

Methodology Guide for the Area Cost Adjustment 2006/07 and 2007/08

	PAGE
ROLE OF THE AREA COST ADJUSTMENT	2
OVERALL STRUCTURE OF THE AREA COST ADJUSTMENT	2
THE LABOUR COST ADJUSTMENT	
General approach	2
Data on wage rates	3
The Annual Survey of Hours and Earnings	3
Calculating the Labour Cost Factor	3
Smoothing	4
Lower Limit	4
Share of labour costs in overall costs	8
THE RATES COST ADJUSTMENT	9
Calculating rateable values per square metre	9
Outside the Education block	9
Within the Education block	10
Share of business rates in overall costs	11
THE ISLES OF SCILLY	12
APPLICATION OF THE AREA COST ADJUSTMENT	12
ANNEXES	
A References	13
B Regression Coefficients for ACA Areas	14
C RCA Geography	16
D Map of LCA Geography	17

Area cost adjustment

Role of the area cost adjustment

1. The costs of providing comparable services differ between areas partly because of their differing characteristics (such as numbers of school children, or lengths of road) and partly because of differences in the costs of inputs which local authorities need to buy. The area cost adjustment (ACA) is intended to allow for the latter differences. Thus, if two authorities were identical, other than there being differences in the cost of labour and business rates in their areas, the only difference between their FSS would be that produced by the ACA.

Overall structure of the area cost adjustment

2. The ACA reflects two kinds of difference between areas in costs:
 - differences in **labour costs** (the 'Labour Cost Adjustment'); and
 - differences in **business rates** paid on local authority premises (the 'Rates Cost Adjustment')
3. The Labour Cost Adjustment is essentially based on the differences in wage costs between areas. The adjustment is applied to the proportion of the expenditure on each block of services which relates to staff. Differences in labour costs account for the great majority of the ACA.
4. The Rates Cost Adjustment is essentially based on the differences in rateable values per square metre between authorities in the seven RCA areas and those elsewhere in England; a slightly different approach is used for school buildings. The adjustment is applied to the proportion of the expenditure on each block of services which relates to business rates.

The Labour Cost Adjustment

General approach

5. The LCA is based on what is sometimes called a 'general labour market' approach. The underlying rationale is that local authorities have to compete for staff with other potential employers. Hence, in order to secure and retain various categories of staff of a given quality, they will need to pay the local 'going rate'. This is measured by comparing wage evidence in each ACA area.

Data on wage rates

THE ANNUAL SURVEY OF HOURS AND EARNINGS

6. The LCA draws its data on wage rates from the full Annual Survey of Hours and Earnings (ASHE). The ASHE has been developed by the Office for National Statistics to replace the New Earnings Survey (NES). Further details regarding this change can be found at reference 1.
7. The ASHE is a 1% sample of all employees in employment. It covers employees in all occupations, working in all types and sizes of business, in all industries. The ASHE is a comprehensive source of data on the relative levels of earnings in each region, sub-divided by occupation, which can be applied consistently to all areas and services. It therefore provides a robust and objective measure of the extent to which employers in some areas of the country, with whom local authorities are competing for staff, pay higher wages within any given occupation.
8. The ASHE also provides information on the gender, age and industry of each participant and on whether that participant is employed on a full or part time basis within the public or private sector.
9. In line with the recommendations of the Elliott Review², we have calculated labour cost adjustment factors for each English county area based on historic 1991 boundaries. There are, however, two refinements to Elliott's approach. Counties neighbouring London have been divided into fringe and non-fringe areas. The fringe areas are defined as those districts where teachers are eligible for London fringe payments. And Outer London has been divided into two in line with evidence suggesting there is variation in wages pressures across Greater London. The authorities within each of these ACA areas are detailed in the Appendix to Annex H of The Local Government Finance Report.

