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Abstract

This article describes the calculation of London's first Living Wage, which was set in 2005. It reproduces, in citable form and, for scholarly purposes, the report of the same name produced by the authors for the Greater London Authority, which is available on www.london.gov.uk/mayor/economic_unit/docs/a_fairer_london.pdf

A Fairer London: The Living Wage in London

Alan Freeman

Leticia Veruete-McKay

Summary

This report considers the issue of a living wage in London. It also looks at what threshold might be considered as constituting poverty level wages in London.

Two main approaches to calculate a living wage are considered. One approach, developed by the Family Budget Unit, estimates basic living costs and calculates the wage required to meet those costs. The other is based on income distributions and will therefore be termed the Income Distribution approach.

A 'living wage' in London has been calculated in two stages. First a 'poverty threshold wage' has been calculated. This has been done by two methods. The Basic Living Costs approach yields a figure of £5.70 per hour for London. The level defined by the Income Distribution approach takes 60 per cent of median income as defining a poverty level wage – for London this yields a figure of £5.90. The poverty threshold wage used in this report is the average of the two figures, £5.80.

This figure however is a poverty threshold wage. A 'living wage' must yield a secure margin ensuring that the person involved does not fall to the level of poverty wages. To achieve this a figure of 15 per cent has been added to the poverty level wage. This yields a figure of £6.70 per hour as a living wage for London. If means-tested benefits were not taken into account (ie not including tax credits, housing benefits or council tax benefits) the equivalent living wage figure would be approximately £8.10 per hour. This report, however, considers that benefits and tax credits must be taken into account, as part of the aim of the tax and benefit system is to redistribute income the least well off sections of society while ensuring that disadvantages are not placed in the way of securing employment. The figure put forward for a living wage in London is therefore £6.70 per hour.

Data from the Labour Force Survey (LFS) suggests that 85 per cent of full-time employees in London, over 2.2 million employees, receive more than the living wage. Around six per cent of full-time workers in London, that is 170,000 employees, receive wages that are below living wage levels but above poverty threshold levels. A further nine per cent, around 230,000 employees receive wages that are below poverty level wages.

Further, 50 per cent of part-time workers in London receive more than a living wage. Around 14 per cent, 93,000 employees, receive less than the living wage but more than poverty level wages. Finally, 35 per cent of part-time workers, around 230,000 employees, receive less than poverty threshold wages. Altogether around one in seven of employees in London receive less than poverty level wages and around one in five receive less than the living wage. The fact that poverty level wages in London are significantly above the national minimum wage, which will be £5.05 per hour from October, is primarily due to much higher housing costs in London. If London housing costs were the same as the UK average the poverty threshold wage in London would fall to around £5.30 per hour. In short the single biggest factor in raising the proportion of employees in London receiving below poverty threshold wages is high housing costs.

1. Introduction

This report provides an analysis of what a living wage in London might be. This is in furtherance of the Mayor's policy priority highlighted in his manifesto last year.

This paper outlines the two main approaches that can be used to help determine a living wage for London: the Basic Living Costs approach and the Income Distribution approach.

1.1 Structure

In what follows the Basic Living Costs approach is outlined and the wages that derive from that approach illustrated. A description of the Income Distribution approach follows together with the wage levels suggested by that method. The results from the two approaches are then compared. A series of appendices provide more information on the calculations.

2. Basic Living Costs Approach

This section considers the Basic Living Costs approach that was developed by the Family Budget Unit (FBU). The FBU costed the expenditure required to achieve, what it defines as, a *low cost but acceptable* (LCA) standard of living, for a range of 'typical' families¹. Depending on the working patterns of the different family types, this expenditure, or budget, can be converted into a wage level.

This wage is not the same as a minimum wage. It is defined by the FBU as a wage that achieves an adequate level of warmth and shelter, a healthy palatable diet, social integration and avoidance of chronic stress for earners and their dependents².

FBU estimates of basic living costs (LCA family budgets) were developed on the basis of costs in York, but the FBU explain how these budgets should be adapted to local conditions in other parts of England.

In this section, FBU assumptions are applied as closely as possible, adjusting them for London conditions. The section begins with some background to the calculations and then considers how the costs and earnings have been calculated before considering the main results derived from this approach.

2.1 Family types

The initial FBU basic living costs (also called the LCA budget) estimates were based on two model families: a two adult household with two children aged ten and four and a one adult household with two children aged ten and four. To this the GLA has added households without children as couples and single persons without children make up a substantial part of London's workforce and, in some instances, may face particular problems of poverty and social exclusion.

