

Methodology Guide for the Area Cost Adjustment 2008/09, 2009/10 and 2010/11

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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 Relative Needs Formula (RNF) 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 (LCA) 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 (RCA) 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 (ONS) 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 LCA 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 wage 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 wages 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 on the area variables represent the relative wage in each area, after allowing for differences that are due to the control variable.

12. As the distribution of hourly earnings is skewed, it is usual in regression analysis of wages to use the log of earnings. Therefore, the first step in producing the LCA factors is to unlog these coefficients. The anti-logged coefficients produced by this analysis are shown in Annex B.

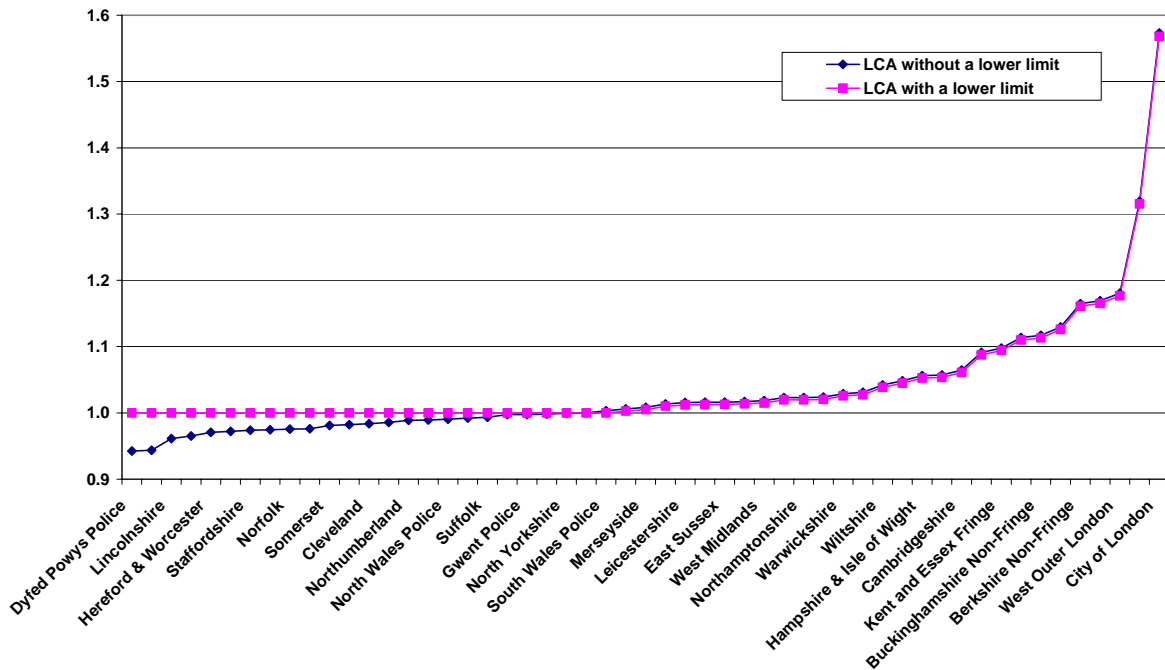
SMOOTHING

13. 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 area's LCA factors. For 2008/09, 2009/10 and 2010/11, ASHE data from 2004, 2005 and 2006 has been used to calculate the smoothed values.

LOWER LIMIT

14. 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 judgement, 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 Environmental, Protective and Cultural Services (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 2008/09, 2009/10 and 2010/11.

Chart 1: The LCA with and without a Lower Limit



15. For 2008/09, 2009/10 and 2010/11, the lower limit has been set at South Wales Police. The LCA values are re-indexed so that South Wales Police 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 which has an LCA above the lower limit and Somerset, which is below the lower limit.

Table 1 The LCA Calculation	West Midlands			Somerset		
	2004	2005	2006	2004	2005	2006
Regression Coefficients (from Annex B)	0.0123	0.0365	0.0055	-0.0372	-0.0125	-0.0080
Unlogged Coefficients	1.0124	1.0372	1.0055	0.9635	0.9875	0.9920
Three Year Average			1.0183			0.9810
Re-index so South Wales Police = 1 (by dividing by South Wales Police LCA of 1.003328)			1.0150			0.9778
Apply Lower Limit?			No			Yes
Final LCA Value			1.0150			1.0000

