

Public sector redundancies: potential impact on the South East

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Research & Economics Team
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Key messages

- This paper assesses the potential effects of public sector cuts on the South East economy, using the economic forecast by the Office for Budget Responsibility from June 2010 as a starting point.
- Using a wide definition of the public sector to allow for comparisons across the country, we can see that one in four people across the South East are employed in the public administration, education and health sectors. While the share of employment in these sectors is on average slightly lower than the national average, some districts have among the highest shares in the country.
- Of the 10 districts with the highest shares working in these sectors in Great Britain, 3 are in the South East. These are Oxford, with 46% of the workforce in these sectors (largely due to the presence of educational establishments), Hastings with 43% and Canterbury with 41%.
- Of the 50 districts with the highest shares working in these sectors in Great Britain, 9 are in the South East, of which 7 are located along the coast reflecting a general trend of higher public sector employment in coastal areas. Some of the worst affected local authorities are likely to be in these coastal areas of Kent, East Sussex and Hampshire.
- In this paper we use a narrower definition of the public sector, based on the most accurate data from the Office for National Statistics. This shows that an estimated 630,000 people (15% of the workforce) are employed in the public sector in the South East, rising to around 20% in parts of Kent, East Sussex and Hampshire.
- Based on the OBR forecast, it is estimated that we could see 74,000 public sector job losses in the South East between now and the end of the 2015/16 financial year. This translates to slightly under 2% of the workforce losing their jobs, rising to around 3% in the most affected areas.
- We are likely to see a number of private sector job losses as an indirect effect of public sector cuts. This could push total job losses in the South East above 100,000. If this were to be the case, the cumulative loss of GVA in the South East over the 2010-2015/16 period as a share of total GVA would be 6.3% (over £10bn, measured in 2005 prices). Some areas of the South East could see cumulative losses of over 10%.
- Additionally, as this analysis is based on workplace rather than residence data, the effect on the South East economy as a whole will be greater as over 400,000 people commute into work in London. While the proportion of this number working in the public sector is unclear, the effect from redundancies will undoubtedly be significant.
- In absolute terms, Kent and Hampshire are likely to be most affected by public sector job losses, though large urban areas throughout the South East may see significant numbers of losses as they are often home to universities, colleges and local council offices. Broadly speaking, Kent, Hampshire, East Sussex and Oxfordshire are all more exposed to public sector cuts, with other counties better placed.
- The estimates in this paper do not take account of the composition of public sector employment in different locations, but makes the assumption that areas with the largest number or share of public sector workers will see the greatest impacts. In reality, cuts will fall differentially across sub-sectors within public services, and will often be uneven in their effects on localities. At present it is not possible to predict this differential impact accurately.

- Many of the areas which are likely to be hit relatively hard by public sector job losses are also, by extension, the areas where the private sector is smaller. These are mostly the coastal areas – where unemployment rates tend to be higher than in other parts of the Inner South East and employment growth is expected to be more subdued.
- In some ways, these coastal areas bear more similarities in structure to areas which are generally understood to be most at risk, such as parts of northern England, than they do to the inner South East.
- It is this combination of high potential exposure to public sector cuts, high unemployment and low forecasted private sector employment growth that makes areas of Kent, East Sussex and Hampshire a particular concern. Many districts in the South East particularly vulnerable to public sector cuts are those that may be the least well-placed to cope with them.

Introduction

The longest and deepest recession since the Second World War has had a severe impact on public finances in the UK. In recent months the political environment has been dominated by debate over how to cut spending and rein in the large budget deficit, culminating in June's Budget which set out plans to turn the current structural deficit into a surplus over the term of the parliament.

77% of the reductions in the Budget are anticipated to come from spending reductions and in order to achieve this, the government plans average real spending cuts of 25% on government departments over the duration of this parliament. With staff costs constituting a significant proportion of public sector budgets, we are now set to see major job cuts over the next few years.

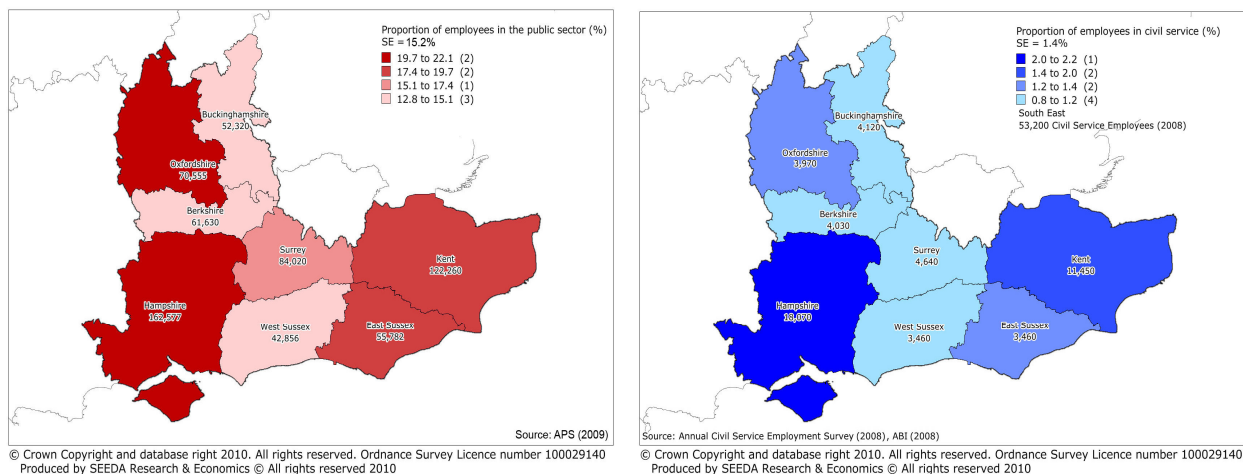
This paper examines the potential effects of these cuts on the South East economy, using data on public sector employment at the local level to determine which areas of the South East are most exposed to employment losses and reductions in output. The starting point for the paper is the Budget forecast produced by the Office for Budget Responsibility (OBR), which anticipates a 12% reduction in the public sector workforce over the next 6 years.

We use two datasets for calculating public sector employment. The first, and more accurate, is based on Office for National Statistics (ONS) Annual Population Survey data. This forms the basis of the model used to forecast sub-regional effects in the South East. However, at present we only have this data for the South East, so to compare public sector employment across the UK we use data from the ONS Annual Business Inquiry, which gives a higher percentage of public sector employment. The difference between these two sources should be kept in mind. See the Annex for further discussion of this and why the APS data is preferable.

