

Pension Corporation Research

Evaluating public and private sector pensions: The importance of sectoral pay differentials

18 May 2009

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Key points

- Between 1997 and 2008 UK employment increased by around 10 per cent. Both the public and private sector contributed to this increase. Growth in the public sector was particularly strong in the NHS (+28 per cent), law and order (+25 per cent), and education (+24 per cent). In the private sector growth was particularly strong in banking, finance and insurance (+33 per cent). By contrast, employment in manufacturing dropped by a third over that period. On aggregate, employment growth was accompanied by a gradual shift away from lower-skilled to higher-skilled jobs.
- In 2007-08 median gross weekly pay in the public sector stood at £522 – 14 per cent higher than in the private sector. A similar gap has existed for more than a decade.
- The gap was far more pronounced for females than for males (31 per cent versus 14 per cent). Again, these gaps have existed for more than a decade.
- One important reason why median pay is higher in the public than in the private sector is that lower paid jobs (e.g. in retailing, agriculture or catering) are predominately in the private sector. This is true for both males and females.
- The larger gap between public and private sector median pay for females than for males can to a large extent be explained by the fact that the highest paying industry for females is education. Female median pay in education is 16 per cent higher than for all female employees and 75 per cent higher than median pay in the hotels and restaurants industry. While education is mainly in the public sector, the hotels and restaurants industry, for example, is in the private sector.
- Public sector pay differentials are more compressed across the skills groups than in the private sector. This means that everything else being equal, public sector employees further down the skills/income distribution do relatively better, while those further up the skills/income distribution do relatively worse.
- Regional pay differentials are also more compressed in the public than in the private sector. This means that the public sector compensates its employees relatively less for living in low amenity/high cost areas than the private sector.
- Median pay for a full-time male in London was 30 per cent higher in 2007-08 than the national median. However, within the public sector that gap was only 20 per cent, while it was 35 per cent in the private sector. This difference becomes much more pronounced further up the income distribution, reflecting compositional differences in the workforce but also the more compressed pay structure in the public sector.
- There is evidence that the public sector finds it difficult to recruit and retain high quality staff in low amenity/high cost areas, affecting the quality of services provided.
- A constructive discussion on the relative generosity of public sector pensions should be conducted against this background of public and private sector pay differentials across the skill groups and regions of the UK.

Executive summary

There is currently a strong perception that public sector pensions are generous relative to those offered in the private sector, leading them to be branded "gold plated". This study argues that pensions should be considered deferred pay; as such any discussion on the relative generosity of pension entitlements in the public and private sectors ought to be conducted against the backdrop of relative public and private sector pay levels.

The available evidence shows that median pay is higher in the public sector than in the private sector, but using this to assess relative pay levels is misleading. This is because median pay hides significant variations in relative pay across the genders, occupations and by location. For example, the range of occupations available in the private sector is wider at the lower end of the skills distribution range than in the public sector; for female workers the highest median annual pay in 2008 could be found in education, which is overwhelmingly in the public sector.

There is evidence that public sector pay is relatively generous for employees at the lower end of the income distribution but this does not hold for employees at the upper end of the income distribution. In addition, there is substantial evidence that public sector pay is relatively less generous in the south east of England generally and in London in particular. Compared with the private sector, the public sector compensates its employees too little for living in low amenity and/or high cost areas. As a consequence, the quality of public services varies across the UK, with the public sector especially in the south east finding it difficult to recruit and retain skilled staff.

Anyone contemplating a reform of public sector pensions ought to take into account the knock-on effects on recruitment and retention of highly-skilled staff in all parts of the UK, and in the south east in particular. As an (unintended) consequence, any reform of public sector pensions might demonstrate the need to review the public sector pay setting structure more generally.

i. Introduction and motivation

1. This study is motivated by the growing sentiment in the British general public that public sector employees are getting a much better financial deal nowadays than their private sector contemporaries. The perception is further fuelled by the belief that generous public sector pensions no longer compensate public sector workers for lower lifetime earnings, which might have been the case in the past.
2. This study tries to shed light on the issue of pay differentials between the public and private sector, and as such provides some insights into whether public sector pensions are genuinely nowadays overtly generous.¹ The study argues that studying pension generosity in isolation could lead to a distorted view and that any assessment of the relative generosity of pension provision ought to take into account lifetime earnings. This is because pensions should be treated as deferred pay.
3. The study also argues that an assessment cannot be based on a comparison of median or mean values across the public and private sectors – as has been done in the media – as these aggregate figures do not allow for a like-for-like comparison. A more meaningful comparison ought to take into account individual characteristics such as educational attainment, occupation (often related to educational attainment), gender and location. The study draws heavily on the readily-available Office for National Statistics' Annual Survey of Hours and Earnings to illustrate that regional wage variation differs widely between the public and private sectors.²
4. The study does not set out to answer all the questions relating to public sector pay, its main objective is to highlight a number of important issues that ought to be taken into account when embarking on any policy reform in the area of public sector pay and pensions in the future. For example, the study finds that regional wage variation is more compressed in the public sector than in the private sector. This suggests that the degree to which public sector pensions might be seen to compensate for lower lifetime earnings might vary across the regions of the UK. A nationwide policy reform in the area of public sector pensions might therefore have very different labour market implications in different parts of the UK.
5. As background, section ii. will discuss recent trends in public and private sector employment. Section iii. will compare earnings in the public and private sectors, section iv. will present a number of factors that ought to be taken into account when comparing public and private sector pay, while section v. will discuss the implications of pay differentials on the labour market. Section vi. will touch on the issue of public sector pension reforms.

ii. Recent public and private sector employment trends

Both public and private sector employment have increased over the last decade...

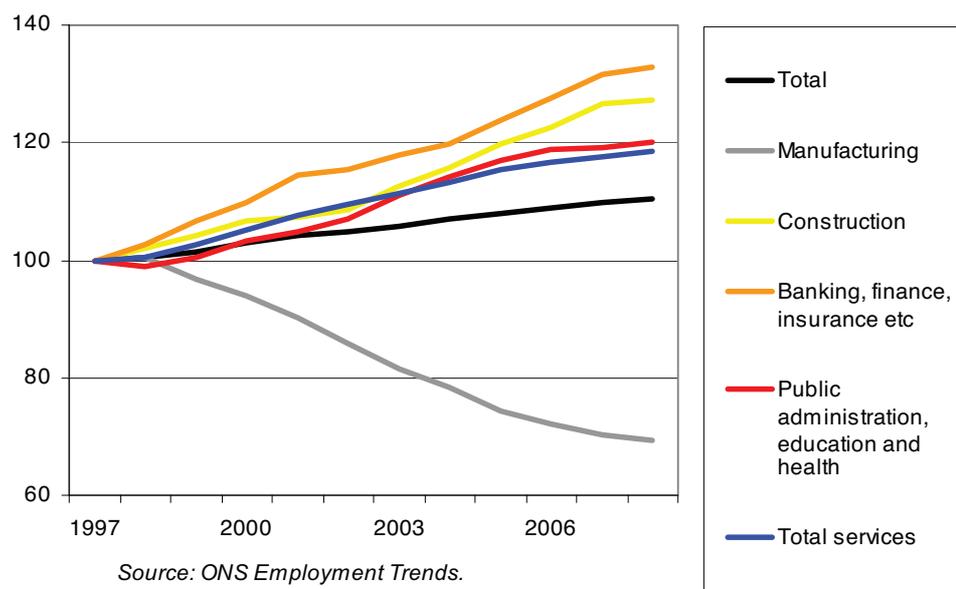
6. Between 1997 and 2008 UK workforce jobs³ increased from 28.7 million to 31.6 million, an increase of around 10 per cent. As Chart 1, overleaf, shows, growth was particularly strong in banking, finance, insurance, etc. (+32 per cent); construction (+27 per cent) and public administration, education and health (+20 per cent). By contrast, growth in workforce jobs was negative in manufacturing. Agriculture, hunting, forestry & fishing; and energy & water (not shown) also showed substantial declines in workforce jobs.

1. The academic literature on this issue is limited. See *What is a public sector pension worth?*, Richard Disney, Carl Emmerson and Gemma Tetlow, Institute for Fiscal Studies, September 2007 for an exception.

2. An alternative data source is the Office for National Statistics' Labour Force Survey. Indeed, many academic papers use this source for their analysis.

3. For a further discussion on workforce jobs, see National Statistics at www.statistics.gov.uk/downloads/theme_labour/wfjreport.pdf (accessed 30 March 2009).

Chart 1: Workforce jobs in industries (1997 = 100)

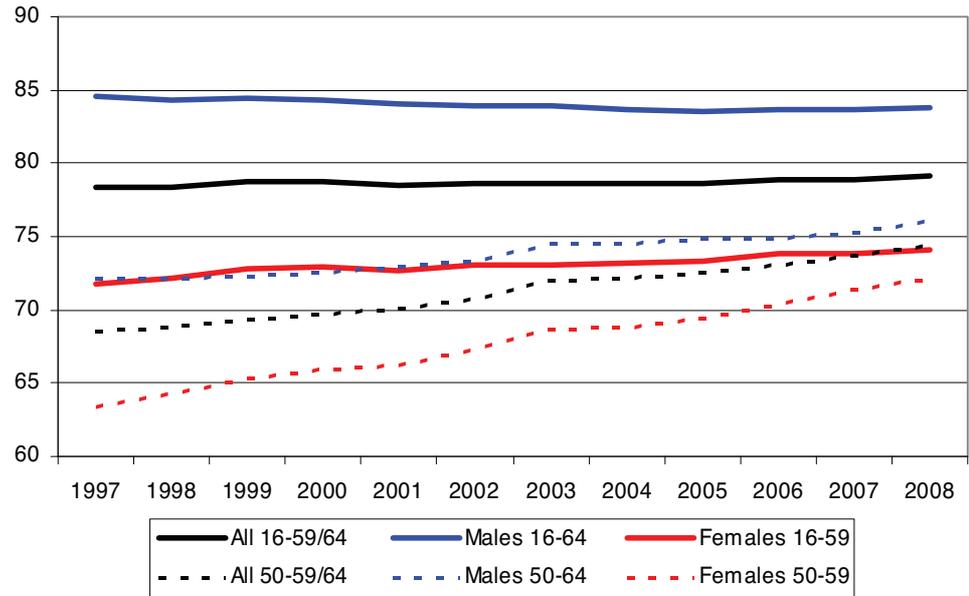


7. The increase in employment (as measured by workforce jobs) reflects mainly an increase in the number of people of working age⁴ from around 35½ million in 1997 to roughly 38 million by 2008⁵ and to a lesser extent a fall in the number of people unemployed. Over the same period the economic activity rate, in other words the proportion of people of a given age group actively engaged in the labour market, be it in employment or seeking employment, remained very stable at around 79 per cent. However, this stability on the aggregate level hides important developments across the genders and cohorts. For example, the economic activity rates of males and in particular females aged 50 years and older increased substantially over those years. At the other end of the age spectrum (16 and 17 year olds) the economic activity rate dropped from 60 per cent in 1997 to less than 50 per cent in 2008 as a result of extended schooling. For the group of 24 to 49 year olds there was a moderate increase in the female economic activity rate, which was offset by a modest decline in male economic activity rates. See Chart 2, overleaf.