A range of different household working patterns (e.g. lone parent working full-time or couples with one person working full-time) are considered. For single persons without children, working part-time is not considered for the purposes of estimating the living wage. This is because people in this situation could work full-time to supplement their income. For the same reason couples where only one person works, and that person works part-time, are not considered. Lone parents working part-time are considered in the analysis principally because of the government's attempts to move lone parents back into work. However, it is questionable whether lone parents working part-time

should be considered for the purposes of setting a living wage for all persons across London. This is because in the same way as has been argued above, the tax and benefit system should operate such that full-time work is also a viable option for lone parents.

Whilst it is not practicable to provide an exhaustive list of all possible household types and associated working patterns, the ‘representative household’ approach adopted here provides a guide to conditions that are likely to affect the majority of household types in London.

2.2 Treatment of tax credits and benefits

The FBU provides two alternative calculations of the living wage, depending on whether or not tax credits and other benefits are included in household income³. For the main results, GLA Economics has included tax credits and benefits in the calculation of income, although for comparison purposes the living wage, excluding means tested benefits, has also been calculated.

2.3 Costs

Basic living costs are considered under the following headings:

- Housing
- Council Tax
- Transport
- Childcare
- All other costs (a ‘regular shopping basket’).

For the first four items above, cost estimates are based on direct data for London⁴. For the fifth item, the Office for National Statistics (ONS)’s comparison of regional price differentials has been used to uprate the costs of a shopping basket in York – the location for the initial FBU work – to London levels⁵. Tables 2.1 to 2.3 summarise the cost calculations; details are supplied in Appendix A.

When considering costs, the FBU considers four options: families that do or do not consume alcohol, and families that do or do not use a car. This report considers only families that consume no alcohol and do not use a car.

As well as costs for households with children, the FBU has recently provided costs for a single person. For household types not considered by the FBU (i.e. couples without children), an approximate estimate of the LCA costs has been made using the methodology proposed by Friedrich Engel for calculating the cost of a child to a family⁶. This provides an adjustment factor to be applied to the final LCA cost of a comparable FBU family with two children. Based on this, the costs of two children are estimated to be 45 per cent of a two-child, two-parent family’s costs. For this reason the household type of ‘Couple with no children’ does not appear in Tables 2.1 to 2.3. This approximation is only an estimate and further research will be needed to produce a more robust figure.

Table 2.1 compares costs for each type of household, living in York and living in London.

Table 2.1: Summary of total weekly basic living costs (or LCA budget) for York and London (£ per week, 2004)

	Couple				Single parent		Single no children	
	2ft	1ft 1pt	1ft	1pt	ft	pt	ft	pt
York	*	314.22	270.04	270.04	320.80	255.73	142.86	142.11
London	501.54	411.24	308.19	308.19	434.08	343.78	188.68	188.68
Ratio (London/York)	N/A	1.31	1.14	1.14	1.35	1.34	1.28	1.29

Notes: ft = full-time, pt = part-time

*In its initial study the FBU did not consider a couple in which both worked full-time.

Source: GLA Economics based on various data sources (see Appendix A)

Table 2.2 gives a breakdown of estimates supplied by the FBU for its model families living in York in 2004.

Table 2.2: Basic Living Costs (or LCA budget) for typical families living in York (£ per week, 2004)

	Couple				Single parent		Single no children	
	2ft	1ft 1pt	1ft	1pt	ft	pt	ft	pt
Regionally indexed costs	*	167.11	167.11	167.11	126.59	126.59	74.19	74.19
Housing	*	56.54	56.54	56.54	56.54	56.54	49.84	49.84
Council Tax	*	16.02	16.02	16.02	12.01	12.01	10.52	10.52
Total transport costs	*	30.37	30.37	30.37	17.17	16.41	8.31	7.56
Childcare costs	*	44.18	0.00	0.00	108.49	44.18	0.00	0.00
Total costs	*	314.22	270.04	270.04	320.80	255.73	142.86	142.11

Notes: ft = full-time, pt = part-time

*In its initial study the FBU did not consider a couple in which both worked full-time.

Source: GLA Economics based on data from FBU (see Appendix A)

Table 2.3 gives the same breakdown as in Table 2.2 for GLA Economics' estimates for the same families living in London in 2004.