Calculating the Labour Cost Factors

10. The starting point for calculating LCA factors is the wage evidence for each area. For this purpose we use hourly wage excluding overtime. However, simply comparing average wages between areas does not make like for like comparisons. Average wages vary between areas for a number of reasons. In particular, there are differences in the structure of employment – some areas have a high proportion of people working in highly paid occupations such as banking and finance; others have a high proportion working in agriculture. These differences need to be taken into account if the underlying going rate for each area is to be correctly identified.
11. The way that this is achieved is through the use of regression analysis. A regression is run on hourly earnings excluding overtime payments against a set of variables including the area where each individual works, and factors we wish to control for. The control variables include age, gender, occupation and industry. The coefficients produced by this regression analysis are shown at Annex B. The coefficients on the area variables represent the relative wage in each area, after allowing for differences that are due to the control variable. Because the distribution of hourly earnings is skewed, it is usual in regression analysis of wages to use the log of earnings. So the first step in producing the LCA factors is to unlog these coefficients.

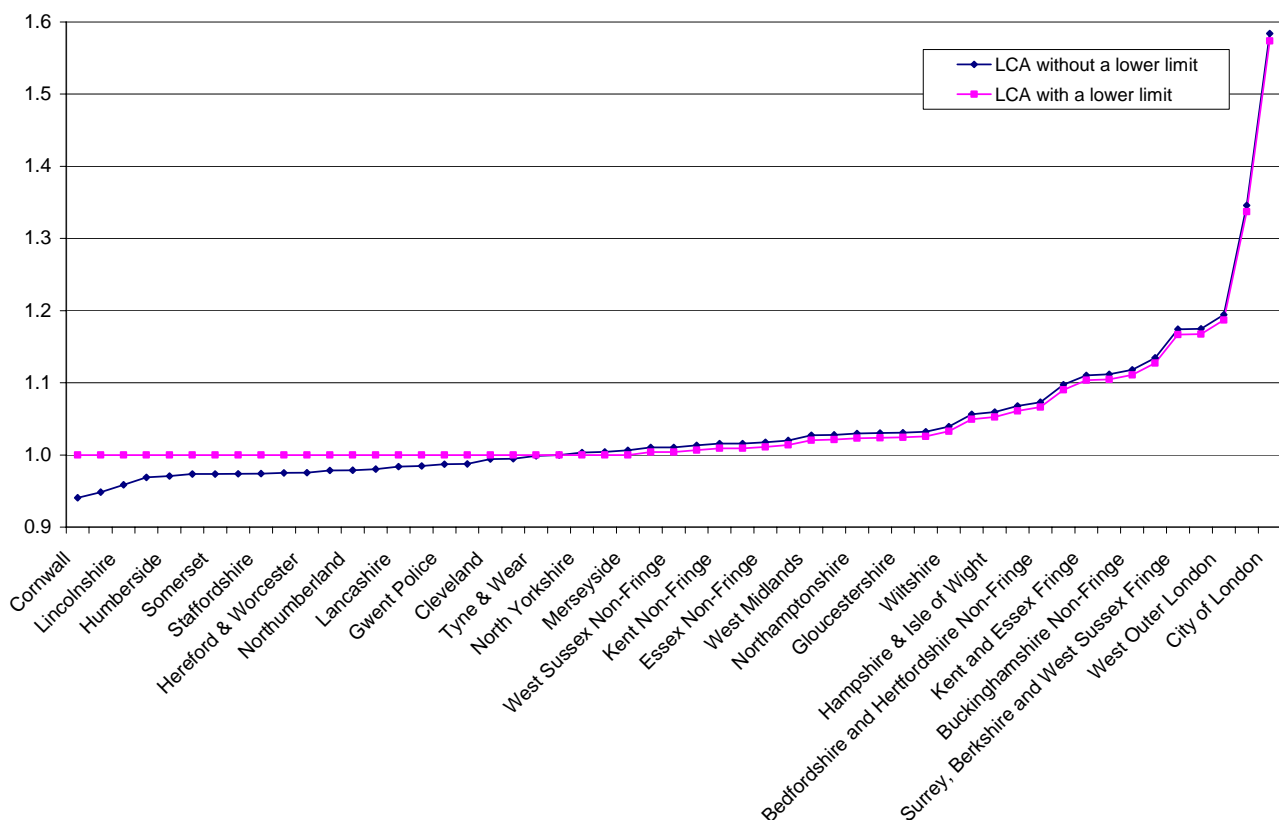
SMOOTHING

12. Secondly the LCA factors are smoothed to reduce year on year volatility in the ACA factors. The smoothing is performed simply by taking a three year average of each areas LCA factors. For 2006/07, ASHE data from 2002, 2003 and 2004 has been used to calculate the smoothed values.