4. Generally defined to be those aged 16 up to state pension age, which is currently 60 years for females and 65 years for males.

5. See www.statistics.gov.uk/STATBASE/Expodata/Spreadsheets/D9543.xls accessed 19 February 2009.

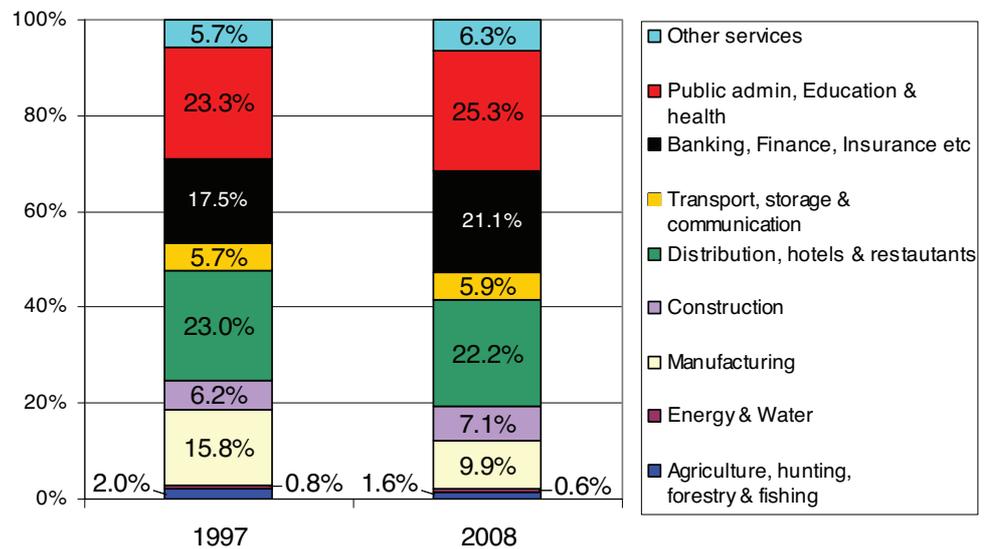
Chart 2: Labour market activity rates (per cent)



Source: ONS Labour market statistics.

8. Different workforce job growth rates across the industries have had a marked effect on the composition of UK employment over the last ten years. The share of people employed in public administration, education & health increased from 23.3 per cent in 1997 to 25.3 per cent in 2008. While distribution, hotels & restaurants continued to be the second biggest industry in terms of employment (1997: 23 per cent, 2008: 22.2 per cent), the financial services industry's share increased markedly from 17.5 per cent in 1997 to 21.0 per cent in 2008 and came a close third. Chart 3 shows the composition of employment across the sectors in 1997 and 2008. The big picture is that over the period 1997 to 2008 there has been a shift away from manufacturing (-6 percentage points) to construction (+1 percentage point), public administration, education & health (+2 percentage points) and banking, finance, insurance (+ 3½ percentage points).⁶

Chart 3: Distribution of employment across industries



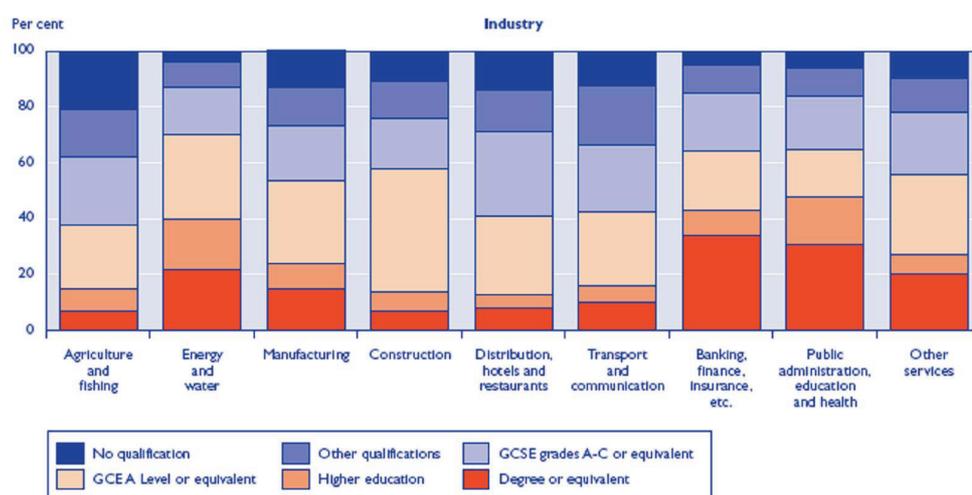
Source: ONS Employment Trends.

6. The composition of the UK workforce is likely to change as a result of the economic recession, which started in 2008.

...with a shift away from low towards higher skilled jobs...

- The shift has been away from low-skilled employment to more highly skilled employment. Chart 4 shows the proportion of working-age people in employment by qualification and industry. The chart shows that the banking, finance, insurance, etc. industry had the highest proportion of people with a degree or equivalent at 34 per cent. This was followed closely by public administration, education and health at 31 per cent. Manufacturing, other services, and energy and water employed between 15 per cent and 22 per cent each of those with a degree or equivalent. Those least likely to be educated to degree level or equivalent could be found in transport and communication, agriculture and fishing, construction, and distribution, hotels and restaurants.

Chart 4: Proportion of working-age people in employment by qualification and industry



Source: ONS Labour Market Trends June 2004, page 231.

...and the public sector more important than ever for females

- The ranking changes slightly once higher education (A level) is taken into account. Nearly half of all employees in public administration, education and health were educated to at least A-level standards, a higher proportion than even in banking, finance, insurance, etc. At the other end of the spectrum the construction, distribution and transport and communication industries employed the smallest share of people educated to at least A-level standard.
- In terms of public and private sector employment there were 2 million full-time males employed in the public sector compared to 8½ million in the private sector. Part-time employment played a much smaller role, with only 266,000 part-time males employed in the public sector versus 1 million in the private sector. The public sector is a much more important employer for females, with 2½ million in full time and 1.8 million in part-time employment. This compares with 3.8 million and 2.7 million in the private sector respectively.⁷

7. The ONS ASHE data also contain two million employees who are not classified into public or private sector. The data also exclude the self employed.

12. Table 1 shows public sector employment trends (measured on a full-time equivalent basis) between 1999 and 2008. The table shows the government's policy priorities over those years, with employment in the NHS increasing by close to 30 per cent (following the 2002 Wanless Review into the future of the British healthcare system), and in education ("education education education") and in law and order ("tough on crime") by around a quarter. Overall full-time equivalent public sector employment increased by around 600,000 from 4.1 million to 4.6 million (+13 per cent). Civil servants make up around ten per cent of the public sector workforce.

Table 1: Public sector employment (full-time equivalent, '000)

	1999	2008	Change (%)
HM Forces	218	193	-11.5
Police	220	275	25.0
Public admin	969	1,005	3.7
Education	794	986	24.2
NHS	982	1,259	28.2
Other health & social	292	275	-5.8
Other	605	609	0.7
Total	4,080	4,602	12.8

Source: ONS.

13. Much of the increase in public sector employment (around 80 per cent) was in female employment.⁸ To a large extent this reflects the fact that female employment rates have historically been lower than male employment rates but that socio-economic changes over the last few decades have led many more females to enter the labour market than would have been the case in the past. Many of these younger females are well educated and are well suited to take on functions in the high-skill health or education sectors. The public sector has also taken a leading role in providing flexible working arrangements, which makes it easier for females to achieve an acceptable work-life balance. It is likely that the increase in female economic activity rates for the age groups 25 to 49 years (as stated above) can to a large degree be explained by the increase in female public sector employment. See Table 2 below.

Table 2: Public sector employment by gender ('000)

	1997	2008	Change
Males full time	1,899	2,005	106
Males part time	164	266	102
Females full time	2,007	2,553	546
Females part time	1,505	1,812	307

Sources: ONS ASHE 1997 and 2008.

8. See ONS ASHE 1997 and 2006 or 2008.

iii. Comparison of earnings in the public and private sectors

14. In February 2009 the Sunday Times published an article on public sector pay, arguing that:⁹

"In fact, public sector pay has overtaken private sector pay in recent years. Figures from the Office for National Statistics released last week show that the median full-time weekly wage in the public sector last year was £522 compared with £460 in the private sector....About 90% of public sector employees belong to "defined benefit" pension schemes, which guarantee an income in retirement usually based on final salary. Only 12% of private sector workers enjoy such a benefit...Taxpayers are paying twice for public sector pensions (apart from the local government scheme)...First, they pay for the employers' contributions; second, they have to make up shortfalls, running at about £2.8 billion a year..."

Median pay has been higher in the public sector than in the private sector for a long time...

15. This pay gap is not a recent phenomenon but can be traced back to at least 1997 using the ONS' ASHE data set.¹⁰ Table 3 shows that the median full-time public sector pay has been consistently above private sector pay over the last decade, with the premium fluctuating between 10 and 14 per cent.

Table 3: Public sector employment (full-time equivalent, '000)

	1997	2000	2003	2008
Public sector	349.3	384.8	431.3	522.6
Private sector	309.2	345.5	392.5	460.0
Ratio public/private	1.13	1.11	1.10	1.14

Median gross weekly pay (females)

	1997	2000	2003	2008
Public sector	314.6	349.4	396.5	480.7
Private sector	237.3	269.7	307.5	366.1
Ratio public/private	1.33	1.3	1.29	1.31

Median gross weekly pay (males)

	1997	2000	2003	2008
Public sector	389.0	423.7	473.9	574.4
Private sector	347.4	384.8	435.7	503.7
Ratio public/private	1.12	1.10	1.09	1.14

Sources: ONS ASHE 1997, 2000, 2003 and 2008.