Public sector employment in the South East

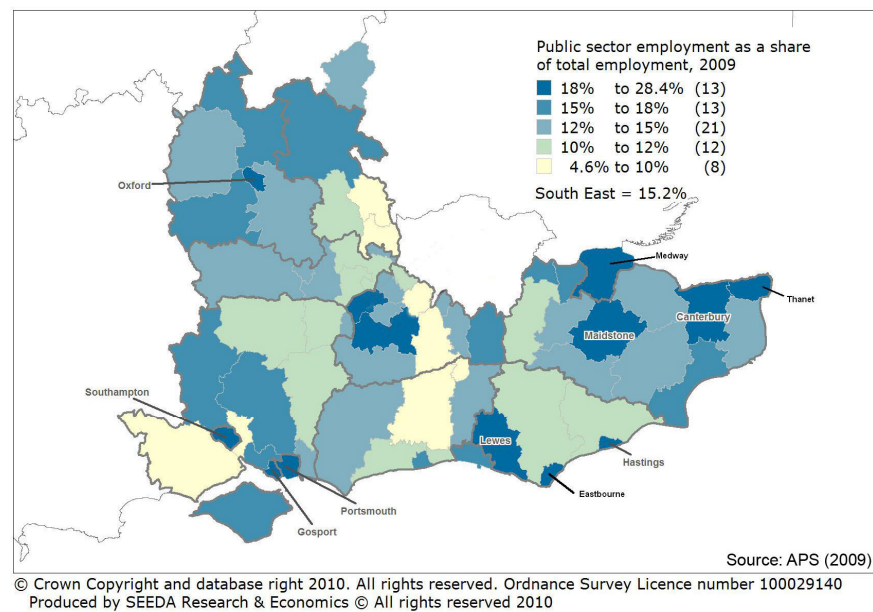
Around 630,000 people are employed in the public sector in the South East, around 15% of the workforce.¹ However, the share of public sector employment varies across the region (see Figure 1). With the occasional exception such as Oxford (which has one of the largest shares of public sector workers in the country, largely due to academia-related positions), **public sector jobs generally account for a larger share of total employment in southern and eastern parts of the region, particularly along the coast of East Sussex, Kent and parts of Hampshire.**

Figure 1: Proportion of workforce in public sector and civil service employment



¹ To follow OBR methodology, this figure includes those working for central or local government, but excludes those working for nationalised banks and other public corporations. If these are included, the figure rises to 694,000 (ONS Public Sector Employment, Q1 2010).

Figure 2: Public sector employment as share of total employment (district level), 2009



As well as having high shares of public sector workers compared to the rest of the South East, some of these districts have among the highest shares nationally (see Figure 3). The 3 major public sector categories are public administration, education and health – we can see that of the 50 districts nationally with the highest proportions of workers in these sectors, 9 are in the South East. With the exception of Oxford and Winchester, all of these districts are along the coast of the South East.

Figure 3: Share of national workforce in public administration, education and health

	Share of workforce in public administration, education and health	Rank out of 380 districts in Great Britain
Oxford, Oxfordshire	46%	#1
Hastings, E Sussex	43%	#7
Canterbury, Kent	41%	#9
Eastbourne, E Sussex	38%	#20
Worthing, W Sussex	37%	#31
Thanet, Kent	35%	#41
Lewes, E Sussex	35%	#43
Gosport, Hants	35%	#47
Winchester, Hants	35%	#50
Southeast average	25%	-
GB average	27%	-

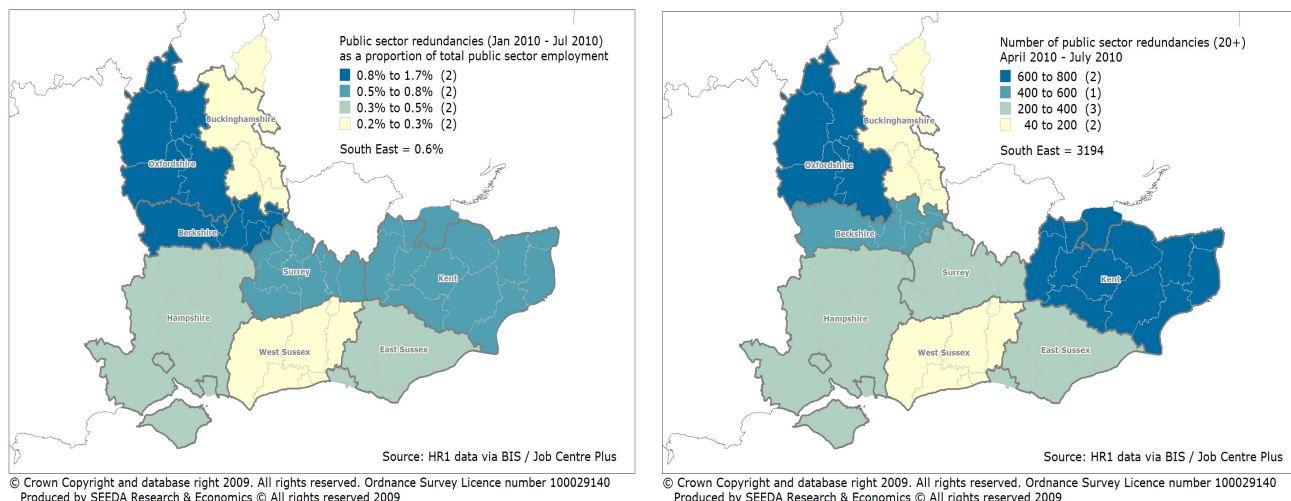
Source: ABI 2008² (workplace-based employment)

² NB Figures 1 and 2 are based on the Annual Population Survey (APS), which represents the most accurate estimates available for public sector employment at district level in the South East. Figure 3 uses the Annual Business Inquiry (ABI) to allow for an easy comparison of districts across the UK, but will overestimate public sector employment as some private firms will be included in the totals. The model used in this paper uses the APS dataset as a base – see annex for further discussion on why this is preferable.