LOWER LIMIT

13. A lower limit is then applied to the smoothed LCA factors calculated above. Occupations such as teachers, police and fire-fighters are on national pay scales, and they make up a higher proportion of local government employment than of the economy as a whole. The lower limit recognizes this lower wage flexibility in the public sector. The lower limit is set by judgment, aiming to strike a balance between the presence of national pay scales for teachers, police and fire fighters and the fact that authorities contract out services to the private sector particularly within EPCS and social services. All authorities below the threshold LCA value, have their LCA value raised to that of the threshold. Chart 1 below shows the action of the lower limit in 2006/07.

Chart 1: The LCA with and without a Lower Limit



14. In 2006/07 the lower limit has been set at Merseyside. The LCA values are re-indexed so that Merseyside has an LCA set equal to one. All authorities with LCA values lower than one then

have their LCA value raised to equal one. Table 1 below illustrates the calculation of the LCA for two ACA areas: The West Midlands whose LCA is above the lower limit and Somerset, which is below the lower limit.

Table 1 The LCA Calculation	West Midlands			Somerset		
	2002	2003	2004	2002	2003	2004
Regression Coefficients (from Annex B)	0.0408	0.0240	0.0151	-0.0157	-0.0296	-0.0356
Unlogged Coefficients	1.0416	1.0243	1.0152	0.9845	0.9708	0.9650
Three Year Average			1.0270			0.9734
Re-index so that Merseyside=1 (by dividing by Merseyside LCA of 1.006411829)			1.0205			0.9672
Apply Lower Limit?			No			Yes
Final LCA Value			1.0205			1.0000

The resulting LCA values for each ACA area are listed in table 2 below.

Table 2	LCA Factors
City of London	1.5737
Inner London	1.3370
West Outer London	1.1868
Berkshire Non-Fringe	1.1674
Surrey, Berkshire and West Sussex Fringe	1.1667
Hertfordshire and Buckinghamshire Fringe	1.1272
Buckinghamshire Non-Fringe	1.1109
Rest Outer London	1.1047
Kent and Essex Fringe	1.1033
Oxfordshire	1.0902
Bedfordshire and Hertfordshire Non-Fringe	1.0663
Cambridgeshire	1.0611
Hampshire & Isle of Wight	1.0526
Avon	1.0495
Wiltshire	1.0327
Warwickshire	1.0256
Gloucestershire	1.0244
Greater Manchester	1.0237
Northamptonshire	1.0231
Cheshire	1.0211
West Midlands	1.0205
East Sussex	1.0137
Essex Non-Fringe	1.0111
West Yorkshire	1.0092
Kent Non-Fringe	1.0091
Leicestershire	1.0067
West Sussex Non-Fringe	1.0040
South Wales Police	1.0039
Merseyside	1.0000
North Yorkshire	1.0000

Nottinghamshire	1.0000
Cleveland	1.0000
Suffolk	1.0000
Tyne & Wear	1.0000
South Yorkshire	1.0000
Dorset	1.0000
Gwent Police	1.0000
Derbyshire	1.0000
North Wales Police	1.0000
Lancashire	1.0000
Cumbria	1.0000
Hereford & Worcester	1.0000
Norfolk	1.0000
Somerset	1.0000
Devon	1.0000
Staffordshire	1.0000
Northumberland	1.0000
Durham	1.0000
Humberside	1.0000
Shropshire	1.0000
Lincolnshire	1.0000
Dyfed Powys Police	1.0000
Cornwall	1.0000