...but there are good reasons for this...

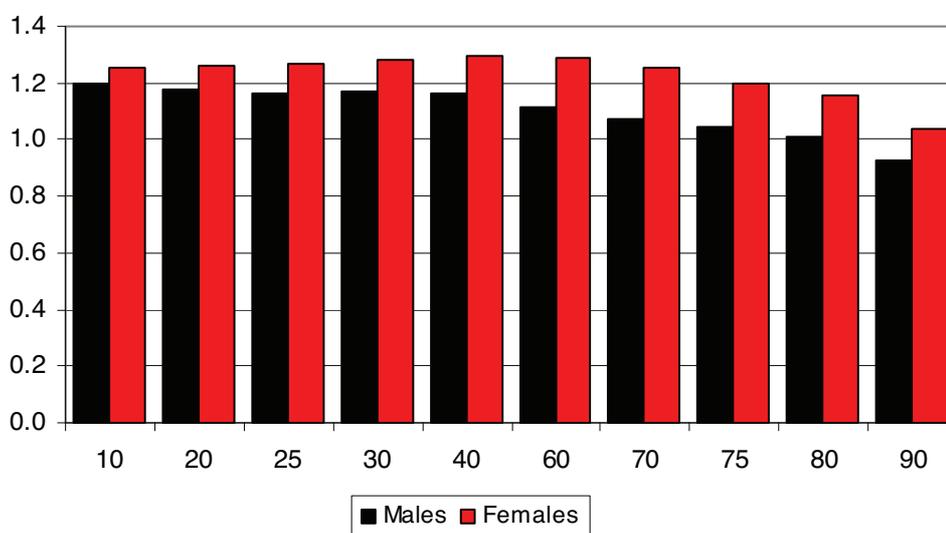
16. The table also shows that the ratio is substantially larger for females than for males, with female median full-time weekly pay in the public sector nearly a third higher than in the private sector. For males the ratio has varied between 1.09 and 1.14. Furthermore, the pay gap between males and females has consistently been lower in the public sector (fluctuating around 20 per cent) than in the private sector (fluctuating around 40 per cent). This suggests that either gender pay differentials are much smaller in the public sector than in the private sector and/or that males and females do more similar jobs in the public sector than in the private sector.
17. The fact that median full-time weekly pay is higher in the public sector than in the private sector does not necessarily imply that public sector employees get a better pay deal during their working lives (and hence ignoring here any pension arrangements that might exist) than private sector employees. To come to this conclusion, one would have to demonstrate that someone with the same characteristics (e.g. educational attainment, occupation, location of workplace) earned more in the public sector than in the private sector. This conclusion cannot be drawn from median pay statistics.

9. Recession? What Recession? at www.business.timesonline.co.uk/tol/business/industry_sectors/banking_and_finance/article5683659.ece (accessed 08.02.2009).

10. See ONS Annual Survey of Hours and Earnings (ASHE). Before 1997 a different data set was used.

18. Chart 5 shows the ratio of public sector to private sector gross weekly pay for full-time males and females along the income percentiles. The chart confirms the above findings that the female ratio is higher than the male ratio. For males this ratio peaks at the 10th percentile at 1.2 and then gradually declines to 0.93 for the 90th percentile. For females the ratio remains close to 1.3 up to the 60th percentile and then gradually declines towards 1.04 for the 90th percentile.

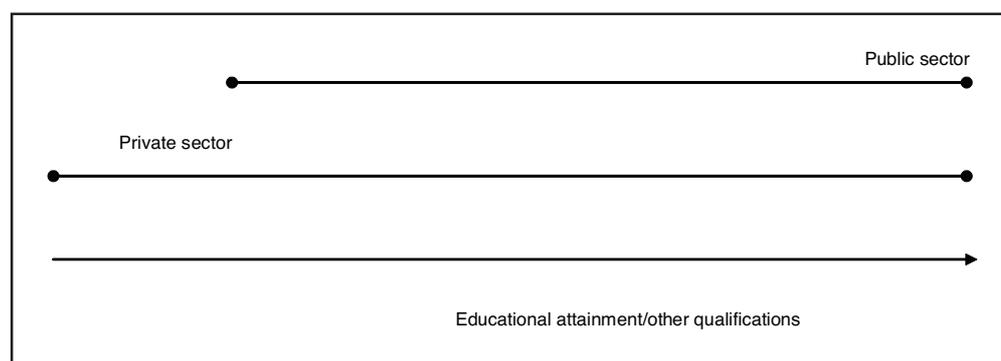
Chart 5: Ratio public/private sector median gross weekly pay in percentiles (full time, 2008)



Source: ONS, ASHE 2008.

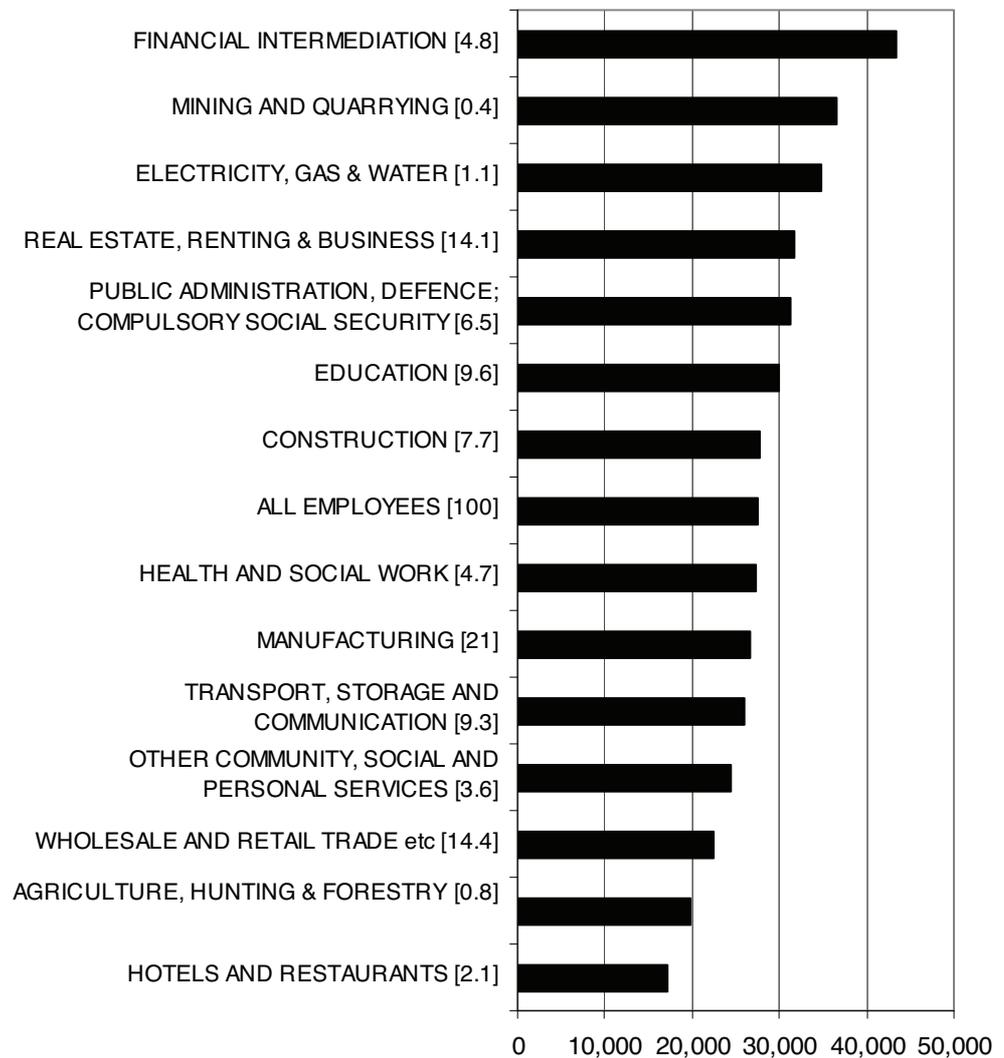
19. It is important to note that the underlying income distributions are not the same and that, for example, a male full-time employee in the public sector at the 20th percentile on the public sector income distribution might have a different set of qualifications and skills, and job responsibilities to his private sector counterpart. Comparing public and private sector median pay or pay along the income percentiles will not compare like with like.
20. Chart 6 provides a stylised distribution of occupations in the public and private sectors, which illustrates the above point. It suggests that the range of occupations available in the private sector will be wider at the lower end of the skills distribution than in the public sector. This should also generally be reflected in the pay distribution. Everything else being equal (for example individuals with similar characteristics earn similar wages in the private and public sectors) this alone will lead the median to be higher in the public than in the private sector.

Chart 6: Stylised distribution of public and private sector occupations



21. That this is indeed most likely the case can be seen by looking at the median annual pay in the different sectors of the UK economy (Chart 7). Median annual pay for full-time males across all sectors stood at £27,500 in 2008. The chart shows that median annual pay in manufacturing, transport, and wholesale and retail trade was lower than the overall median. This is to be expected given the relatively low level of educational attainment of employees in these sectors (see Chart 4, page 8). These three sectors employed around 45 per cent of all full-time employed males and will most likely have been all in the private sector, pulling down the entire income distribution for male private sector employees.