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

Table 2	LCA Factors
City of London	1.5680
Inner London	1.3151
West Outer London	1.1766
Surrey, Berkshire and West Sussex Fringe	1.1654
Berkshire Non-Fringe	1.1609
Hertfordshire and Buckinghamshire Fringe	1.1257
Buckinghamshire Non-Fringe	1.1131
Rest Outer London	1.1099
Kent and Essex Fringe	1.0941
Oxfordshire	1.0877
Cambridgeshire	1.0610
Bedfordshire and Hertfordshire Non-Fringe	1.0535
Hampshire & Isle of Wight	1.0526
Avon	1.0449
Wiltshire	1.0386
Greater Manchester	1.0275
Warwickshire	1.0256
Gloucestershire	1.0203
Northamptonshire	1.0197
Essex Non-Fringe	1.0195
West Midlands	1.0150
Kent Non-Fringe	1.0136
East Sussex	1.0127
Nottinghamshire	1.0027
West Yorkshire	1.0126
Leicestershire	1.0120
Cheshire	1.0100
Merseyside	1.0050
South Wales Police	1.0000

Table 2	LCA Factors
West Sussex Non-Fringe	1.0000
North Yorkshire	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

16. 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.

17. The LCA is applied only to that proportion of the RNF 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.

18. Estimating the proportion of local authority expenditure on wage and other labour costs is not straightforward. While we have up to date information on English local authorities expenditure on their own staff, we do not have a comprehensive source of information on staff costs for contracted out services. In addition, there are employment components in many of the items which fall within headings which are ostensibly non-employment costs such as repair and maintenance to buildings.

19. The Department's paper SWG-07-27 contained proposals to update the weightings in the LCA using the most recent data available (see reference 4). This would use the 2005-06 Subjective Analysis Return (SAR) and the 2005-06 Trading Services Revenue Accounts (TSRA).

20. The SAR provides analysis of local authority expenditure under several service blocks by type of expenditure. It is scaled up from a survey of 143 local authority accounts. The TSRA records the accounts of a number of internally and externally provided local authority services. The TSRA provides information on total local authority expenditure on these services divided between staff and running costs. It is sourced from a 100% survey of local authority accounts. They are the most detailed evidence base for examining the labour-cost share of local authority expenditure.
21. For three formula sub-blocks, services are largely provided by the local authorities' own staff. Using information from SAR and TSRA, it is possible to update the proportion of council expenditure on labour costs for police, fire and education services. The updated analysis shows that these weights should remain unchanged at 85%, 85% and 80% respectively.
22. Services which come under the headings of EPCS, Highway Maintenance and Personal Social Services (PSS) are far more likely to be provided by a third-party whether contracted out or through joint commissioning.
23. Here judgement is needed to update the weight given to the LCA. The judgement has taken account of information from the Base Estimate Returns (1992/93), Subjective Analysis Return 2005/06, the Trading Services Revenue accounts 2005/06, Revenue Outturn forms 2005/06 and Council Personal Social Services Gross Expenditure PSS EX1 2005/06.
24. Using all these data sources as well as evidence presented at Settlement Working Groups (see documents in reference 5) and during this summer's consultation, a judgement has been taken on the updated weight to be given to the LCA. The resulting estimated labour shares for each service block are as follows:

Education	80%
Personal Social Services	
Children and Younger Adults	75%
Older People	80%
Police	85%
Fire	85%
Highway Maintenance	60%
Environmental, Protective and Cultural Services'	65%

25. Using these percentages, LCA factors are calculated for each RNF 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:

$$1 + ((1.3151 - 1) * 80\%) = 1.2521$$

The Rates Cost Adjustment

26. 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

27. For RNF 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 2006 (England and Wales)* (<http://neighbourhood.statistics.gov.uk/dissemination/Download1.do?bhcp=1>)
 - the total rateable value, and number of hereditaments, of commercial offices, including crown properties, at 1 July 2007. These are provided by HM Revenue and Customs.
28. Rateable values per square metre are estimated by firstly calculating average rateable values at 1 July 2007. This is done by dividing the total rateable values as at 1 July 2007 by the number of hereditaments relating to 1 July 2007. These average rateable values are then multiplied by the number of commercial offices at 1 April 2006 and divided by the total floorspace in square metres for commercial offices at 1 April 2006.
29. 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 Communities and Local Government on the National Non-Domestic Rates Provisional Contributions Return 2007/08, the ratio of net to gross yield is calculated, and multiplied by the rateable values per square metre.
30. 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 2006 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.
31. 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 2008/09, 2009/10 and 2010/11, 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	274.3261	4.1827
Inner London	167.2206	2.5497
Outer London	108.3317	1.6518
London Fringe	130.9131	1.9961
Rest of the South East	89.4629	1.3641
South East Fringe	84.4242	1.2872
Northern Conurbation	79.9502	1.2190
Rest of England & Wales	65.5856	1.0000
England and Wales	88.8740	1.3551

32. 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 36).