Share of labour costs in overall costs

15. Labour costs make up differing proportions of the overall costs of services. The relativities shown in Table 2 are the LCA factors which would apply to services on which expenditure was entirely related to staff costs. For most services, the LCA factor is abated, to reflect the proportion of costs which relate to staff.
16. The LCA is applied only to that proportion of the FSS for a service which is intended to cover employment costs (both direct and indirect). For each service block, an estimate was made of the proportion of total costs which are employment costs. These estimates were derived from information from the Base Estimate Returns (1992/93) which give a detailed analysis of local authorities' expenditure, including information on pay excluding London Weighting payments.
17. Since there are employment components in many of the items which fall within headings which are ostensibly non-employment costs, an allowance was made in order to derive a comprehensive estimate of the proportion of costs which relate, directly or indirectly, to levels of pay in the area. Eight non-employment costs were identified as having relatively large proportions of indirect labour costs:
- repair and maintenance to buildings;
 - payments to contractors, including Direct Service Organisations;
 - hired and contracted services;
 - repair and maintenance to vehicles;
 - payments to voluntary organisations;
 - police common services;
 - grants to other local authorities; and
 - 'other supplies and services'.
- It was assumed that 70% of expenditure on these items represents indirect payments to local labour (see *reference 3*).

18. The resulting estimated labour shares for each service block are as follows:

Education	80%
Personal Social Services	
Children and Younger Adults	75%
Older People	85%
Police	85%
Fire	85%
Highway Maintenance	65%
Environmental, Protective and Cultural Services'	65%

19. Using these percentages, LCA factors are calculated for each FSS service block, for each ACA class of local authority and sub-region. For example, the LCA factor for an inner London borough for Education would be:

$$1 + ((1.3370 - 1) * 80\%) = 1.2696$$

The Rates Cost Adjustment

20. The business or national non-domestic Rates Cost Adjustment (RCA) is based on a weighted average of the rateable value per square metre. Like the LCA, it applies to all ACA authorities. The main measure is the average rateable values per square metre in the City of London, inner London, outer London, London's fringe area, the rest of the south-east, the south east fringe and the northern ACA areas as a proportion of that in the rest of the country. In Education, the RCA is based on the valuation of schools.

Calculating Rateable Values Per Square Metre

OUTSIDE THE EDUCATION BLOCK

21. For FSS service blocks other than Education, the RCA is based on estimates of rateable values per square metre. The main sources of data used in this calculation are:
- the total floorspace in square metres and number of commercial offices, including crown properties. These are taken from *Commercial and Industrial Floorspace and Rateable Value Statistics 2004 (England and Wales)* (<http://www.odpm.gov.uk/index.asp?id=1146088>)
 - the total rateable value, and number of hereditaments, of commercial offices, including crown properties, at 1 August 2005. These are provided by the Inland Revenue.
22. Rateable values per square metre are estimated by firstly calculating average rateable values at 1 August 2005. This is done by dividing the total rateable values as at 1 August 2005 by the number of hereditaments relating to 1 August 2005. These average rateable values are then multiplied by the number of commercial offices at 1 April 2004 and divided by the total floorspace in square metres for commercial offices at 1 April 2004.
23. The rateable values per square metre are then adjusted to take into account the effect of transitional relief. Using data on the reductions in rate yields and gross rates, supplied by authorities to the Office of the Deputy Prime Minister on the National Non-Domestic Rates Provisional Contributions Return 2005/06, the ratio of net to gross yield is calculated, and multiplied by the rateable values per square metre.
24. Once rateable values per square metre have been calculated for each local authority district, population-weighted average rateable values per square metre are calculated for each RCA zone, using 2004 mid year population estimates. The RCA zones are the City of London, inner London, outer London, London's fringe area, the rest of the south-east, the south east fringe, the northern ACA area and the rest of England.
25. RCA relativities are calculated by dividing the weighted rateable value per square metre for each RCA zone by the weighted rateable value per square metre for the rest of England. For 2006/07, these weighted rateable values per square metre and business rate relativities for each RCA zone are shown in Table 3.