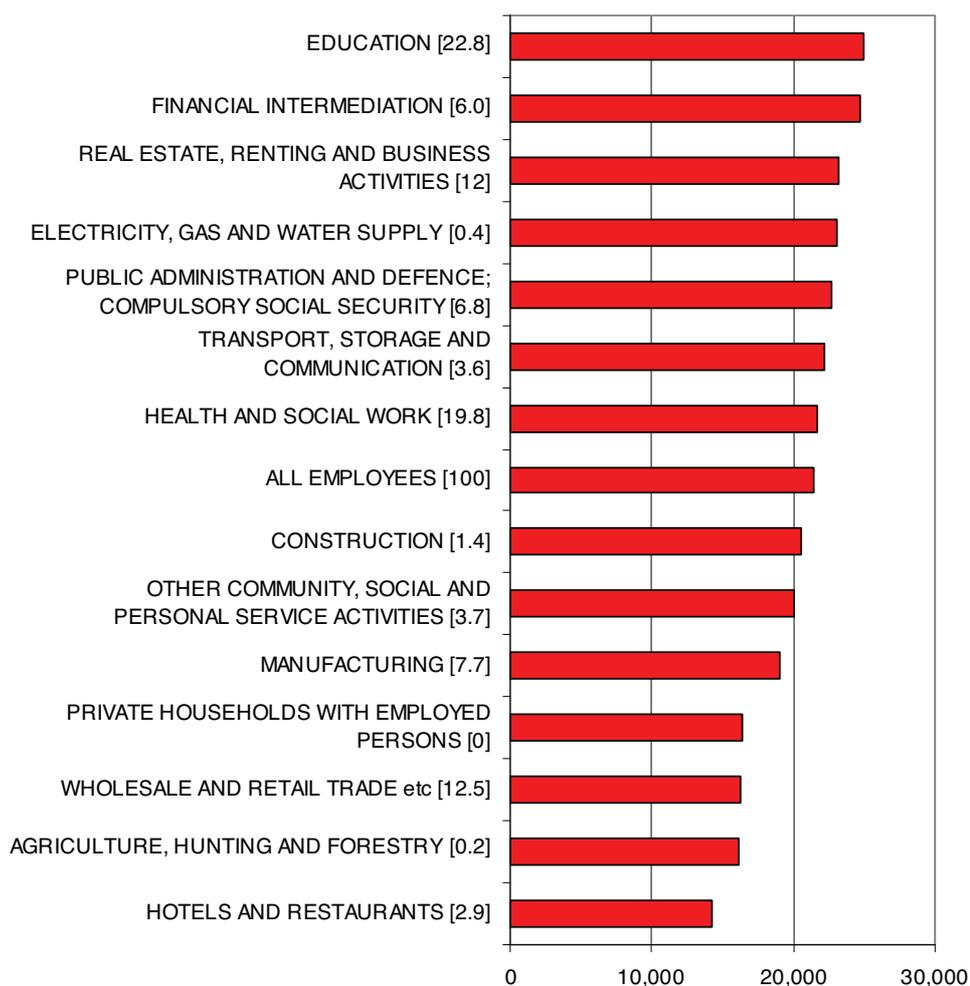
Chart 7: Median annual pay in different industries (£, full-time males)



Figures in [brackets] show the share of the specific industry in total employment
Source: ONS ASHE 2008.

22. The picture is even more obvious for females (Chart 8, overleaf). The highest median annual pay in 2008 could be found in education, which will have been overwhelmingly in the public sector. Nearly a quarter of all full-time females are employed in that sector. At the other end of the pay scale, around a quarter of females were employed in the hotels and restaurants, wholesale and retail trade and manufacturing sectors; all of which will have been in the private sector. It is therefore not surprising that on an aggregate level the income distribution appears to be relatively generous for females in the public sector.

Chart 8: Median annual pay in different industries (£, full-time females, 2008)



Figures in [brackets] show the share of the specific industry in total employment
Source: ONS ASHE 2008.

...such as the fact that most low paid jobs are in the private sector.

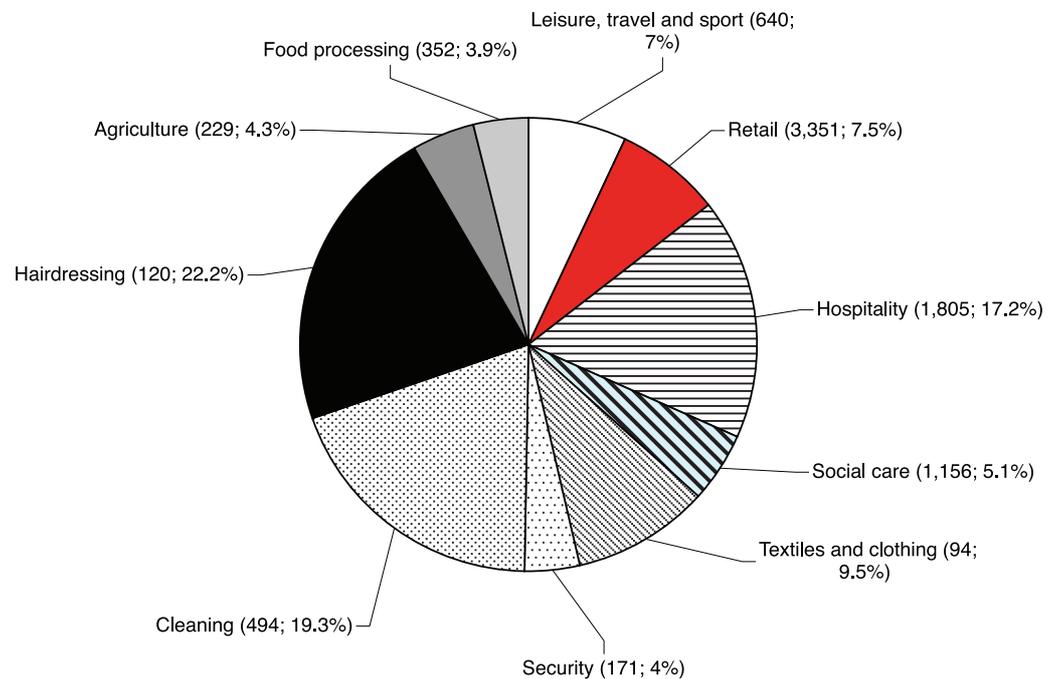
23. Further evidence that low paid jobs are mainly if not entirely clustered within the private sector can be found by analysing who is affected by the National Minimum Wage. The Government-appointed Low Pay Commission is in charge of monitoring developments in the low pay sectors and to make recommendations regarding the National Minimum Wage. According to the Low Pay Commission: "...low-paying sectors are those industries or occupations that employ a high number of minimum wage workers or those in which a high proportion of jobs are paid at the minimum wage..."¹¹ The Low Pay Commission goes on to say that:

"[R]etail...was the largest low-paying sector...with 3.4 million jobs (40 per cent of all jobs in the low-paying sectors)...7.5 per cent of these retail jobs were paid at or below the minimum wage. Hospitality was the next largest sector with 1.8 million jobs (22 per cent of all jobs in the low-paying sectors). In this sector, 17.2 per cent...were paid at or below the minimum wage. The third largest low-paying sector, social care, had 1.2 million jobs (14 per cent of all jobs in the low-paying sectors), but only 5.1 per cent of these were paid at or below the minimum wage. Together the jobs in these three sectors accounted for three-quarters of all employee jobs in the low-paying sectors. They also accounted for over 50 per cent of all minimum wage employees. However, the two low-paying sectors with the largest proportion of employees paid at or below the minimum wage were hairdressing (22.2 per cent) and cleaning (19.3 per cent), although together these accounted for just 7 per cent of all minimum wage jobs."

11. National Minimum Wage Low Pay Commission Report 2008, Low Pay Commission, 2008, page 6.

24. Chart 9 provides additional information, which suggests that with the possible exception of social care all low paying sectors can be found entirely in the private sector.

Chart 9: Number of jobs ('000) and the proportion of minimum wage jobs in each low-paying sector (Great Britain, 2007)



Source: Low pay Commission, 2008.

iv. Towards a meaningful comparison

Comparing like with like requires taking account of individual characteristics...

25. In the previous section it was argued that a comparison of median pay in the public and private sectors should not be used to draw conclusions regarding relative pay generosity. This should only be done once individual characteristics have been taken into account. Important individual characteristics to consider are:

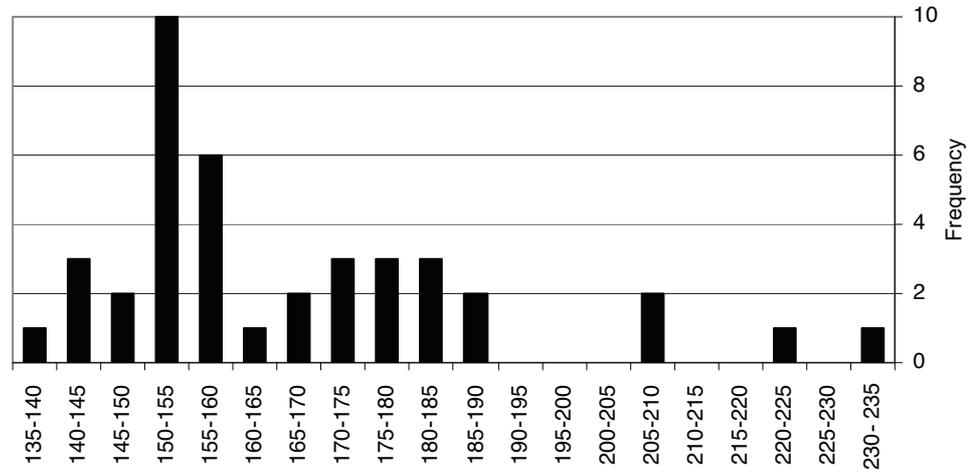
- Educational attainment;
- Occupation (4 digit SOC);
- Location of work or residence; and
- Age.

...such as educational attainment or occupation...

26. Educational attainment or as a proxy occupation is a major individual characteristic, which ought to be factored in when comparing public sector pay with private sector pay. Everything else equal, how does public sector pay compare to private sector pay for individuals with comparable educational backgrounds or – as a proxy for education – occupation? For example, how much does a middle ranking manager earn in the public and private sectors, how much an administrator?