Table 2.3: Basic Living Costs (or LCA budget) for typical families living in London (£ per week, 2004)

	Couple				Single parent		Single no children	
	2ft	1ft 1pt	1ft	1pt	ft	pt	ft	pt
Regionally indexed costs	178.44	178.44	178.44	178.44	135.55	135.55	79.35	79.35
Housing	77.75	77.75	77.75	77.75	77.75	77.75	74.00	74.00
Council Tax	21.50	21.50	21.50	21.50	16.13	16.13	16.13	16.13
Total transport costs	49.70	49.70	30.50	30.50	30.50	30.50	19.20	19.20
Childcare costs	174.15	83.85	0.00	0.00	174.15	83.85	0.00	0.00
Total costs	501.54	411.24	308.19	308.19	434.08	343.78	188.68	188.68

Notes: ft = full-time, pt = part-time

Source: GLA Economics based on various data sources (see Appendix A)

2.4 Earnings

Earnings, taxes and benefits all depend on the hourly wage. As well as the wage, the circumstances of the household will affect the amount of the various benefits and tax credits that are payable. Working Tax Credit, Child Tax Credit, Child Benefit, Housing Benefit and Council Tax Benefit are the main tax credits and benefits considered in this report. Of these, only Child Benefit is not means-tested. Some benefits depend on childcare and rental costs. For the purposes of these calculations the childcare and rental costs are as set out in section 2.3. Appendices B and C provide more information on the various tax credits and benefits and how they fit into these calculations.

Table 2.4 illustrates the disposable income achieved by the various different household types, assuming different working patterns, at the level of the minimum wage (£4.85)⁷. In all the calculations that follow a full-time worker is assumed to work 38.5 hours a week and a part-time worker 17 hours. This follows the assumptions used in the initial FBU work.

Table 2.4 Income for different households, including and excluding means-tested benefits, at the minimum wage (£ weekly figures)

	Couple with two children			Lone parent		Couple with no children			Single no children
	2ft	1ft 1pt	1ft	ft	pt	2ft	1ft 1pt	1ft	ft
Joint earnings at £4.85 per hr	373.5	269.2	186.7	186.7	82.5	373.5	269.2	186.7	186.7
Taxes	51.5	25.7	25.7	25.7	0.0	51.5	25.7	25.7	25.7
Earnings net of tax	322.0	243.4	161.0	161.0	82.5	322.0	243.4	161.0	161.0
Including all relevant benefits									
All relevant benefits	198.6	174.0	166.3	268.3	235.8	0.0	38.9	103.2	26.7
Total income	520.6	417.4	327.3	429.3	318.2	322.0	282.4	264.2	187.7
Excluding means-tested benefits									
Child benefit	28.4	28.4	28.4	29.0	29.0	0.0	0.00	0.00	0.00
Total income	350.4	271.8	189.4	189.9	111.4	322.0	243.4	161.0	161.0

Notes: ft = full-time, pt = part-time

All figures reported to 1 decimal place (or 10 pence)

Source: GLA Economics' own calculations

Table 2.5 shows the basic living costs, or LCA budget standard, for the various household types (from Table 2.3) together with the weekly income derived at the minimum wage level (from Table 2.4). Appendix D illustrates the difference between income and basic living costs (the LCA budget standard) at £5, £6, £7 and £8 per hour.

Table 2.5 shows that for some household groups, the minimum wage is sufficient to cover their basic living costs (assuming all relevant tax credits and benefits are claimed). However, Table 2.5 also illustrates that for some households the minimum wage is not sufficient to cover basic living costs.

Using basic living costs as a target income level it is possible, through iteration of the tax and benefit model established for this exercise, to calculate the wage required for each household to cover its basic living costs. Table 2.6 shows the wage required for each household type to meet its basic living costs (or LCA budget).

Table 2.5: Income, costs, and income after costs, at minimum wage (£ per week)

	Couple with two children			Lone parent		Couple without children			Single person
	2ft	1ft 1pt	1ft	Ft	pt	2ft	1ft 1pt	1ft	ft
Including all relevant benefits									
Total income	520.6	417.4	327.3	429.3	318.2	322.0	282.4	264.2	187.7
Basic living costs	501.5	411.2	308.2	434.1	343.8	317.0	317.0	309.1	188.7
Income minus costs	19.1	6.2	19.1	-4.8	-25.5	5.0	-34.6	-44.9	-1.0
Excluding means-tested benefits									
Total income	350.4	271.8	189.4	189.9	111.4	322.0	243.4	161.0	161.0
Basic living costs	501.5	411.2	308.2	434.1	343.8	317.0	317.0	309.1	188.7
Income minus costs	-151.2	-139.4	-118.8	-244.1	-232.4	5.0	-73.5	-148.1	-27.7

Notes: ft = full-time, pt = part-time

All figures reported to 1 decimal place (or 10 pence)

Source: GLA Economics

Table 2.6 shows that the weighted average wage required to meet basic living costs is around £5.70 assuming all benefits are claimed, compared to £7.30 if means-tested benefits are not claimed.

