

## **Individual Labour Cost Factors for each Local Authority above the Area Cost Adjustments (ACA) Lower Limit.**

### **Introduction**

At SWG the Department agreed to circulate the labour cost adjustment (LCA) factors used in the review of the geography of the ACA. The factors are in the accompanying excel file 'LCA factors for SWG.xls'

### **The Geography of this Analysis**

To keep this analysis manageable, and to minimize the chance of errors, we have looked at each ACA area separately. So, instead of producing one very large set of shire district LCA factors we have produced 26 separate sets, one for each ACA area above the lower limit. As a result, it is not possible to make comparisons between shire districts in different ACA areas from this data.

### **LCA Calculation**

The labour cost adjustment is produced by multivariate regression analysis in which the natural log of hourly earnings is regressed against a series of worker characteristics; age, sex, employment tenure, industry and occupation, public and private sector and workplace location. We include worker characteristics in the analysis so that we can take account of the different composition of the workforce in different areas when we calculate the LCA.

In this type of regression, one variable from each category of variable is omitted from the regression analysis. This variable becomes the base case against which the other variables in that category are compared.

### **How to read the data**

When we calculate shire district level LCA factors, one local authority in each ACA area is omitted from the regression analysis. This local authority is the base case against which the other local authorities in that area are compared. The base case is generally chosen because it has a relatively large sample size, but the choice of the base case makes no difference to the results of the analysis.

The LCA factors shown below look different from the usual ACA factors. These LCA factors are expressed as a percentage difference between the LCA for each local authority and the **base case**.

Table 1 below shows the results for Hertfordshire and Buckinghamshire Fringe ACA area.

#### **Hertfordshire and Buckinghamshire Fringe**

	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>Average</b>
South Buckinghamshire District Council	-1%	7%	5%	4%
Welwyn Hatfield District Council	0%	7%	8%	5%
Hertsmere Borough Council	-3%	2%	4%	1%

East Hertfordshire District Council	-4%	1%	-3%	-2%
Chiltern District Council	-3%	-2%	3%	-1%
Dacorum Borough Council	-1%	2%	6%	2%
St Albans City Council	-4%	3%	5%	1%
<b>Watford Borough Council</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
Broxbourne Borough Council	-7%	-8%	-3%	-6%

**Table 1 – Analysis of the LCA by borough in the Hertfordshire and Buckinghamshire Fringe ACA Area**

Watford is the base case in this regression. The regression was run using the 2002, 2003 and 2004 ASHE data used to calculate the 2007/08 ACA. The table shows the percentage change in the LCA for each shire district in each year of ASHE data compared to Watford.

We have then simply calculated the range of difference by taking the highest average change in an areas LCA from the lowest. In this case Welwyn had the highest relative labour costs and Broxbourne has the lowest. So the range of change is 5% - -6% = 11%.

We intend to re run this analysis with the latest ACA data and present a paper to the April SWG. We will also update the median wage analysis, using 2006 ASHE data. An extract of this data from the NOMIS website is in the excel file 'ASHE median earnings 2006.xls'.