27. The following discussion is not meant to be exhaustive, instead it is meant to illustrate some of the issues involved. First, consider those at the very top end of the civil service and private sector income distribution.¹² At the very top of the senior civil service are 40 permanent secretaries. As Chart 10 shows, their base salary in 2008 was within the range of £135k and £235k (for the Head of Home Civil Service), with a median of around £160k.¹³

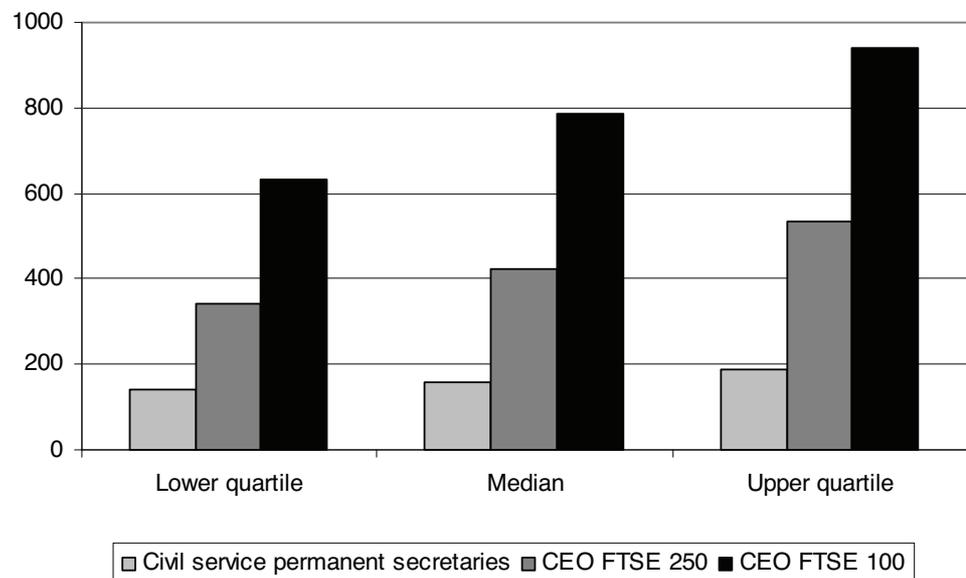
Chart 10: Distribution of UK permanent secretaries' base salaries ('000, £)



Source: ONS Civil Service Statistics 2008

28. Given their seniority and set of responsibilities, permanent secretaries are best compared to chief executive officers (CEOs) in the private sector. Chart 11 shows that the base pay received by permanent secretaries was only a fraction of that received by CEOs of FTSE100 and FTSE250 companies.¹⁴

Chart 11: Median base pay of senior executives (£ '000, 2008)



Sources: FTSE350 Executive Pay 2008, Addleshaw Goddard, and author's own calculations based on ONS Civil Service Statistics 2008.

12. Senior civil servants are not necessarily the highest paid in the public sector. Indeed, there are officials earning substantially more, for example at regulators, Bank of England, local government or the NHS.

13. Civil Service Statistics 2008, Office for National Statistics, 2008.

14. The pay distribution for CEOs of FTSE 350 companies lies between those of FTSE100 and FTSE350 companies.

29. The Office for National Statistics publishes earnings data based on the 4-digit Standard Occupational Classification (S.O.C.) system. The breakdown is very precise, for example it captures very specific occupations such as architects (code 2431), laboratory technicians (code 3111), receptionists (code 4216), or tyre, exhaust and windscreen fitters (code 8135). Table 4 provides median weekly pay data for senior, medium and lower level occupations where public sector employees can be identified explicitly.

Table 4: Median pay in public and private sectors (full-time all, £ weekly pay)

Senior level (managers and senior officials)	
Senior officials in national government (1111)	1,276
Directors and chief executives of major organisations (112)	1,878
Medium level (business and public service professionals)	
Legal professionals (241)	834
Business and Statistical Professionals (242)	723
Architects, Town Planners, Surveyors (243)	685
Public Service Professionals (244)	570
Librarians and related professionals (245)	487
Lower level (administrative occupations)	
Government and related organisations (411)	372
Finance (412)	373
Records (413)	362
Communications (414)	453
General (415)	339

Standard Occupational Classification in brackets

Source: ONS ASHE 2008 Table 14.1a.

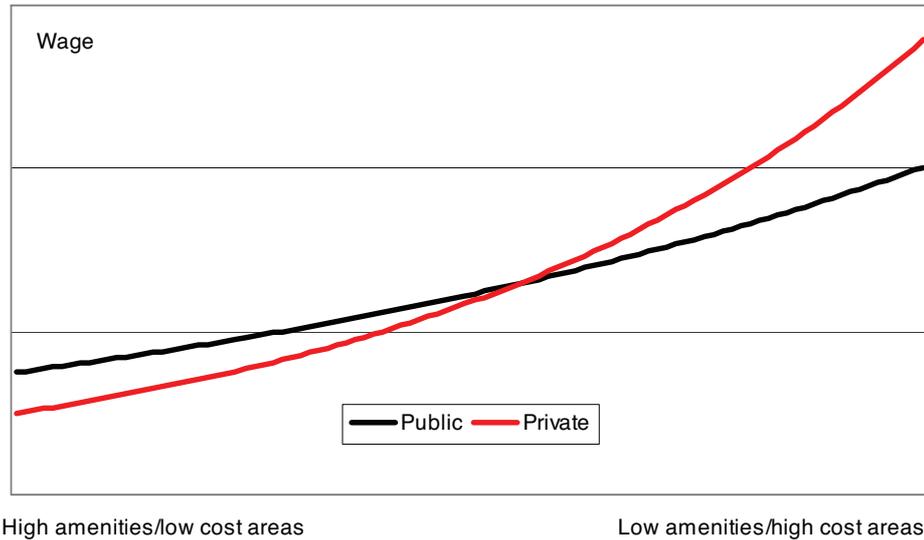
30. The table shows that there remains a substantial income gap between public sector and private sector workers on the senior level below that of the permanent secretaries and CEOs (classification 1111 captures around 7000 individuals, classification 1112 around 60,000 individuals). The median for the private sector workers is around 50 per cent higher than for their public sector comparators.
31. On the medium level, median pay for public service professionals trails that for three out of the four other 3-digit classifications but is comfortably ahead of that for librarians and related professionals (also note that legal professionals or town planners might for example work for local government).
32. On the lower level median pay for administrators in government and related organisations appears to be about average.¹⁵
33. Location is another important characteristic, which ought to be taken into account when looking at pay differentials across the sectors.

...or location

15. For a more general discussion on these issues, see *Public-private sector wage differentials around the world: Methods and evidence*, Richard Disney, University of Nottingham and Institute for Fiscal Studies, 2007.

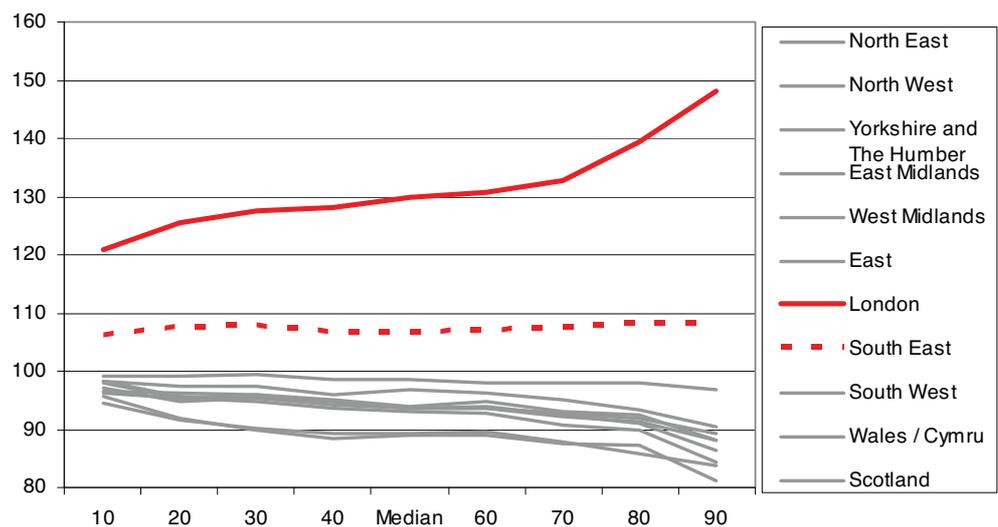
34. The academic literature on spatial wage differentiation is quite detailed on this topic. The general picture of UK public and private sector spatial wage variation is that the private sector compensates its employees more highly than the public sector for working in a low amenity and/or high cost area. On the same token, the private sector pays relatively less than the public sector in high amenity and/or low cost areas. In other words private sector pay is more sensitive to market forces than public sector pay. Chart 12 shows a stylised wage distribution. The policy implications flowing from this will be discussed in more detail in section v.

Chart 12: Stylised spatial wage variation public/private sectors



35. Chart 13 shows the regional wage variation along the income distribution for all full-time males (public and private sector). The variation is shown as a percentage of the UK average. Two features stand out: first, there are only two regions in which weekly pay is above the UK average. In seven regions the pay is below average.¹⁶ Second, and related to the first observation, London is unique as a region, with median weekly pay 20 per cent higher than the UK average on the 10th percentile and nearly 50 per cent higher for the 90th percentile.

Chart 13: Regional pay dispersion (full-time males, UK average = 100, based on weekly pay)

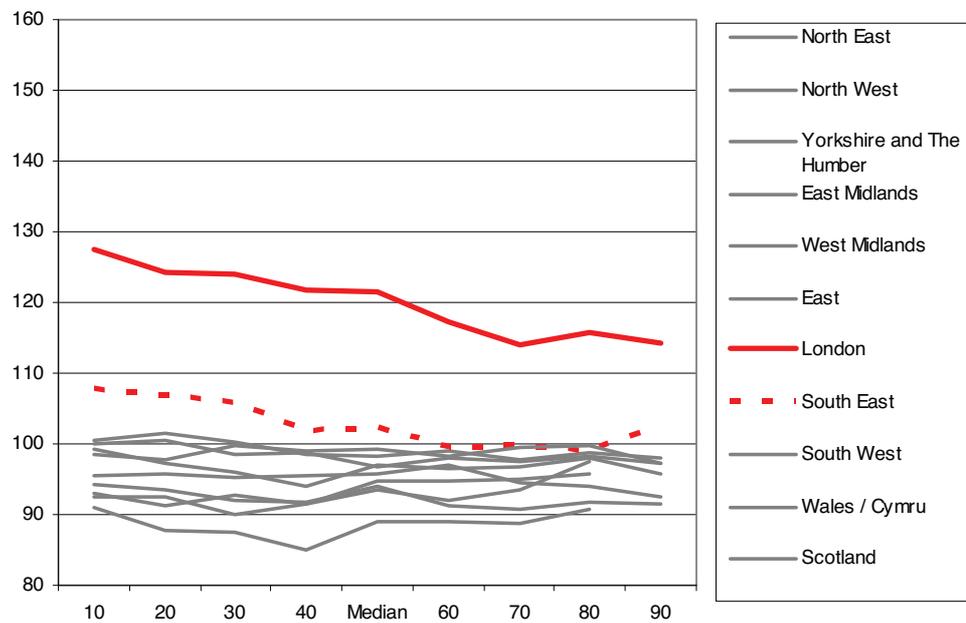


Source: ONS ASHE 2008.