Table 2.6 Wage required to meet basic living costs for different households

Earners	Couple with two children			Lone parent		Couple without children			Single person	Weighted average
	2ft	1ft 1pt	1ft	ft	pt	2ft	1ft 1pt	1ft	ft	
Number of people ('000s)	455	364	173	75	42	425	340	162	802	
Wage level including all relevant benefits	4.9*	4.9*	4.9*	5.3	9.1	4.9*	6.7	10.6	5.5	5.7
Wage level excluding means tested benefits	7.8	8.4	9.5	14.3	>15	4.9*	6.7	10.6	5.9	7.3

Notes: ft = full-time, pt = part-time

The number of people in different household groups was derived from Census 2001

All figures rounded to 1 decimal place (or 10 pence)

* Minimum wage sufficient to meet basic living costs (LCA budget standard)

It should be noted that the minimum wage (of £4.85) has been used as a lower limit for the wage when calculating the weighted average wage.

Source: GLA Economics

Assuming all relevant benefits and tax credits are claimed, around half of the working households considered in this analysis would achieve their basic living costs, or LCA standard of living, at the minimum wage. At the weighted average wage of £5.70 per

hour around 80 per cent of the working households considered would achieve their basic living costs (or LCA standard of living).

3. The Income Distribution Approach

In the previous section the Basic Living Costs approach to estimating what a living wage might be was discussed. This section considers the other main method, the Income Distribution approach. This approach considers what wage is required to move a household to a certain point on the income distribution scale.

The Department for Work and Pensions (DWP) provides indicators on the average income of households in the UK⁸. This measure uses household disposable incomes, adjusted for household size and composition, as a proxy for material living standards or, more precisely, for the level of consumption of goods and services that people could attain given the disposable income of the household in which they live⁹.

DWP provides two measures of disposable income; before and after housing costs. This report only considers the disposable income after housing costs. The disposable income after housing costs represents earnings, all social security benefits, pensions, maintenance payments, educational grants, and cash value of payments in kind such as free school meals for all members of the household less income tax (including national insurance, pension contributions) and maintenance or support payments made to people outside the household. It deducts rent, mortgage interest payments, water charges and structural insurance premium¹⁰.

Based on this measure, household median income in 2002/03 was £286 per week. This figure is for a household consisting of a couple with no children. DWP provide details of the process by which to calculate equivalent incomes for other household types. Details of this process (called 'equivalisation'), and the income distribution approach more generally, are set out in Appendix E.

Using the equivalisation process, incomes for the various household types considered earlier have been calculated. Table 3.1 illustrates the median income at different percentages of median income for the different household types.

Table 3.1: Disposable income thresholds for different household types (£ per week)

	Couple with children	Lone parents	Couple with no children	Single person
Median income	403.26	274.56	286.00	157.30
70% of median	282.28	192.19	200.20	110.11
65% of median	262.12	178.46	185.90	102.25
60% of median	241.96	164.74	171.60	94.38

Source: GLA Economics based on DWP data

Given these income levels, and using the same tax and benefit model as in the first section, wages that achieve the different household's disposable income can be approximated¹¹.

Table 3.2 shows the approximate wage required to achieve the level of disposable income that would place each household within 60, 65 and 70 per cent of median income (both including and excluding benefits).

Table 3.2: Approximate wage required to reach a certain percentage of median income for different households

Earners	Two parents			Lone parent		Couple without children			Single person	Weighted average
	2ft	1ft 1pt	1ft	ft	pt	2ft	1ft 1pt	1ft	ft	
Number of people ('000)	455	364	173	75	42	425	340	162	802	
Including all relevant benefits										
60% of median income	4.9*	5.2	7.9	5.2	8.8	5.3	7.4	11.9	4.9*	5.9
65% of median income	5.5	6.4	9.7	6.3	11.5	5.5	7.7	12.5	6.0	6.8
70% of median income	6.4	7.3	11.4	7.5	14.2	5.8	8.1	13.0	6.4	7.5
Excluding means-tested benefits										
60% of median income	8.0	8.7	10.7	14.5	>15	5.3	7.4	11.9	5.8	7.7
65% of median income	8.4	9.3	11.5	14.8	>15	5.5	7.7	12.5	6.1	8.1
70% of median income	8.9	9.8	12.3	15.0	>15	5.8	8.1	13.0	6.4	8.5

Notes: ft = full-time, pt = part-time

Number of people in different household groups derived from Census 2001.