Recent public sector job losses

Between January and July 2010, there were 5,600 public sector redundancies in the South East notified to the Department for Business, Innovation and Skills (not including redundancies of fewer than 20 staff). Over a quarter of these were in Oxfordshire, though Berkshire also saw significant cuts. Since April, Kent has made up an increased share of notifications, accounting for around a quarter of the total.

Figure 4: Public sector redundancies, Jan-Jul 2010 and Apr-Jul 2010



Potential public sector job losses and spatial impacts

In its Budget forecast, the OBR anticipates that around 610,000 public sector jobs may be lost in the UK over the next 6 years, with the majority of cuts (77%) coming in the 2013-16 period. This paper assumes that the South East will see cuts in line with the proportion of UK public sector workers working in the South East (11%, equivalent to around 74,000 staff).

Figure 5: OBR forecast and SEEDA estimates for the South East

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Total change
UK Public sector employment growth	-0.10%	-1.20%	-1.30%	-3.00%	-3.70%	-2.40%	-11.70%
UK Public sector employment level (end of financial year)	5,530,000	5,470,000	5,390,000	5,230,000	5,040,000	4,920,000	-610,000
South East public sector employment level (SEEDA calculations based on OBR forecast)	630,000	620,000	610,000	600,000	570,000	560,000	-74,000

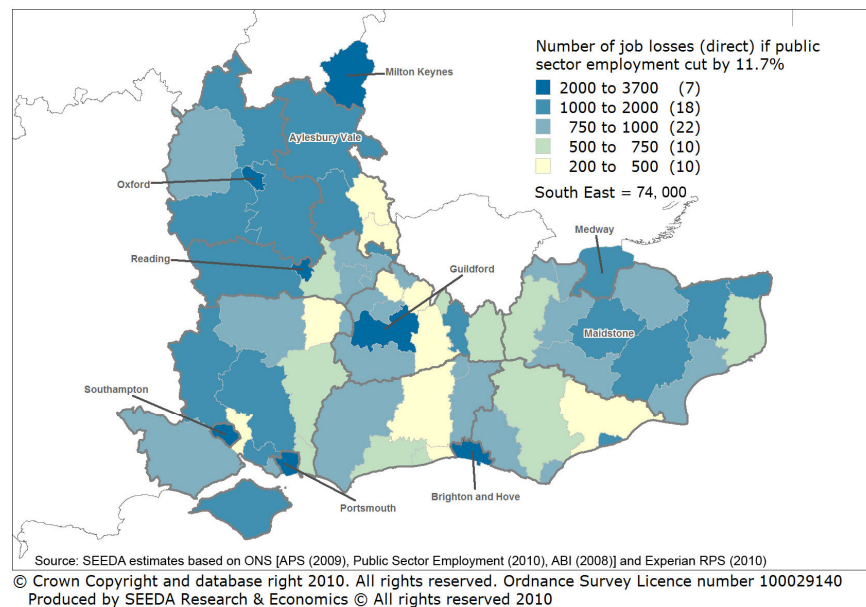
Source: OBR Budget forecast, June 2010, ONS Public Sector Employment Q1 2010

We present a central scenario based around the forecasted 12% decline in public sector, estimating the effects on employment and GVA in the South East as a whole, and at the sub-regional level.

It was announced in the Budget that NHS funding has been ringfenced, so to incorporate this into our analysis we apply a weighting factor to each district to reflect its exposure to the non-NHS public sector. Further details on the methodology are given in the Annex.

The map below highlights the local authorities which could see the greatest employment effects, in terms of absolute numbers of employees.

Figure 6: Number of job losses (direct) if public sector employment cut by 12%, 2010-2015/16



It is not surprising that the places likely to be affected most (in absolute terms) by any public sector job cuts tend to be larger urban areas, such as Oxford, Milton Keynes, Reading, Guildford, Portsmouth, Southampton and Brighton. These places have a greater concentration of employment in absolute terms, and many are home to universities, colleges and local council offices, which are major local employers.

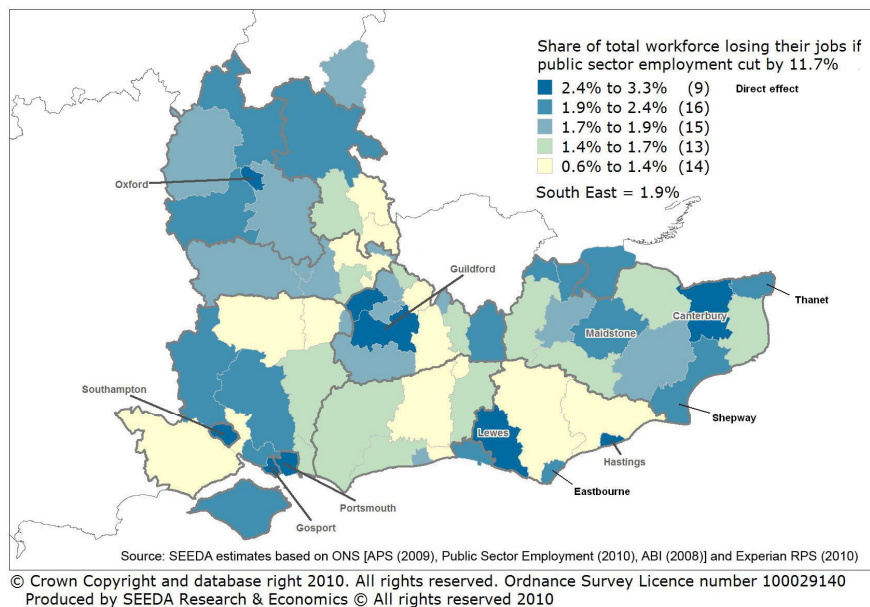
However, when we look at the share of the total workforce that could be affected by public sector job cuts (Figure 7), the worst affected local authorities are likely to include several coastal districts such as Hastings, Eastbourne, Canterbury, Portsmouth and Southampton. **Of the 16 potentially most affected districts in the South East in terms of the share of the total workforce losing their jobs, 13 are in Kent, East Sussex or South Hampshire.**

What is of particular concern is that coastal areas which are likely to be hit relatively hard by public sector job losses are also the areas where there are likely to be fewer alternative job opportunities in the private sector for people who find themselves out of work, as the private sector is smaller.