16. There are no data for Northern Ireland.

36. As with the above comparison between public and private sector pay, one cannot conclude from the wide regional wage variation that all full-time males in London earn more than the UK national average. The variation is also due to a different composition of the workforce in London relative to that for the UK as a whole. For example, managers and senior officials make up 22 per cent of all full-time male employment nationally compared with 29 per cent in London, while elementary occupations such as farming, construction, catering or cleaning account for 11.3 per cent of all employment nationally but only 8.9 per cent in London. In short, London's workforce is geared towards higher-valued added jobs (see Annex A, page 30, for a detailed breakdown of the composition of the workforce).
37. Charts 14 and 15 show that London's dominant position in terms of weekly pay is mainly due to private sector pay differentials. As Chart 14 illustrates, there is also some regional pay variation within the public sector but the degree of variation is smaller than in the economy overall. For example, the highest relative mark up in London can be found on the 10th percentile (around 30 per cent above the national average); for the 90th percentile this mark up has declined to around 15 per cent.

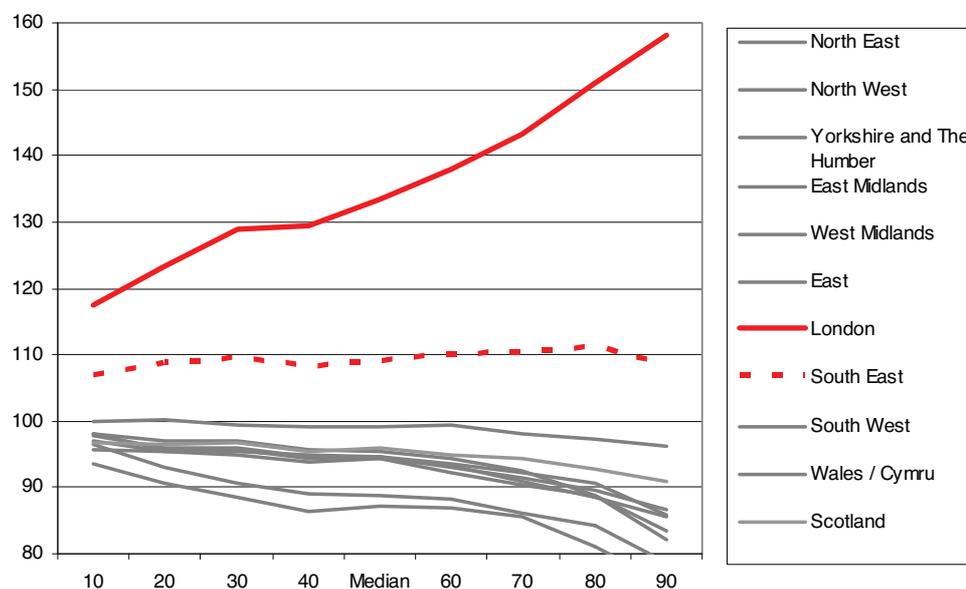
Chart 14: Regional pay dispersion in public sector (full-time males, UK public sector average = 100, based on weekly pay)



Source: ONS ASHE 2008.

38. Chart 15 shows the regional wage variation in the private sector. It shows that the London mark up is less than 20 per cent on the 10th percentile but then steadily rises to reach 60 per cent for the 90th percentile.

Chart 15: Regional pay dispersion in private sector (full-time males, UK private sector average = 100, based on weekly pay)

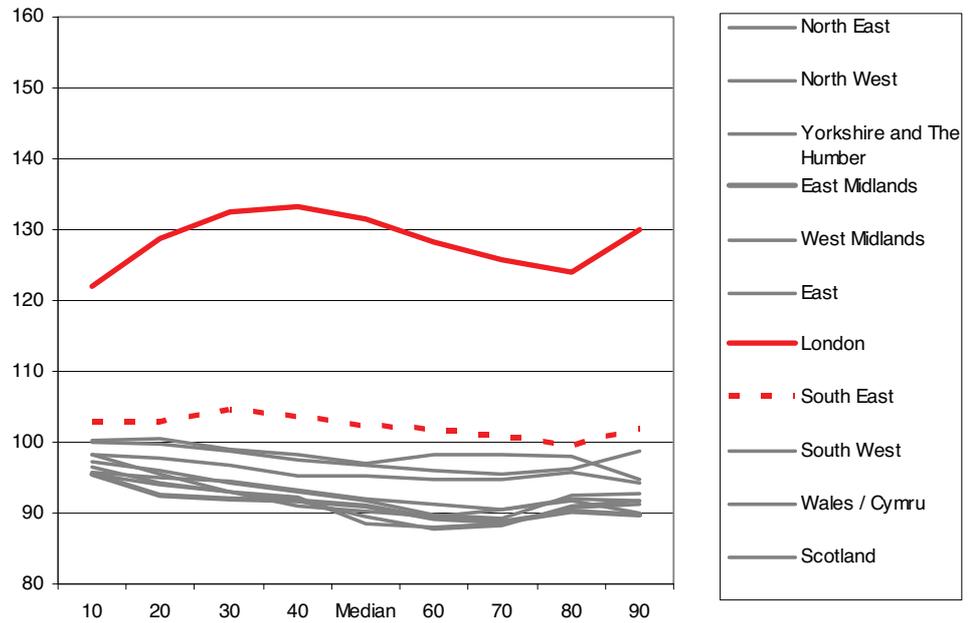


Source: ONS ASHE 2008.

39. The key difference between male public and private sector pay variations across the regions is that with the exception of those on the 10th percentile, male public sector workers command a much smaller mark up in London over the national average than their private sector counterparts. This difference becomes the more marked, the higher up the pay distribution one goes.
40. One explanation for this could be that even at the upper end of the income distribution, male public sector jobs in London resemble more the national average than in the private sector. For example, senior managers in NHS hospitals will have similar backgrounds and responsibilities regardless of whether they are located in London or elsewhere. By contrast, with London home to the majority of the larger publicly-listed companies in the UK and the UK base for many international companies (and in some instances headquarters), London-based male managers will generally demand a pay premium. Equally, other professionals in London from lawyers to architects to advertising executives will generally be involved in more specialised and higher value-added roles than the national average, again justifying a pay premium. In addition, London is the most international city in the UK and as such pay needs to be competitive on a global stage too. This dimension will be important in the private sector but less so in the public sector.

41. A similar picture emerges for females. Charts 16 to 18 replicate the information for males shown in Charts 13 to 15. Along every percentile, median pay for full-time females in London is between 20 and 30 per cent higher than the national average. Unlike for males, there is no widening at the upper end of the pay scale though. As for males, the median is also slightly higher than the national average in the South East.

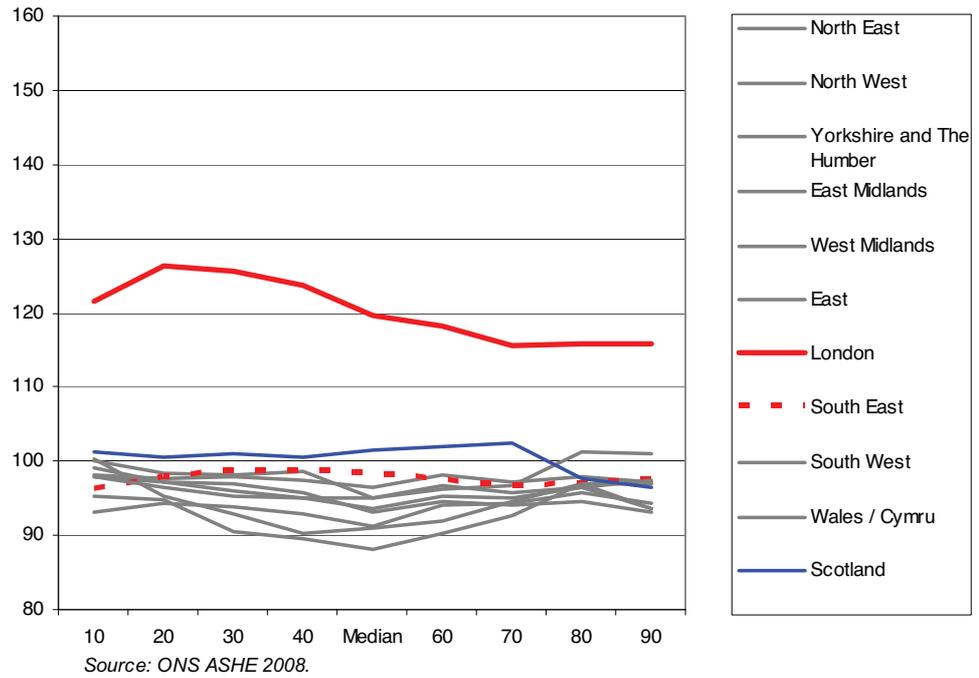
Chart 16: Regional pay dispersion (full-time females, UK average = 100, based on weekly pay)



Source: ONS ASHE 2008.

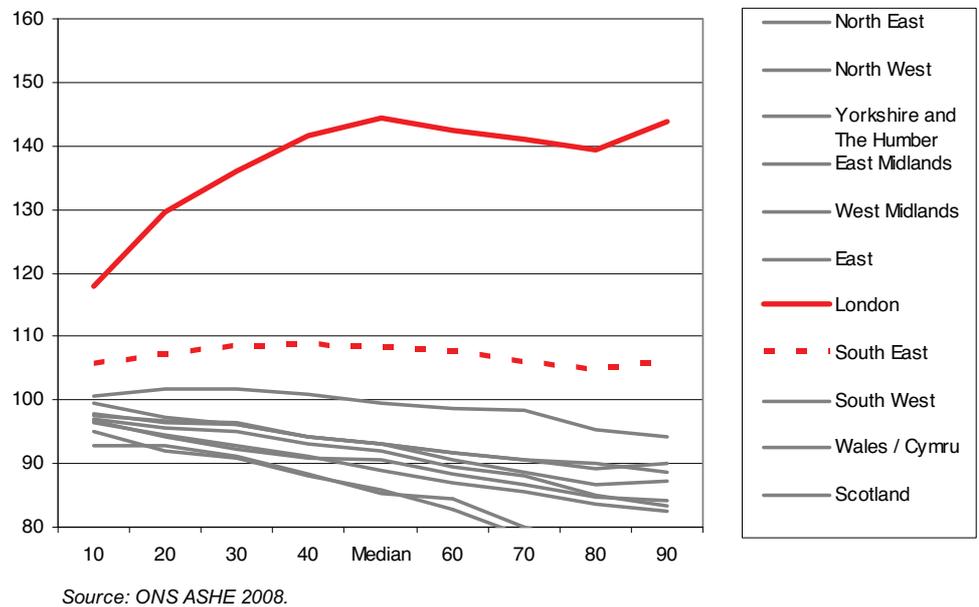
42. The regional pay variation in the public sector for females differs from that for males in one aspect: while London commands a premium (peaking for workers on relatively low pay), median pay in the South East is in fact below the national average. Interestingly, median pay in Scotland is marginally above the national average.