Table 3 Rateable Values per square metre for each RCA Zone		
RCA Zone	Weighted Rateable Value (£/Msq)	Ratio to "Rest of England & Wales"
City	294.5071	4.5005
Inner London	151.8241	2.3201
Outer London	113.3028	1.7314
London Fringe	132.7966	2.0293
Rest of the South East	90.4828	1.3827
South East Fringe	86.6180	1.3237
Northern Conurbation	82.6167	1.2625
Rest of England & Wales	65.4385	1.0000
England and Wales	88.9206	1.3588

26. These relativities are those which would be relevant if business rates accounted for 100% of expenditure. In order to calculate RCA factors for each service block (apart from education), these factors are adjusted by the shares of expenditure accounted for by business rates (as described in paragraph 29).

WITHIN THE EDUCATION BLOCK

27. For the education service block, the adjustment is based on the revised 2005 Revaluation of Local Authority Schools in England and Wales, undertaken by the Valuation Office Agency. The valuations are based on a combination of location and site factors which are shown in the report. The location factors measure differences in unit building costs throughout the country; the site factors take account of regional differences in land values, distinguishing between urban and rural sites. An overall factor is calculated by multiplying these factors together (using the urban site values) and then aggregating to area cost adjustment zone level using 2004 mid year population estimates. The calculations are carried out for only four groups of zones: The City and Inner London; Outer London; the south-east outside London and the south east fringe. The average of the location and site factors, and the relativities, are shown in Table 4.

Table 4 Average Schools Valuation Factor for each RCA Zone		
RCA Zone	Location and Site Factors	Ratio to "Rest of England"
Inner London Borough	1.6885	1.6456
Outer London Borough	1.5228	1.4841
Rest of the South East	1.3154	1.2820
South East Fringe	1.0638	1.0368
Rest of England	1.0261	1.0000
England	1.1800	1.1500

1. As when calculating RCA factors for individual service blocks, these relativities need to be multiplied by the Education rates share of 1% (as explained in paragraph 29).

Share of business rates costs in overall costs

28. For each service block, the relative adjustments are weighted by the proportion of rates costs in total spending, as estimated from the Subjective Analysis Return 2003/04 (SAR) which showed that expenditure on business rates accounts for around 1% of council spending across most service blocks. The exception is Personal Social Services where spending on rates costs are very small as a proportion of total council spending on social services. The resulting rates share estimates were as follows:

Education	1%
Childrens Social Care	0%
Adult Personal Social Services	0%
Police	1%
Fire	1%
Highway Maintenance	1%
Environmental, Protective and Cultural Services	1%

29. Using these percentages, RCA factors are calculated (in the same way as described in paragraph 19 for the LCA) for each FSS service block for each ACA class of local authority and sub-region. The total ACA factors are then simply the sum of the LCA factors and the RCA factors minus 1. Further information is in reference 4.

The Isles of Scilly

30. The Isles of Scilly receive a judgmental area cost adjustment because of the unique circumstances which they face: the small population of the islands and their considerable remoteness from the mainland. There are special factors for Education, PSS and 'Environmental, Protective and Cultural Services', Highways maintenance and Fire. The ACA factors being 1.5 in each case.

Application of the area cost adjustment

31. The area cost adjustment factors for each authority or group of authorities for each service block are given in Annex H to The Local Government Finance Report. They are generally applied at the final stage of the FSS calculation. They have the effect of increasing the FSS for those local authorities whose ACA factor is greater than one. The ACA factors are applied to each of the main FSS service blocks, apart from the Capital Financing service block. There is no explicit cost adjustment factor in the Capital Financing FSS since credit approvals, like capital allocations before them, already take account of cost differences between areas.

ANNEX A

References

- 1 Using the full ASHE data set too calculate the ACA (paper SWG/05/26)
- 2 Local Government Finance: Review of the Area Cost Adjustment, Report by Professor Robert F Elliot, David McDonald & Roy MacIver. (University of Aberdeen, 1996)
- 3 Area Cost Adjustment: Updating the Labour Share Estimates (paper SWG:SSASG(93)(106)).
- 4 Updating the labour and rates costs proportions of the ACA (paper SWG/05/22)