Secondly, districts that will be affected are far from identical. If we consider again the 16 potentially most affected districts, an average of 58% of public sector workers in the districts not in Kent, East Sussex or Hampshire (i.e. Oxford, Guildford and Surrey Heath) hold NVQ 4 level qualifications or higher; the average for the other 13 mostly coastal districts is 49% (data from the Annual Population Survey 2009). Given the recognised relationship between occupational skill and labour mobility³, it seems likely that workers made redundant in Oxford or Guildford may be more likely to move in order to find work. It could therefore be the case that public sector job losses in coastal areas could lead to more lasting effects on the local economy than job losses in the inner South East.

³ See for example: Robert J.R. Elliott and Joanne K. Lindley, "Skill Specificity and Labour Mobility: Occupational and Sectoral Dimensions" *Manchester School* 74.3 (2006): 389-413

Figure 7: Share of total workforce losing their jobs if public sector employment cut by 12% (direct effect), 2010-2015/16



The table below presents county-level estimates of the direct effects of the forecast 12% reduction in public sector employment. Also presented for information are two better/worse scenarios, also still based around the OBR assumptions on the share of reductions each year.

In general we can see that 12% cuts would lead to a 2% cut in the South East workforce, though with a significant degree of sub-regional variation. These results suggest that the majority of cuts will fall in Oxfordshire, East Sussex, Kent and Hampshire.

Figure 8: Potential job losses (direct) if public sector employment cut by 9%, 12% or 15% - county level

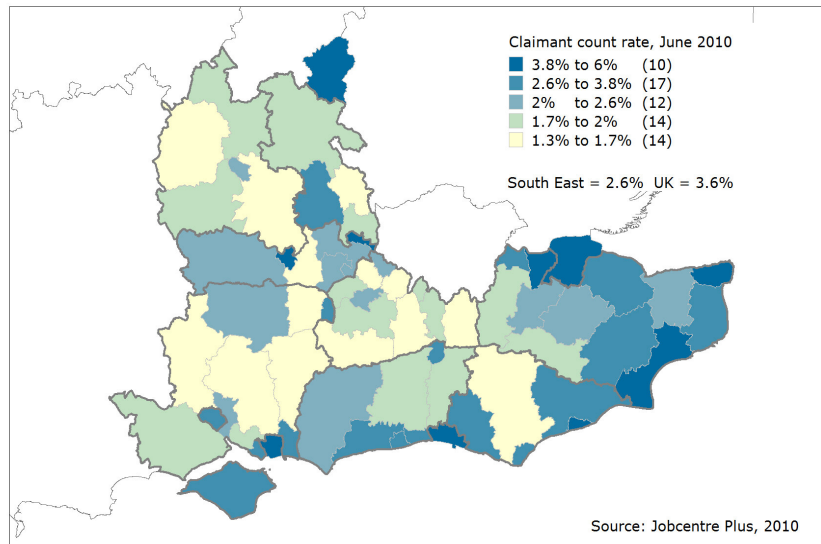
	9% cut		11.7% cut		15% cut	
	No. of job losses	Share of total workforce	No. of job losses	Share of total workforce	No. of job losses	Share of total workforce
Oxfordshire	6,200	1.9%	8,100	2.5%	10300	3.2%
East Sussex	5,100	1.8%	6,700	2.3%	8600	3.0%
Kent	10,800	1.7%	14,100	2.2%	18000	2.8%
Hampshire	13,500	1.7%	17,500	2.1%	22500	2.7%
Surrey	7,100	1.4%	9,300	1.8%	11900	2.3%
Buckinghamshire	4,400	1.3%	5,800	1.7%	7400	2.1%
Berkshire	5,800	1.2%	7,500	1.6%	9600	2.1%
West Sussex	3,300	1.0%	4,400	1.3%	5600	1.7%
South East	56,000	1.5%	74,000	2.0%	94,000	2.5%

Source: SEEDA calculations based on ONS [APS (2009), Public Sector Employment (2010), ABI (2008)] and Experian Regional Planning Service (2010)

Looking at the claimant count rate across the South East, we can see that with the exception of Oxfordshire, there is some correlation between those districts forecast to be most affected and districts with high unemployment. This is particularly true in Kent and urban south Hampshire,

and Hastings and Eastbourne in East Sussex, suggesting that **large-scale public sector job cuts could have a disproportionate impact on some of the most deprived parts of the South East.**

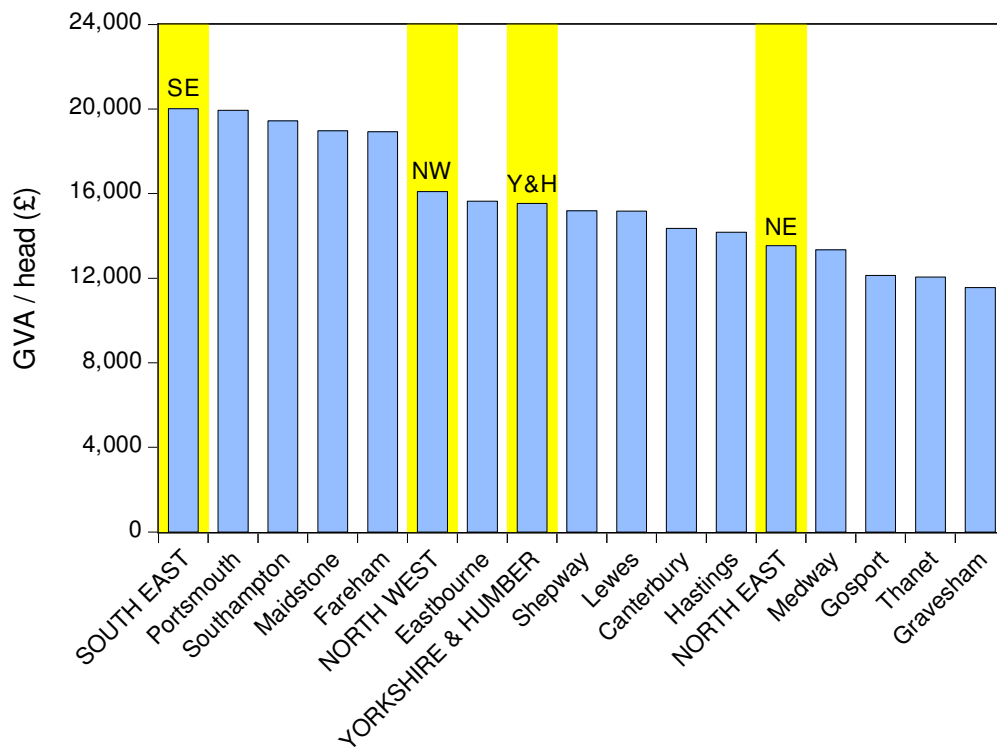
Figure 9: Unemployment rate (June 2010)



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Figure 10 shows the 13 out of 16 potentially most affected districts that are in Kent, East Sussex or South Hampshire. At least in terms of output per head, it is evident that many of these districts are closer to the average for regions in the North than they are to the South East.