Chart 17: Regional pay dispersion in public sector (full-time females, UK public sector average = 100, based on weekly pay)



43. In the private sector though the same picture emerges for female regional pay variation as for males: median pay in London is substantially higher than the UK national average and higher for further up the pay scale than lower down. Median pay in the South East is also above the national average and with a mark up of around 10 per cent very similar to the mark up for males.

Chart 18: Regional pay dispersion in private sector (full-time females, UK private sector average = 100, based on weekly pay)



44. The above discussion suggests that regional public sector pay differentials do not reflect fully market outcomes in the private sector. In particular pay in London is relatively higher at the lower end of the income distribution; the opposite to that seen in the private sector. Another observation worth making is that median pay in the South East for females is lower than the national average – in contrast to that seen for males in the public sector and for females in the private sector. Everything else equal, this suggests that females in the public sector in the South East do relatively badly financially.
45. That the regional pay variation identified is not entirely due to compositional effects of jobs in London and the rest of the UK can be seen by looking at like-for-like pay differentials. Tables 5 and 6 show the London median pay for males and females relative to the national median for the 4-digit occupations introduced in Table 4.¹⁷ While even these classifications are probably still too wide to allow for an exact like-for-like comparison (for example one should not necessarily compare a legal professional working at the Courts of Justice with, say, a family lawyer in a market town), the sample sizes are already often very small, with the result that some of the numbers are not statistically robust. Keeping this in mind, the following picture emerges: mean pay for senior officials in local government is more or less the same in London as in the UK overall, while median pay for directors and chief executives of major organisations in London is a sixth higher than the national average. The median pay differential between London and the UK average is particularly pronounced for legal professionals, and business and statistical professionals. Median pay for public services professionals in London is higher than the UK average too but by a more moderate 10 per cent. Within the administrative occupations, the median pay differential between London and the UK average appears to be in line with the differential recorded in other industries. The above is true for males and females alike.

17. Note that senior officials in national government have been replaced with senior officials in local government as the former are nearly all based in London.

Table 5: London median pay in public and private sectors (full-time males, national average = 100)

Senior level (managers and senior officials)	
Senior officials in local government (1113)	101*
Directors and chief executives of major organisations (1112)	116*
Medium level (business and public service professionals)	
Legal professionals (241)	140
Business and Statistical Professionals (242)	120
Architects, Town Planners, Surveyors (243)	116
Public Service Professionals (244)	111
Librarians and related professionals (245)	101
Lower level (administrative occupations)	
Government and related organisations (411)	122
Finance (412)	122
Records (413)	118
Communications (414)	112
General (415)	121

*Note that this is based on mean rather than median pay due to data limitations.

Source: ONS ASHE 2008.

Table 6: London median pay in public and private sectors (full-time females, national average = 100)

Senior level (managers and senior officials)	
Senior officials in local government (1113)	n/a
Directors and chief executives of major organisations (1112)	113*
Medium level (business and public service professionals)	
Legal professionals (241)	150
Business and Statistical Professionals (242)	120
Architects, Town Planners, Surveyors (243)	119
Public Service Professionals (244)	113
Librarians and related professionals (245)	111
Lower level (administrative occupations)	
Government and related organisations (411)	127
Finance (412)	129
Records (413)	114
Communications (414)	123
General (415)	124

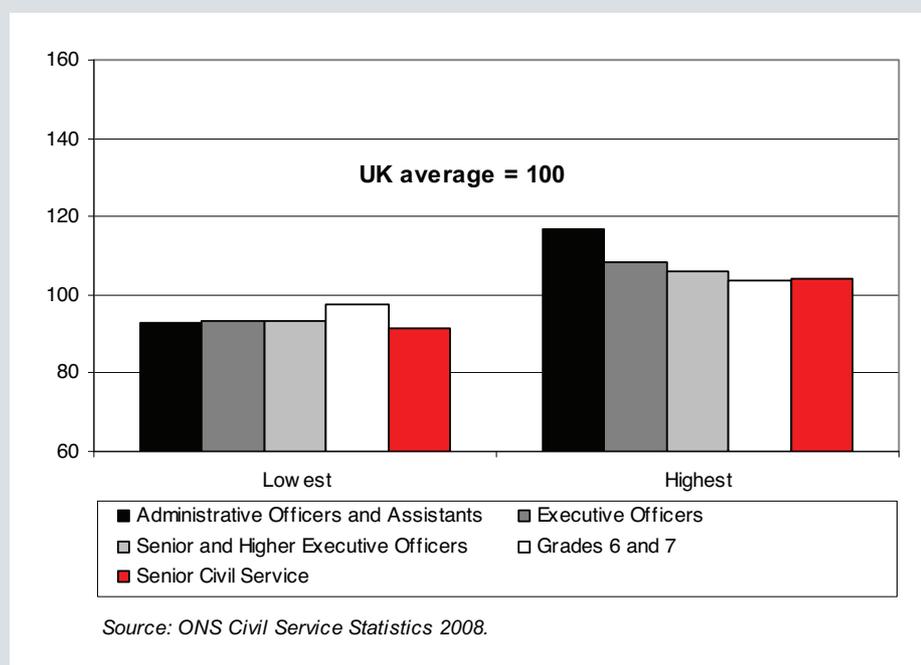
*Note that this is based on mean rather than median pay. The figure is similar though for median pay.

Source: ONS ASHE 2008.

46. Tables 5 and 6 suggest that public sector pay differentials narrow the higher up the seniority and income level. Box 1, overleaf, discusses regional pay differentials within the civil service, which support the above findings.

Box 1: Median earnings by region and responsibility level in the civil service

The regional variation of median pay in the civil service is limited, with pay in the lowest paying regions within ten per cent of the national average. The picture is similar above the average, with only the median for administrative officers more than 10 per cent higher in the highest paying region than the national average. By contrast, median pay in the highest paying region for higher ranking officials (Grades 6 and 7, Senior Civil Service) is less than 5 per cent above the national average (note that the highest paying region for the SCS is the West Midlands).



47. It should be noted that even a higher like-for-like income in London than in the UK on average does not mean that individuals are necessarily financially better off than in other regions of the UK. This is because the cost of living is also substantially higher in London than in other parts of the UK so that a higher like-for-like income in many cases merely compensates for higher living costs. In 2005 the Office for National Statistics published relative regional consumer prices for 2004.¹⁸ The cost of living was higher in London than in other regions, with overall costs nearly 10 per cent higher than the national average partly due to substantially higher housing costs.
48. The analysis suggests the following: London's pay level is substantially higher than the national average for males and females, and across the income distribution. The South East also has above-average pay. One reason why this is the case is that the composition of jobs is different in London, with the share of people in high-value added jobs higher than in the rest of the country.
49. In the private sector, the pay differential between London and the national average is particularly pronounced at the upper end of the income distribution. It is likely that even within the narrow classifications of the ONS's 4-digit SOC system the higher value added jobs will be predominantly located in London. By contrast, in the public sector the pay differential between London and the national average is most pronounced at the bottom of the income distribution. Given that lower ranking public sector workers will do similar jobs across the regions, it is likely that this reflects a genuine like-for-like mark up. In all cases higher median pay in London than in the UK generally compensates to a certain extent for higher living costs.

18. *Relative regional consumer price levels in 2004*, Office for National Statistics, Economic Trends 615, February 2005.

50. Two further observations: first, the pay differential between high earning public and high earning private sector workers in London is very substantial. While career decisions are based on a number of factors of which pay is only one,¹⁹ the opportunity costs in terms of potential lost earnings for a high-flying public sector worker are very substantial. It should be noted that high-flying individuals in the public and private sectors are generally mobile. Second, the below average pay for public sector females in the South East appears out of line with what is seen for public sector males and private sector females. Everything else being equal, as a result the public sector might find it more difficult to attract and retain female employees in that region of the UK than perhaps elsewhere.

v. Pay differentials and their implications on the labour market

51. The above findings confirm the conclusions of a substantial body of academic literature on this subject. In addition to generating Standardised Spatial Wage Differentials (SSWDs) between areas based on the human capital or age structure of the workforce, the work environment or the attractiveness ("amenities") or cost-of-living level of the area itself, much of that body of literature has also been concerned with the labour market implications of the spatial wage differentials between the public and private sectors. The main thrust of the literature has been that the distinct pattern of wage variation across the regions in the public and private sectors makes it difficult for the public sector to deliver a similar quality of public services across the UK.
52. One of the main proponents of this view is Andrew Oswald, an economist from the University of Warwick. For example, in 2002 Oswald argued that given existing pay differentials the public sector would find it relatively more difficult in the South East and in particular in London to attract and retain the right talent. To deal with this issue, Oswald argued that public sector employees in central London ought to earn 50 per cent more than they did back then.²⁰ More recent analysis by Blanchflower and Oswald²¹ shows that the situation has not changed much since 2002, with the two authors establishing that for teachers "...high-wage areas continue to have systematic problems with vacancies and the quality of employees."

19. It can be expected that individuals try to optimise their career decisions. Pay matters but so does job security; location of the available job opportunities relative to location of residence; working hours (including number of days of holiday); flexibility to balance work, leisure and other activities such as providing informal care for children or elderly parents; career prospects within a company; the "friendliness" of the colleagues or the perceived intrinsic value of an occupation, for example working in the third sector.

20. *London's Public-Sector Workers Need to be Paid 50% More Than Those in the North*, Andrew Oswald, March 2002 at www2.warwick.ac.uk/fac/soc/economics/staff/faculty/oswald/regionalpublicpaymarch2002.pdf

21. *Revealed Problems and the Future of the Area Cost Adjustment (ACA)*, David G. Blanchflower and Andrew J. Oswald, A Report for Worcestershire County Council, February 2008.