All figures rounded to 1 decimal place (or 10 pence)

* Minimum wage sufficient to meet 60 per cent of median income threshold.

It should be noted that the minimum wage (of 4.85) has been used as a lower limit for the wage when calculating the weighted average wage.

Source: GLA Economics

The data illustrates that just under half of the working households considered here would achieve the 60 per cent of median income threshold at the minimum wage (assuming all relevant benefits were claimed). The weighted average wage (assuming all relevant benefits are claimed) to achieve 60 per cent of median income is around £5.90. At this wage around three quarters of the households considered achieve the 60 per cent median income threshold.

The data shows that, on average, a wage between around £5.90 and £7.50 relates to between approximately 60 and 70 per cent of median income (assuming all relevant benefits and tax credits are claimed).

4. Comparison Of Approaches And The Wage Distribution

This section compares the results of the two approaches outlined previously and then looks at the wage distribution in London to see what proportion of the working population in London is likely to be affected by a living wage (if it is adopted across London).

Both the Basic Living Costs and Income Distribution approaches find that around half of the households considered in this analysis would cover their basic living costs or achieve 60 per cent of median income, assuming all relevant benefits and tax credits are claimed, at the minimum wage¹².

The weighted average wage from the Basic Living Costs approach is £5.70 per hour compared to £5.90 from the Income Distribution approach. This shows that both approaches produce a roughly similar wage in order to move above, or at least to, the poverty threshold. The analysis suggests, therefore, that a wage around £5.80 risks poverty in London.

Table 4.1 sets out the weighted average wage derived from the various approaches, including and excluding means-tested benefits (e.g. tax credits and housing benefits).

Table 4.1: Weighted average wage (£ per hour)

Approach	Including benefits	Excluding benefits
Basic living costs	5.70	7.30
Income distribution (60%)	5.90	7.70
Income distribution (65%)	6.80	8.10
Income distribution (70%)	7.50	8.50

Notes: All figures rounded to one decimal place (or 10 pence)

Source: GLA Economics

Table 4.1 shows that a wage of around £5.80 allows most households, on average, to move above, or at least to, what might be considered the poverty threshold. Increasing the wage above this level increases a household's disposable income net of basic living costs and moves them closer to median income.

The next section looks at the wage distribution in London to see what proportion of the working population in London would be affected at these wage levels (assuming the wage was implemented across London).

4.1 Wage distribution

Data from the LFS can be used to determine the wage distribution in London¹³.

Appendix F has more details on the wage distribution from this data source.

Table 4.2 shows the proportion of employees in London working full and part-time that earn below £5, £6, £7 and £8 per hour respectively.

Table 4.2. Proportion of employees in London that earn less than various wage levels

	Males	Females	Total employees
	%	%	%
Full-time earning			
< £5 per hour	5.3	5.1	5.2
< £6 per hour	10.5	10.6	10.6
< £7 per hour	16.9	18.3	17.5
< £8 per hour	24.0	26.9	25.2
Part-time earning			
< £5 per hour	33.2	19.5	22.1
< £6 per hour	52.6	37.5	41.0
< £7 per hour	61.5	50.7	53.2
< £8 per hour	69.2	59.6	61.9

Source: GLA Economics' own calculations based on LFS data

Table 4.2 illustrates that just over ten per cent of full-time workers in London earn less than £6 per hour and around 18 per cent of full-time workers earn less than £7 per hour. The table shows that 41 per cent of part-time workers in London earn less than £6 per hour and over half of part-time earners earn less than £7 per hour.

Appendix A. Details Of Cost Calculations

This appendix provides the calculation and sources used for the cost data in section 2. As noted in section 2, costs are considered under five headings which are now considered in detail:

- Housing
- Council Tax
- Transport
- Childcare
- All other costs (a ‘regular shopping basket’)

Housing costs

In line with FBU assumptions this report assumes that a two-child family requires a three-bedroom house.

Data from the Chartered Institute of Public Finance and Accountancy (CIPFA) provides, for each London borough, the average council rent on a three-bedroom property and the number of such dwellings in the council stock. Table A1 shows the median, weighted mean¹⁴ and unweighted mean of these rents, covering the majority of London boroughs.