Figure 10: GVA per head in 2008 – national comparison

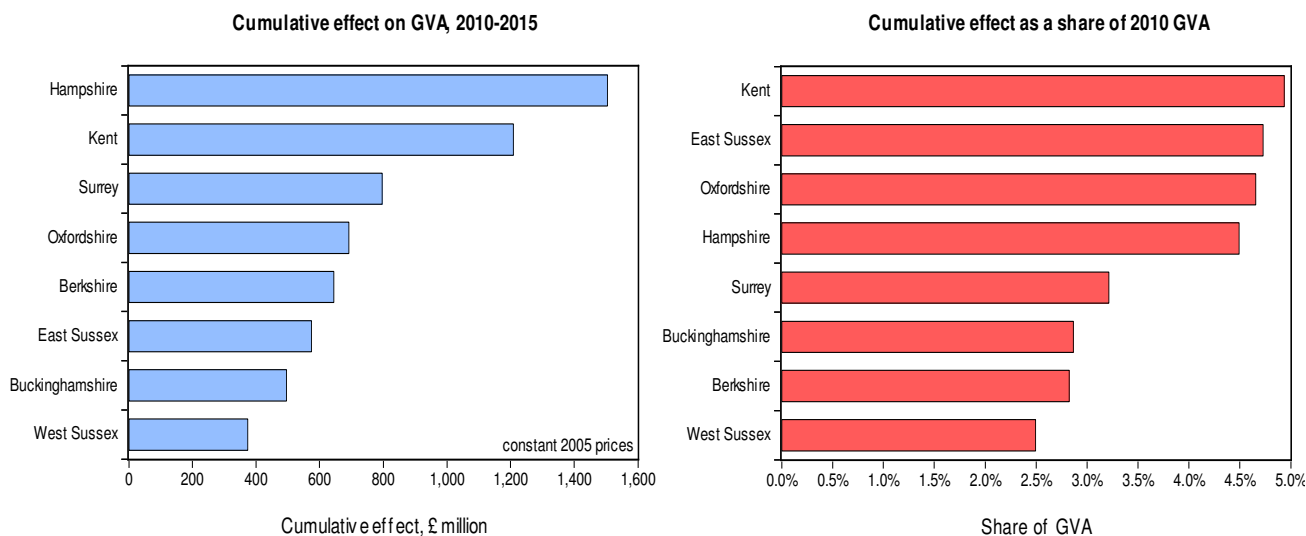


Source: Experian LMD/RPS, Spring 2010

Effects of public sector job losses on GVA – direct impact

Using figures on average productivity in the South East public sector enables us to estimate the potential impacts on GVA when public sector jobs are cut.⁴ The charts below show the counties where a reduction in GVA arising from public sector job losses would be greatest in absolute terms, and in terms of share of GVA.

Figure 11: Cumulative loss of GVA, 2010-2015



Source: SEEDA calculations based on ONS [APS (2009), Public Sector Employment (2010), ABI (2008)] and Experian Regional Planning Service (2010)

However, it is important to note that these figures represent the cost in GVA of the jobs cuts, but do not incorporate the positive effect on GVA of workers re-finding jobs. As such, these data should be understood to provide an estimate of the effect on GVA of public sector cuts alone – the final true figure would be lower when we take into account that many of those made redundant in the public sector will find private sector work. Due to the uncertainties involved we do not attempt to model this explicitly, but consider employment forecasts in the following section to give some indication of the extent to which this might occur.

The results largely mirror the pattern for employment impacts with, unsurprisingly, large urban areas seeing the greatest impact in absolute terms. Oxford, Southampton, Portsmouth, Milton Keynes and Brighton and Hove could all see reductions in GVA of over £200 million. At county level, it is evident that Hampshire and Kent will be affected most in absolute terms, though as this partly reflects county size it is perhaps more informative to consider this loss as a share of GVA. Here, it becomes apparent that counties in the South East can broadly be divided into 2 groups, with Kent, East Sussex, Oxfordshire and Hampshire bearing the brunt of cuts and Surrey, Buckinghamshire, Berkshire and West Sussex less exposed.

In total, the direct cumulative effect of public sector cuts in line with OBR forecasts on the South East economy would be slightly under £6.3 billion (in constant 2005 prices) over the entire 2010-2015/16 period, or 3.8% of 2010 GVA.

⁴ Productivity (or GVA per worker) in the South East public sector is estimated at £32,600 by Experian (though note that public sector productivity is difficult to calculate accurately). We can calculate how much GVA would be 'lost' in each local authority if public sector jobs were cut by particular amounts, by multiplying the number of job losses by the average GVA per worker.

Direct and indirect effects on employment and GVA

So far we have considered only the direct effect of public sector cuts, i.e. the number/effects of job losses in the public sector from public sector cuts; however, there will also be indirect effects through associated job losses in the private sector. These job losses will occur primarily from supply chain cuts and, for example, fewer consultants being employed, though reduced spending on local services by those made redundant in the public sector will have an induced effect on the private sector, particularly given that public sector workers are more likely than those in some other industries to live relatively close to their workplace (since skill levels in the public sector are on average lower than in the private sector).

In this section we present results for both the direct and indirect effects (again making no provision for private sector job replacement). For the choice of employment multiplier (i.e. the extent to which private sector job losses will occur as a result of public sector cuts), we refer to recent research undertaken for the Department of Business, Innovation and Skills by Cambridge Economic Associates (CEA) – this study was based on 280 national, regional and sub-regional evaluations of projects and programmes from across the country, and provides benchmark figures for additionality assumptions such as the choice of multiplier. This figure, based on average values used in these evaluations and recommended for use by BIS, is 1.45 – in this case, this would mean that for every 100 public sector job losses there would be 45 private sector redundancies. As there is a lack of evidence on the ‘true’ value of the employment multiplier (as opposed to the more general fiscal multiplier), we also present findings for a lower multiplier value, to examine effects if the indirect effect of cuts on the private sector is lower than this.