53. The picture is similar in the National Health Service (NHS). Ada Ma *et al.*, for example, examined the impact of spatial wage variation on NHS recruitment and retention.²² They find that vacancy rates for nurses are affected by differences between local labour markets in private sector pay. While private sector firms pay their staff what is necessary to attract and retain them in a particular area (reflecting cost-of-living or local amenities), the NHS does this less so. Given that many NHS employees have transferable skills, which can also be used in the private sector, this makes it more difficult for the NHS to attract and retain nurses in more expensive and/or less attractive areas. Ma *et al.* also find that this relationship does not hold for doctors. This suggests that doctors might believe that they have relatively few private sector options, which are more attractive than staying within the public health sector. This appears reasonable given the highly specialised nature of doctors' skills. Box 2 discusses what this might mean for the usefulness of comparing pay or pensions of "high-flying" public and private sector workers based on medical doctors.

Box 2: Comparing like with like – the case of doctors and teachers

Who is a public sector high-flyer, who a private sector high-flyer?

Who has made a middling career?

It could be argued that NHS doctors form a large part of the public sector high flyers and as such offer a useful yardstick against which pay and pension generosity could be evaluated. One problem with this argument is that there are hardly any private sector doctors who could be used for this comparison. Most doctors work within the public sector, and their salaries are set within the public sector and not through market forces. Unlike goods and many services, most medical services are also difficult to trade and are hence generally locally provided. Doctors' salaries will therefore reflect what society thinks they are worth (revealed through the electoral process). Given that it takes many years to train someone to be a doctor, an urgent actual or perceived need to fill vacancies might also require recruiting from abroad, which probably will require attractive financial packages. This might still turn out to be "cheap" though because society can try to free-ride on the training cost incurred in another country. This makes the financial package offered to doctors difficult to compare to those offered to "high flyers" in the private sector, e.g. bank managers. One should also not forget that doctors generally have substantially more formal training than most other professionals.

The same argument applies to teachers. They provide a service, which is generally financed and provided by the public sector, and play a pivotal role in society: educating children. As such can the financial package offered to these professionals be compared to those on offer to "middle flyers" in the private sector?

It appears that a more relevant "like for like" comparison would be based on professions and occupations that exist in the public and private sectors. This could be IT professionals, engineers, lawyers, finance directors, service delivery managers or administrative staff.

54. This inability to attract and retain staff has measurable implications for the quality of public services provided. Emma Hall *et al.*, for example, show that hospital performance suffers in areas with stronger labour markets across England due to an inability to recruit, retain and motivate high quality staff. Hall *et al.* argue that the rather homogenous pay structure for medical staff in English acute hospitals has the unintended consequence of leading to higher death rates in hospitals based in areas with strong labour markets. Hall *et al.* conclude that this is partly due to the fact that hospitals in high outside wage areas rely more heavily on temporary "agency staff" as they are unable to raise (regulated) wages in order to attract permanent employees.²³

22. *Spatial wage variation and its impact on public sector recruitment and retention: the case of the NHS*, Ada Ma, Robert F. Elliott, Matt Sutton, Diane Skåtun, Alex McConnachie, Stephen Morris and Nigel Rice.

23. *Can Pay Regulation Kill? Panel Data Evidence on the Effect of Labor Markets on Hospital Performance*, Emma Hall, Carol Propper and John Van Reenen, CEP Discussion Study No 843, January 2008.

55. More generally, Bell *et al.*²⁴ argue that “...in high-cost low-amenity areas, such as the south-east of England, the public sector underpays relative to the private sector, therefore creating problems in recruitment to and provision of public services. Public sector labour markets are around 40 per cent as responsive to area differences in amenities and costs as are private sector labour markets...Reform of public sector pay structures is likely to be costly, and so other non-pay policies need to be considered to increase the attractiveness of public sector jobs.”

vi. Implications for pensions and public sector pension reforms

Pensions are deferred pay...

56. It is not the purpose of this study to define in absolute terms what a “generous” pension might be. Instead it wants to add to the debate on whether public sector pensions are relatively generous vis-à-vis their private sector counterparts. The key to making this judgement is to acknowledge that pensions are deferred pay and as a result any judgement ought to be made against the backdrop of public and private sector pay differentials. In other words, the total pay reward should be considered.

...whose degree of generosity will vary across occupations, gender and location...

57. In previous sections it was argued that public and private sector median pay could not be used to establish whether pay was more generous in one sector than in the other. Such a comparison can only be made once individual characteristics such as occupation (a proxy for education) or location are taken into account.
58. The study showed that relative pay between the public and private sectors varied *inter alia* across occupations and across regions. Regarding the former, it appears that public sector workers further down the income distribution do relatively well (or at least not worse) compared with their private sector counterparts. The further up the relative income distribution, the wider the gap between public sector and private sector pay. At the very top of their respective sectors, permanent secretaries in central government earn only a fraction of what senior managers earn in the private sector.
59. It has been suggested that any potential public sector pay premium and the lower variance of public sector pay relative to that in the private sector could be due to a higher level of unionisation in the public sector.²⁵ This explanation appears plausible for the pay setting of a large part of the public sector but less so for the upper echelon.
60. This suggests that the compensatory role of “generous” pensions (if indeed they exist) will be the more pronounced the higher the seniority in the public sector. Singling out “high flying” public sector workers as benefiting disproportionately from existing public sector pension arrangements therefore seems misguided.

24. *The Pattern and Evolution of Geographical Wage Differentials in the Public and Private Sectors in Great Britain*, David N.F. Bell, Robert F. Elliott, Ada Ma, Anthony Scott and Elisabeth Roberts, Manchester School Volume 75, No. 4, pp. 386-421, 2007.

25. *Devolution and Pay-Setting: The UK Experience*, David Bell, 2005.

61. The regional dimension adds another layer of complexity, which has been well analysed and documented in the economic literature. Relatively high vacancy rates in the education and health sectors in high cost and/or low amenity areas for example suggest that public sector pay is not perceived to be competitive in these areas. As Bell *et al.* point out addressing this is likely to be costly and the public sector might consider non-pay policies to make their jobs more attractive.
62. A relatively generous public sector pension could play this compensatory role but it is either not generous enough or the beneficiaries do not fully realise how generous it really is. In the latter case public sector employers could step up their efforts to make clear how generous their pension benefits are. A third possibility is that public sector employees might fully appreciate the true value of their public sector pension but that this is deemed to be of little use when living in a high-cost area such as London or the South East, where today's bills need to be paid today. This could particularly be the case during a housing boom when public sector workers will struggle to compete with private sector workers in the housing market. Mortgage lenders base their mortgage offers on multiples of annual pay while ignoring the generosity of any pension arrangement.²⁶ As such even a generous pension cannot fully compensate for lower earnings.
63. The above rationale will not only apply to teachers and medical staff in the south-east of England but probably also to public sector workers more generally higher up the income distribution.
64. One final observation: it is in fact possible that public sector employees realise the full value of the promised pension but that they discount it significantly due to the fact that they will be entitled to it only in the long term. Many things can happen over the coming years and decades, and even though the government is promising a pension to its employees, there is also the possibility that a future government might renege at least partly on this promise. While it is not likely, it is at least conceivable that a future government faced with very major budgetary challenges or under political pressure might decide to cut public sector pension entitlements.²⁷ While this would be highly unpopular, a future government might consider this to be the lesser evil compared to a default on internationally-held debt. In other words, even in real terms a pound today for certain is worth more than a promised pound in the future.
65. The above suggests that as long as public sector workers perceive some value in their pensions, a "one-size fits all" public sector pension reform leading to relatively less generous pension entitlements is likely to have an adverse effect on the public sector's ability to provide a similar quality of public services across the UK. This would be particularly the case in low amenity and/or high cost areas. More highly qualified public sector workers including civil servants would also be disproportionately affected.

...so that the effects of a "one-size fits all policy reform" could vary across different parts of the labour market

26. In other words, public sector workers with the same total lifetime pay reward as private sector workers might face a different time profile of their credit constraint in the sense that they cannot borrow in the same way against their future expected pension entitlement as they could against today's income.

27. This would not necessarily have to be a cut across the board. For example, a future government could renege partly on its promises by introducing a cap on benefits it is willing to pay.

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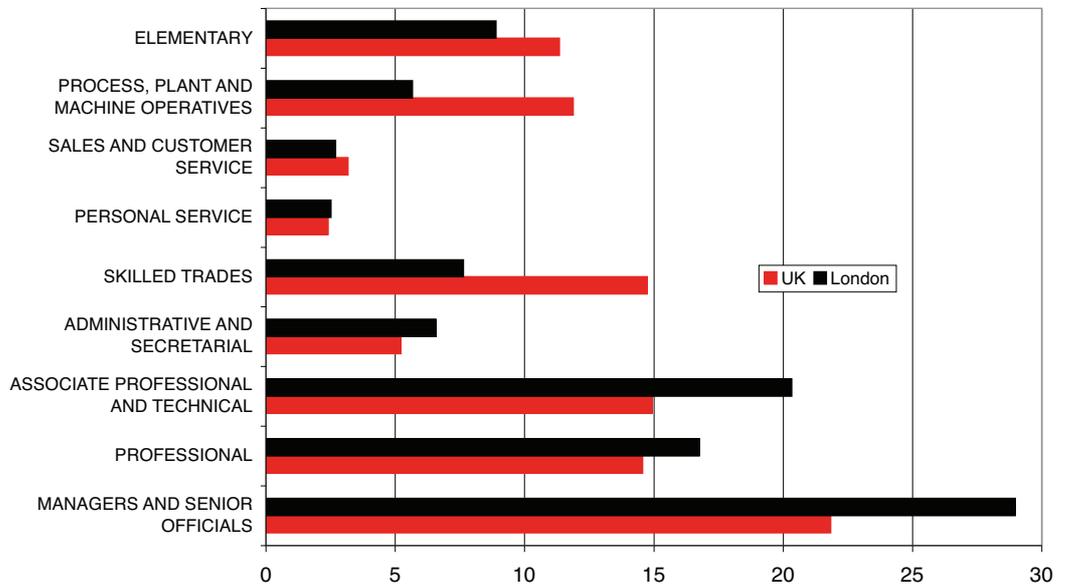
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Annex A: Composition of workforce by occupation UK versus London

Full-time males, per cent of total



Source: ONS ASHE 2008.

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