A second estimate can be obtained by adjusting the FBU figure (for York) in line with the price differential between London and York regions in council and social housing rents. Data from the ONS (see Table A2) shows average council house rents in York and Humber, in England, and in London.

These averages and medians are calculated from council house rentals alone but social housing should also be taken into account. Cambridge Centre for Housing and Planning Research data¹⁵ reveals that the average rental for social housing in London is £82 per week. A more accurate picture of the distribution of the real costs facing the families considered in this study requires knowledge of the distribution of social housing as well as council housing. For the purposes of this work, an approximate estimate has been made that takes into account the higher average costs of social housing as follows: there are 483,000 council houses (of all types) in London and 310,000 units of social housing. Using these as weights, the average of council housing and social housing rents for affordable three bedroom dwellings in London is £77.75 per week.

It should be noted that the assumption that all low-income households in London with children live in council or socially-registered housing is not adequate, but is used as a simplifying assumption in this first report. This issue will require further investigation by the living wage unit in subsequent reports.

For a single person and for couples without children, the assumption that the persons concerned will live in council or socially-registered housing is not realistic. Therefore, this report has used the GLA’s database of London rented accommodation and applied the assumption that a couple without children will live in a rented one-bedroom house, flat or maisonette, and that a single person will live in a bedsit, flatshare or studio flat. In each case the first quartile of the rent distribution has been used as an estimate of typical cost.

This gives a typical rental of £150 per week for a couple, and £74 for a single person.

Council tax

On the basis of data from the Office of the Deputy Prime Minister (ODPM) the majority of London houses are band D or above. This report assumes a band D council rent and calculates, using CIPFA data described in the previous section, the simple average (unweighted mean), median, and weighted mean and council tax for families with children.

An alternative estimate can be made by simply averaging band D council tax using ODPM data. This yields a figure of £21.52.

As a result, a figure of £21.50 for council tax for families with children was adopted. People living on their own such as lone parents are entitled to a 25 per cent single person's discount. It was assumed that lone parents and single men get a 25 per cent discount, that is £16.13.

UK Housing costs

London has significantly higher living costs when compared to other regions across the UK and one of the main reasons for this is due to housing costs. Our calculations for the living wage in London, both for the basic living costs and income distribution approaches, were calculated using London housing costs. However we also calculated the wage from both approaches using UK housing costs.

To derive a measure for UK housing costs we had to calculate housing costs for different types of households. For households with children we used data on social rents from CIPFA.

For childless households, there was no UK-wide private rent data disaggregated by the same house types used for the London calculation. As a result, to calculate UK costs we reduced London private rental costs by ONS's measure of relative housing costs between London and UK as a whole. ONS data show that housing costs in London are around 29 per cent higher than the UK.

This calculation resulted in a basic living cost wage of £5.20 (rounded to the nearest 10 pence) and £5.40 using the income distribution approach. These figures compare to the £5.70 and £5.90 figures derived from the two respective approaches for London.

Childcare

A widely-used figure in calculating London childcare costs is £4.30 per hour¹⁶.

The FBU assesses a standard number of hours of childcare on the basis of family types. This is an average figure throughout the year and takes into account school and other holidays. The FBU states its assumptions as follows:

‘Childminding charges by registered childminders are included for lone mothers working part-time (17 hours per week) and full-time (38½ hours per week); and for second earners in two-parent households (17 hours per week).

Childminding costs after school and during school holidays are taken into account. Childminding hours (which are calculated over one year and include travel time between the place of work and the childminder) average 40½ hours a week for parents working full-time and 19½ hours a week for parents working 17 hours a week.’

Childcare costs in this report have been calculated on the basis of the average London rate of £4.30 and the above standard hours. We have assumed that all households with children, where the only parent or both parents work, incur childcare costs. This is an oversimplification as not all such households will incur childcare costs.

Transport

This report assumes that each earner requires a standard London-wide travel card at a cost of £19.20, and that the older of the two children requires a child bus card at £11.30.

Regional price differentials for standard shopping basket

The ONS publishes detailed estimates of price differentials between each Government Office Region and the London average. From this information, the price relative for each category of expenditure, except for those items already discussed in this appendix, have been calculated. That is, the price of each type of item in London relative to the price of the same type of item in York, these are given below in Table A4.

The ONS provides regional differentials calculated on two different bases:

- (a) national weights – assumes a single nation wide basket of goods
- (b) regional weights – takes into account regional differences in the consumption basket.