The same methods are applied to calculate cumulative GVA loss for the indirect cuts, but different productivity estimates are used for the public and private sector, and different assumptions made for productivity growth.⁵ The results for the South East as a whole are summarised below.

The key points to note are:

- With a 12% cut in public sector employment phased over 6 years as forecast by the OBR, the public sector could see 74,000 job losses, with an associated cumulative loss of GVA by the 2015/16 financial year of over £6 billion (constant 2005 prices) or 3.8% of GVA (compared to 2010 Experian forecast).
- In addition to this, the indirect effect of public sector cuts on the private sector could see another 33,000 job losses, with an extra associated cumulative loss of GVA by the 2015/16 financial year of over £4 billion (constant 2005 prices).
- Therefore, **the total number of job losses in both the public and private sectors across the South East could amount to over 100,000, with an associated cumulative loss of GVA by the 2015/16 financial year of over £10 billion (constant 2005 prices), or 6.3% of South East GVA.** Please note: this is the amount that could effectively be ‘taken out’ of the economy – it does not mean that GVA would drop by 6.3% as the rest of the economy would continue to expand, albeit at a slower pace.
- If the effect of public sector job losses on the private sector is lower than in our main assumption, at 1 private sector job loss per 5 public sector redundancies, a 12% cut could lead to 88,000 job losses, with an associated loss of GVA of £8.1 billion over the period (constant 2005 prices) or 4.9% of GVA.
- A more optimistic scenario still based around the OBR forecast but with lower overall cuts – 8% instead of 12% - suggests that there could be around 73,000 job losses in total, with an associated loss of GVA over the 2010-2015/16 period of over £7 billion (constant 2005 prices) or 4.3% of GVA.

⁵ See Annex for more information on the choice of assumptions. All productivity assumptions are based on Experian Regional Planning Service estimates from Spring 2010.

SCENARIO 1: 12% cuts in public sector employment with indirect effects, standard multiplier (1.45 - e.g. 100 public sector cuts = 45 private sector cuts)

Employment	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Cumulative 2010-2015/16
Direct	650	7,550	8,200	18,900	23,350	15,150	73,800
Indirect	300	3,400	3,700	8,500	10,500	6,800	33,200
Total	900	10,900	11,800	27,200	33,850	21,950	106,600
GVA (£, constant 2005 prices)	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Cumulative 2010-2015/16
Direct*	21,000,000	270,000,000	541,000,000	1,160,000,000	1,927,000,000	2,424,000,000	6,343,000,000
Indirect*	13,000,000	173,000,000	343,000,000	737,000,000	1,228,000,000	1,551,000,000	4,045,000,000
Total*	34,000,000	443,000,000	883,000,000	1,897,000,000	3,155,000,000	3,975,000,000	10,387,000,000
% GVA (2010)	0.0%	0.3%	0.5%	1.2%	1.9%	2.4%	6.3%

SCENARIO 2: 12% cuts in public sector employment with indirect effects, lower multiplier (1.2)

Employment	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Cumulative 2010-2015/16
Direct	650	7,550	8,200	18,900	23,350	15,150	73,800
Indirect	150	1,500	1,650	3,800	4,650	3,050	14,750
Total	750	9,000	9,750	22,500	28,000	18,150	88,200
GVA (£, constant 2005 prices)	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Cumulative 2010-2015/16
Direct*	21,000,000	270,000,000	541,000,000	1,160,000,000	1,927,000,000	2,424,000,000	6,343,000,000
Indirect*	6,000,000	77,000,000	152,000,000	327,000,000	546,000,000	689,000,000	1,798,000,000
Total*	26,000,000	347,000,000	693,000,000	1,488,000,000	2,473,000,000	3,113,000,000	8,140,000,000
% GVA (2010)	0.0%	0.2%	0.4%	0.9%	1.5%	1.9%	4.9%

SCENARIO 3: 9% employment cuts, standard multiplier (1.45)

Employment	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Cumulative 2010-2015/16
Direct	500	5,800	6,300	14,550	17,950	11,650	56,750
Indirect	200	2,600	2,850	6,550	8,100	5,250	25,550
Total	700	8,350	9,050	20,950	26,050	16,900	82,000
GVA (£, constant 2005 prices)	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Cumulative 2010-2015/16
Direct*	16,000,000	208,000,000	416,000,000	892,000,000	1,483,000,000	1,865,000,000	4,879,000,000
Indirect*	10,000,000	133,000,000	264,000,000	567,000,000	944,000,000	1,193,000,000	3,111,000,000
Total*	26,000,000	341,000,000	679,000,000	1,459,000,000	2,427,000,000	3,058,000,000	7,990,000,000
% GVA (2010)	0.0%	0.2%	0.4%	0.9%	1.5%	1.9%	4.8%

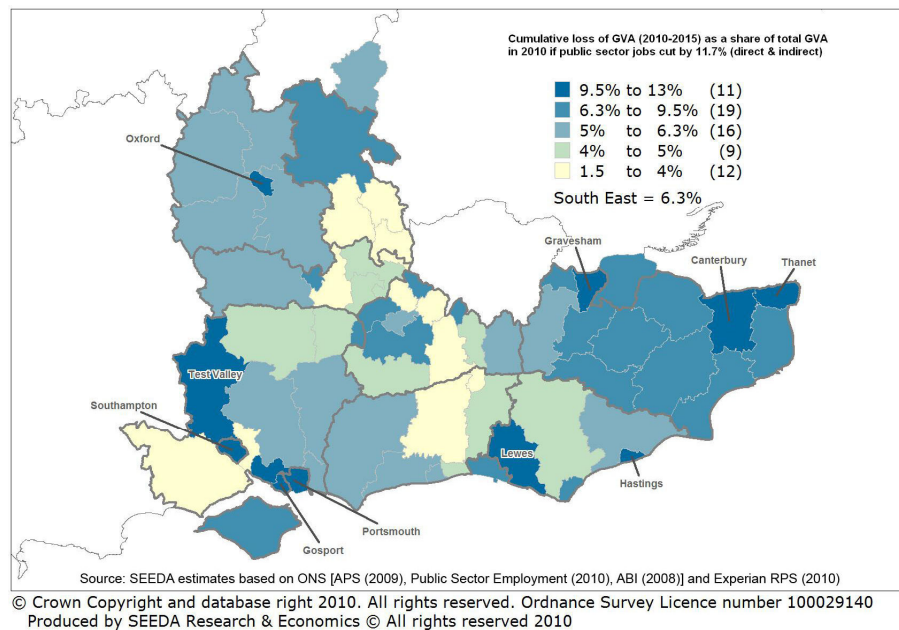
Source: SEEDA calculations based on ONS [APS (2009), Public Sector Employment (2010), ABI (2008)] and Experian Regional Planning Service (2010)