WITHIN THE EDUCATION BLOCK

33. 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.
34. 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 2006 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	1.6875	1.6300
Outer London Borough	1.5228	1.4709
Rest of the South East	1.3170	1.2721
South East Fringe	1.0576	1.0216
Rest of England	1.0353	1.0000
England	1.1800	1.1398

35. 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 36).

Share of business rates costs in overall costs

36. 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 2005/06 (SAR) which showed that expenditure on business rates accounts for around 1% of council spending across most service blocks. 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	2%

37. Using these percentages, RCA factors are calculated (in the same way as described in paragraph 25 for the LCA) for each RNF 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 6.

Application of the area cost adjustment

38. 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 RNF calculation. They have the effect of increasing the RNF for those local authorities whose ACA factor is greater than one. The ACA factors are applied to each of the main RNF service blocks, apart from the Capital Financing service block. There is no explicit cost adjustment factor in the Capital Financing RNF 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 to 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 proportion of the ACA which is accounted for by labour costs (paper SWG/07/27)
- 5 Report to the Settlement Working Group by the Association of North East Councils: Reviewing the Proportion of Employee Costs for the ACA (papers SWG/07/28 and SWG/07/52)

Updating the proportion of the ACA which is accounted for by labour costs: Response to Settlement Working Group Paper (SWG/07/27)
- 6 Updating the labour and rates costs proportions of the ACA (paper SWG/05/22)

ANNEX B

Anti-logged relative Wage Coefficients for ACA Areas

Area	Coefficients		
	2004	2005	2006
Avon	1.052171	1.048685	1.044169
Beds & Herts nf	1.064872	1.066598	1.039604
Berks nf	1.168844	1.163664	1.161719
Bucks nf	1.125422	1.123059	1.101964
Cambridgeshire	1.067568	1.074622	1.051464
Cheshire	1.018962	1.031257	0.989721
City of London	1.594161	1.597846	1.527649
Cleveland	0.991093	0.989303	0.970484
Cornwall	0.942597	0.943039	0.945429
Cumbria	0.966691	0.97409	0.982857
Derbyshire	0.978222	1.013194	0.984934
Devon	0.972537	0.983216	0.972568
Dorset	0.975679	0.997507	0.994484
Durham	0.976552	0.979304	0.960546
DyfedPows Police	0.944175	0.950481	0.933208
East Sussex	1.00851	1.021436	1.018339
Essex nf	1.027462	1.026934	1.014394
Gloucestershire	1.020857	1.038122	1.012225
Greater Manchester	1.026267	1.037015	1.029547
Gwent Police	0.994126	1.003156	0.995469
Hampshire & IoW	1.054617	1.05832	1.055488
Hereford & Worcester	0.977862	0.966819	0.967247
Herts & Bucks fringe	1.124192	1.148544	1.115639
Humberstone	0.96209	0.977261	0.956331
Inner London	1.329868	1.331753	1.29687
Kent & Essex Fringe	1.097808	1.103853	1.091434
Kent nf	1.018078	1.028352	1.004463
Lancashire	0.984406	0.995272	0.97684
Leicestershire	1.007959	1.021086	1.016986
Lincolnshire	0.946675	0.978221	0.959105
Merseyside	1.008723	1.020436	0.995758
Norfolk	0.973331	0.98306	0.969322
North Wales Police	0.980176	1.004686	0.986316
North Yorkshire	0.996588	1.000739	1.000293
Northamptonshire	1.022464	1.032035	1.014676
Northumberland	0.988857	0.992271	0.985462
Nottinghamshire	1.000291	1.015463	1.002366
Oxfordshire	1.090968	1.100144	1.082709
Rest London	1.100135	1.12969	1.111075

Shropshire	0.966543	0.993657	0.986595
Somerset	0.963493	0.987538	0.992036
South Wales Police	1.013039	1.004386	0.992558
South Yorkshire	1	1	1
Staffordshire	0.970593	0.982823	0.968285
Suffolk	0.983794	0.998335	0.997806
Surrey, WSussex & Berks fringe	1.1648	1.179823	1.163219
Tyne & Wear	1.00104	1.004503	0.98839
Warwickshire	1.017365	1.03891	1.030899
West London	1.185182	1.196893	1.159487
West Midlands	1.012377	1.037185	1.005474
West Sussex nf	1.007089	0.99643	0.988841
West Yorkshire	1.005511	1.028918	1.01349
Wiltshire	1.040372	1.051637	1.034229
Standardisation Used			
Occupational Dummies	80		
Industry Dummies	57	58	58
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 (England only)