National weights have been used for the purpose of this comparison; using regional weights does not appear to give rise to a substantial difference. Table A5 shows the FBU's estimates of costs in York; applying the price relatives in Table A4 gives the results in Table A6, which shows the costs of the same goods in London.

Appendix B: Benefits And Tax Credits

This section reviews the main benefits households can receive in the UK, depending on their earnings and circumstances. The methodology used to calculate these benefits for different types of households is explained in Appendix C.

Earnings and benefits

There are different benefits that households are entitled to get in the UK. These are targeted mainly to help low (and middle) income families. The majority of these benefits are means-tested, with some exceptions such as child benefits (those eligible get them independent of their household income).

The main benefits available to households with someone in work, which are means-tested are:

- Working tax credit
- Child tax credit
- Housing benefits
- Council tax benefits.

In general the amount a household gets, depends on various factors including annual household income, number of hours worked, type of household (couple or lone parent), number of children, and age of children. Therefore, there are several elements in each tax credit or benefit to reflect different needs and circumstances of households.

Child and working tax credits were introduced in April 2003 replacing the previous system of children's and working family's tax credits. A summary is provided of how the different tax credits are calculated based on two main documents by the HM Treasury and Inland Revenue¹⁷ and the Department for Work and Pensions.¹⁸ The end of this appendix presents a summary of GLA Economics' estimates of these benefits in the context of living in London.

Working tax credit

The working tax credit is given to those employed or self-employed, who normally earn low income. Depending on the household circumstances, those that are able to get working tax credit are:

- Aged 16 or over, working 16 hours or more a week and are responsible for a child.
- Aged 16 or over, working 16 hours or more a week and have a disability.
- Aged 25 or over and working 30 hours or more a week.
- Aged 50 or over, working 16 hours or more a week.

The working tax credit has several elements that are applied based on the circumstances of households, see Table B1.

Everyone who works at least 16 hours, with the exception of a single person over 25 working less than 30 hours per week, is entitled to get the basic element.

The second adult/lone parent element as its name indicates is given to the second adult of a couple or a lone parent.

The 30 hour element represents the amount given to a household, if the family jointly works 30 hours or more per week.

The working tax credit has a childcare element, which is given to those households who are working and have children. The childcare element provides 70 per cent of eligible childcare costs incurred up to a maximum of £175 per week for one child. This means that a family with one child can get at most £122.5 per week of the childcare element. Similarly, families with two children can receive up to a maximum of £210 per week (70 per cent of £300). From April 2006, the per cent of eligible cost covered will be 80 per cent. However, we take into account only the changes in the Budget 2005 on the maximum amount eligible childcare costs in our calculations of working tax credit.

Families with disabled members get extra help, being entitled to additional disability or severe disability elements.

Households with a member over 50 years old, receive help depending on the hours worked per week. For instance, if a member of a family (over 50) works between 16 and 30 hours a week this person is entitled to get £21.33 per week and £31.90 per week if they work more than 30 hours. This payment is for one year only and is for people returning to work from the New Deal 50 Plus.

A representative couple, therefore, working more than 30 hours per week, with two children and spending a certain amount in childcare costs will be entitled generally to: the basic element; the second adult element; 30 hour element; 70 per cent of childcare costs incurred (or up to 70 per cent of the maximum £300).

However, the amount received depends on their household income. The next section considers the child tax credit and then details how to calculate the working tax credit, given information on household income.

Child tax credit

Child tax credit is mainly for families on low (or middle) incomes who are responsible for one or more children, under 16 years old (or a child under 19 who studying full-time up to A-level). Those entitled to this benefit need to work at least 16 hours a week on average. The household's gross income should be below £50,000.

Note that the child tax credit can be granted in addition to the childcare element of the working tax credit. The main elements of the child tax credit are the family element and the child element, see Table B2. A family responsible for a child/children is entitled to get the family element. But in addition, a family can get £32.3 per week for each additional child (over one year). If the household has a child under the age of one, then this family will receive the family and baby addition element.

As with the working tax credit, the total amount granted on child tax credits depends on the household's total income.

Common thresholds on household income for working tax credit and child tax credit

As mentioned before, the maximum amount received on child and working tax credits is based on the number of hours worked and household income. Families with a

household income below £100.10 per week are entitled to the maximum amount as shown in Tables B1 and B2. Families with a household income above this first income threshold, will receive less with their award being reduced at the rate of 37p for every £1 of gross income over this threshold, see Table B3. This award is calculated using the following formula:

$$\text{Tax credit} = \text{maximum amount of child tax and working tax credits} - 37\% (\text{gross household income} - £100.10)$$

Families with gross household income above £ 958.9 per week will receive an award reduced at the rate of 0.67p for every £1 of gross income over this threshold income.