*includes impact of fewer people in employment from previous year(s)

NB All GVA estimates are expressed in 2005 prices – current prices are approximately 10% higher. In addition, these estimates are based on the output approach to calculating GVA. It is likely that estimates based on public expenditure data would result in an even greater impact on GVA.

The impact on GVA is likely to vary significantly across the region – see Figure 12, which shows what proportion of total GVA could be 'lost' over the 2010-2015/16 period if public sector jobs were cut by 12%. **Many of the worst-affected districts could see cumulative losses of GVA of over 10%.** Note that this map includes the impact of both direct and indirect job losses, but assumes no growth in private sector employment.

Figure 12: Cumulative loss of GVA (2010-2015/16) as a share of total GVA in 2010 if public sector jobs cut by 12%

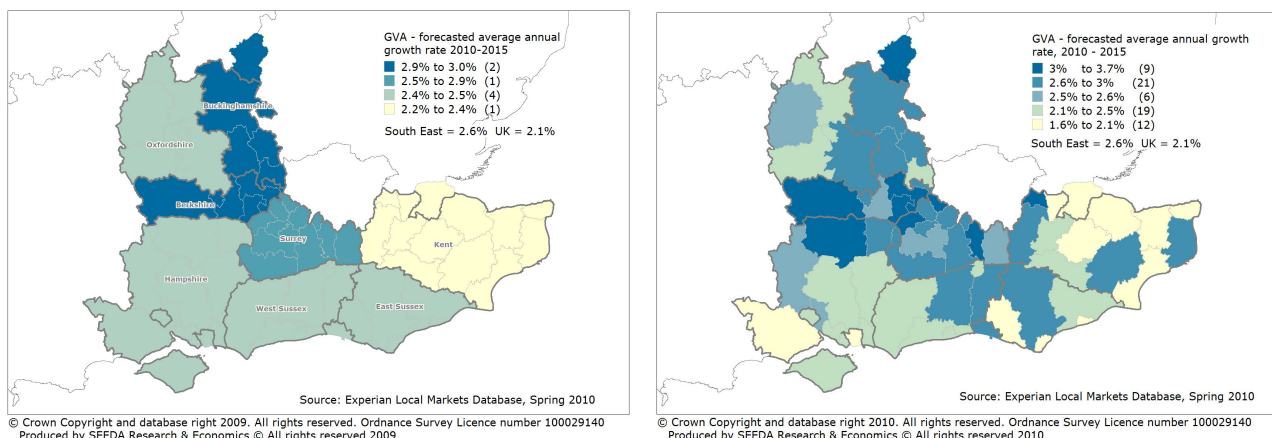


Once again it is clear that with the exception of Oxford, the worst affected areas in terms of loss of GVA are likely to be in Kent, East Sussex, and southern Hampshire.

Employment and GVA - forecasts

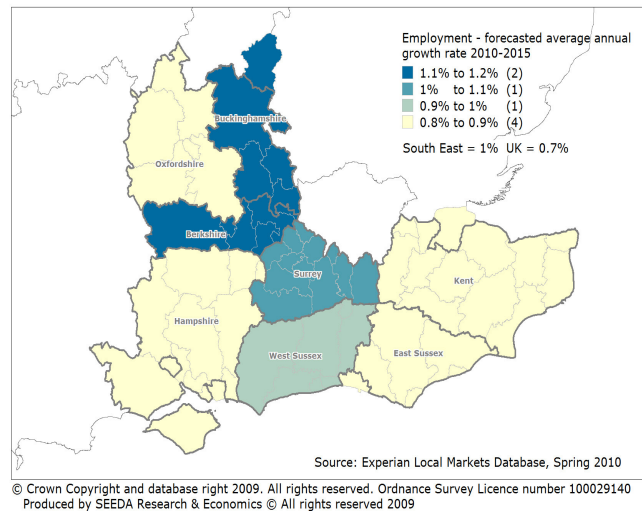
Forecasts from Experian indicate that GVA growth may be higher for the inner South East, and lower for those areas set to be hardest hit by public sector cuts.

Figure 13 – GVA forecasts by county and district



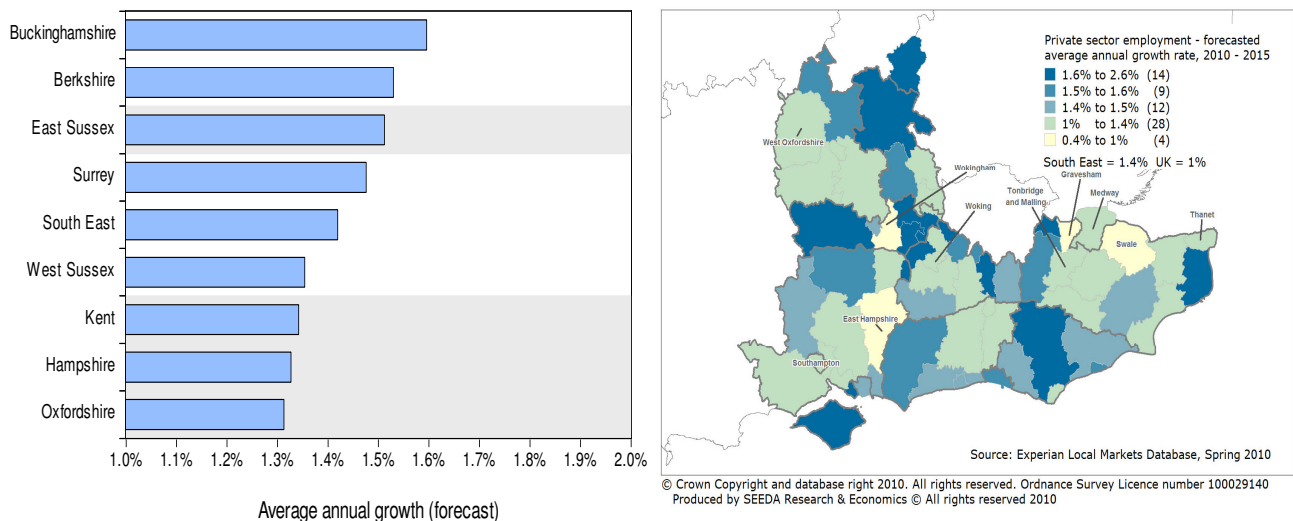
Total employment growth is also forecast to be generally more subdued in the areas which are set to be hardest hit by public sector redundancies (Figure 14).