ANNEX B

Relative Wage Coefficients for ACA Areas

Area	Coefficients		
	2002	2003	2004
Avon	1.05746	1.05868	1.05242
Beds & Herts nf	1.08197	1.06669	1.07067
Berks nf	1.18771	1.16506	1.17185
Bucks nf	1.12127	1.11379	1.11905
Cambridgeshire	1.07633	1.06004	1.06734
Cheshire	1.03124	1.03239	1.01940
City of London	1.56962	1.59057	1.59117
Cleveland	1.00997	0.97902	0.99432
Cornwall	0.92953	0.94497	0.94697
Cumbria	0.98160	0.97374	0.97009
Derbyshire	0.99237	0.98881	0.98151
Devon	0.97408	0.97134	0.97628
Dorset	0.98727	0.98033	0.98631
Durham	0.97074	0.98476	0.97991
DyfedPows Police	0.95934	0.95278	0.93291
East Sussex	1.02423	1.02004	1.01625
Essex nf	1.01165	1.01162	1.02940
Gloucestershire	1.02816	1.04031	1.02452
Greater Manchester	1.03625	1.02568	1.02886
Gwent Police	0.98782	0.97937	0.99388
Hampshire & IoW	1.06460	1.05754	1.05600
Hereford & Worcester	0.97862	0.96820	0.97956
Herts & Bucks fringe	1.13765	1.12662	1.13909
Humberside	0.97394	0.96873	0.96956
Inner London	1.35687	1.34000	1.33975
Kent & Essex Fringe	1.09596	1.12584	1.10936
Kent nf	1.01609	1.01451	1.01609
Lancashire	0.98370	0.98048	0.98711
Leicestershire	1.01397	1.00711	1.01829
Lincolnshire	0.97238	0.95043	0.95270
Merseyside	1.01849	0.99413	1.00662
Norfolk	0.97670	0.96704	0.97646
North Wales Police	0.99402	0.96345	0.98314
North Yorkshire	1.01119	0.99719	1.00147
Northamptonshire	1.04035	1.02267	1.02599
Northumberland	0.97290	0.97483	0.98868
Nottinghamshire	1.00727	1.00498	1.00048
Oxfordshire	1.11711	1.09076	1.08381
Rest London	1.12129	1.11070	1.10336
Shropshire	0.97131	0.96774	0.96770
Somerset	0.98447	0.97082	0.96499
South Wales Police	1.01318	1.00650	1.01119

South Yorkshire	1	1	1
Staffordshire	0.98134	0.96828	0.97307
Suffolk	0.99268	1.00534	0.98614
Surrey, WSussex & Berks fringe	1.18015	1.17666	1.16563
Tyne & Wear	0.99591	0.99461	1.00517
Warwickshire	1.04193	1.02541	1.02914
West London	1.19549	1.19981	1.18805
West Midlands	1.04164	1.02426	1.01521
West Sussex nf	1.03777	0.98717	1.00628
West Yorkshire	1.02078	1.01786	1.00851
Wiltshire	1.04620	1.03370	1.03795
Standardisation Used			
Occupational Dummies	80		
Industry Dummies	58	58	57
Age Dummies	11		
Gender Dummy	Yes		
Part time Dummies	Yes		
Public Sector	Yes		
Dependent Variable	Natural Log of Hourly Earnings Excluding Overtime Payments		

ANNEX C

RCA Geography

ACA areas in each RCA Area

City of London, Inner London, West, South West and North West London and the Rest of Outer London are as in the Appendix to Annex H of the Local Government Finance Report.

London's Fringe comprises the Berkshire, Surrey and West Sussex fringe, the Hertfordshire and Buckinghamshire fringe and the Kent and Essex Fringe.

The Rest of the South East comprises non-fringe Berkshire, West Sussex, Essex, Buckinghamshire, Kent and Hertfordshire together with Bedfordshire, East Sussex, Oxfordshire, Suffolk, Hampshire and the Isle of Wight.

The South East Fringe comprises Avon, Wiltshire, Gloucestershire, Leicestershire, Warwickshire, West Midlands, Cambridgeshire and Northamptonshire.

The Northern RCA area comprises Cheshire, Greater Manchester and West Yorkshire.

The Authorities within each of the above ACA areas are outlined in the Appendix to Annex H of the Local Government Finance Report.

ANNEX D

Map of LCA Geography