Figure 14: Total employment, forecast for 2010-2015



However, as this includes the impact of public sector redundancies, it is preferable to consider only private sector employment forecasts as this will give some idea of the potential for new private sector jobs to mitigate the impact of public sector cuts.

Figure 15: Forecast average annual private sector growth, 2010-2015



Source: Experian Local Markets Database, Spring 2010

Figure 15 shows that private sector job growth is forecast to be lowest in Kent, Hampshire and Oxfordshire, some of the counties set to be worst affected. Only East Sussex is forecast to see faster than average private sector employment growth. However, forecasts by sector at sub-regional level are relatively volatile and subject to error, so should not be relied on to present an accurate picture, more a general impression.

Finally, Figure 16 presents data for the 16 districts forecast to be most affected by our model, alongside information on unemployment and private sector employment forecasts. Here, 'high' corresponds to being in the top third of districts in the South East, 'medium' to the middle third and 'low' to the bottom third. As such, the worst combination would be a high share of the workforce affected, high unemployment and low private sector growth forecasts. The results show that a number of districts have this combination, while half of the 16 are among the districts with the highest claimant count unemployment rates in the South East, and only one district currently has 'low' unemployment. This suggests that **many districts in the South East that are set to be badly affected by public sector cuts may be the least well-placed to cope with them.**

Figure 16: Share of workforce affected, unemployment levels and employment forecasts

District	County	Forecast share of workforce affected 2010-2015	Unemployment (claimant count), June 2010	Private sector employment forecast 2010-2015*
Thanet	Kent	high	high	low
Eastbourne	E Sussex	high	high	low
Hastings	E Sussex	high	high	low
Shepway	Kent	high	high	low
Medway	Kent	high	high	low
Gravesham	Kent	high	high	low
Southampton	Hampshire	high	high	medium
Portsmouth	Hampshire	high	high	high
Canterbury	Kent	high	medium	low
Maidstone	Kent	high	medium	low
Oxford	Oxfordshire	high	medium	medium
Guildford	Surrey	high	medium	medium
Lewes	E Sussex	high	medium	high
Gosport	Hampshire	high	medium	high
Surrey Heath	Surrey	high	medium	high
Fareham	Hampshire	high	low	high

*Private sector employment forecast is an average of Experian and Cambridge Econometrics forecasts

Source: SEEDA calculations based on ONS [APS (2009), Public Sector Employment (2010), ABI (2008)], Experian Regional Planning Service (2010), Cambridge Econometrics (2010), Jobcentre Plus (2010)

NB forecasts by sector at district level have significant margins of error

Annex – Methodology and assumptions

1. Choice of dataset

The Office for National Statistics provides estimates of the number of people employed in different industries through the Annual Business Inquiry; however it is not possible to get an estimate of the number of people employed in the public sector from the same source. Whilst the majority of public sector employment is covered by public administration, education and health, substantial pockets of public sector employment exist in other industrial sectors and large numbers of those employed in education and health are part of the private sector.

Until recently the Labour Force Survey was used in the estimation of regional public sector employment; however since 2010 a more direct methodology has been in place. To produce estimates of public sector employment at local authority level we have followed the methodology previously used at the regional level, albeit using the Annual Population Survey rather than the Labour Force Survey.

Both the LFS and APS ask respondents about their employers, whether they work for a private firm or business or some other kind of 'non-private' organisation; a further question establish what type of non-private organisation they worked for (such as central government/local government/charities). Using this, along with information on the respondents employment status (e.g. by definition the self-employed cannot be employed by the public sector) it is possible to provide estimates of the number of people employed by the public sector. Finally, local authority estimates are constrained to the total figure for the South East given in the ONS publication Public Sector Employment (2010).

2. Direct impact (Public sector employment)

Number of public sector employees (ONS public sector employment Q1 2010): 694,000
Minus public corporations (to follow OBR methodology): 631,000
(Public corporations figure calculated from national proportions: 9.1%)

Weighting factor applied to reflect ringfenced health budget – NB does not assume no redundancies in the health sector, just proportionately fewer.
Source: ABI 2008 – proportion of those in 'health' sector
e.g. South East average = weighting factor 1.00
10% higher health employment = weighting factor 0.90

3. Labour productivity:

Public sector (average) - £32,600 (constant 2005 prices)
Private sector (average) - £45,700 (constant 2005 prices)

Source: Experian, RPS Spring 2010

4. Productivity growth:

	2010	2011	2012	2013	2014	2015
Public Sector	1.00	1.011	1.012	1.008	1.008	1.008
Private Sector	1.00	1.027	1.016	1.014	1.017	1.022

Source: Experian, RPS Spring 2010

5. Job losses spread over time:

OBR forecast – see Fig. 5

6. Indirect multiplier:

1.45 (data also presented for 1.2 on p.9)

e.g. for every 100 jobs lost in public sector 45 jobs are lost in private sector

Guidance on the choice of multiplier was taken from:

BIS (2009) RDA Evaluation: Practical Guidance on Implementing the Impact Evaluation Framework.

BIS (2010) Guidance for RDAs on Using Additionality Benchmarks in Appraisals, forthcoming.

7. Induced multiplier:

We have not directly incorporated induced impacts

NB. induced impacts include the impact of household income and consumer expenditure on local/regional economies.

Note: some areas that have a relatively low proportion of employment in the public sector could be more exposed to a cut in employment due to a higher concentration of specific public sector jobs and/or a high concentration of certain private sector activities.