Child benefit

Child benefit is not income related and is a non-taxable benefit paid for children up to the age of 16 or up to 19 for those in full-time, non-advanced education. Table B4 shows the amount couples or lone parents are entitled to receive depending on the number of children they have.

There is a higher rate of benefit for the first child of £17.00 per week. Couples or lone parents receive £11.40 per week for each subsequent child.

Housing benefits

Housing benefit provides help to households in order to pay their rent. Housing and council tax benefit is calculated based on the following formula:

$$\text{Housing benefits} = \text{Eligible rent} - 65\%(\text{Net income} - \text{applicable amount})$$

where:

$$\text{Net income} = (\text{gross income} - \text{tax} - \text{earnings disregard}) + \text{child tax and working tax credits} + \text{child benefits}$$

and

$$\text{Applicable amount} = \text{Total personal allowances} + \text{Total premiums}$$

The applicable amount represents the minimum income the government thinks a person under certain situation needs to live on. This is made by two components; personal allowances and total premiums, depending on the particular circumstances of the household.

To calculate housing and council tax benefits it is necessary to take into account the household income and any other benefits received. The amount of housing and council tax benefits that a household receives also depends on the eligible rent and council tax paid.

To derive the total applicable amount, information from Table B5 is used and depends on the size of the family or type of household. For instance, if the family is a couple with two children then they are entitled to get £88.15 per week on personal allowances, but also £87.76 per week for both children under 16. In addition, families get the family premium (for couples) of £16.10 per week. There are additional earnings disregards.¹⁹ Earnings disregards are the part of the income not counted in the calculation of the income support. This means that any income received over the level of the disregard will result in getting less Income Support.²⁰ A single person gets £5 a week of standard disregard, £10 a week for couples and £25 a week for lone parents.

Council tax benefits

Single persons and certain other households qualify for a reduction in their council tax. On top of this some households qualify for council tax benefits.

Council tax benefits are granted to households to pay their council tax, mainly targeted at those on low income. The benefit is calculated as follows:

$$\text{Council Tax Benefit} = \text{Council Tax} - 20\% (\text{Net income} - \text{Applicable amount})$$

where: net income and applicable amount are the same as above.

Appendix C: Benefits And Tax Credits Methodology

In this section the calculation of benefits for six different representative types of households living in London are detailed.

Assumptions

The following households are assumed to have two children, a girl aged four years and a boy aged ten years.²¹ The six types of households considered are:

- 1) Couple parents: both parents working full-time (number of hours worked per week = 77 hours).
- 2) Couple parents: one earner working full-time and the other part-time (number of hours worked per week = 55.5 hours).
- 3) Couple parents: only one earner working full-time (number of hours worked per week = 38.5 hours).
- 4) Couple parents: only one earner working part-time (number of hours worked per week = 17 hours).
- 5) Lone parent: single mother/father working full-time (number of hours worked per week = 38.5 hours).
- 6) Lone parent: single mother/father working part-time (number of hours worked per week = 17 hours).

In addition, the following types of households, with no children, are considered:

- 7) Couple both working full-time (number of hours worked per week = 77 hours).
- 8) Couple: one earner working full-time and the other part-time (number of hours worked per week = 55.5 hours).
- 9) Couple: only one earner working full-time (number of hours worked per week = 38.5 hours).
- 10) Couple: only one earner working part-time (number of hours worked per week = 17 hours).
- 11) Single person: full-time (number of hours worked per week = 38.5 hours).
- 12) Single person: part-time (number of hours worked per week = 17 hours).

Individuals are assumed to earn the minimum wage of £4.85 per hour (although earnings and taxes for the above six types of households have been calculated for different wages).

Childcare costs

In the costs section, average childcare costs in London were assumed to be £4.30 per hour. Using this figure the amount spent in childcare costs for the above six type of households were calculated. The number of hours demanded for childminding for these types of household is assumed to be as follows:

Based on information in Tables B1, B2, B3, B4 and C1, GLA Economics calculated the child tax and working tax credits displayed in Table C1.

GLA Economics assumed that all these families paid £75 per week in rent and £21.25 in council tax. But it was assumed that lone parents are entitled to a 25 per cent discount in council tax, so they paid £15.8 per week.

Appendix D: Difference Between Disposable Income And LCA Budget Standard At Different Hourly Wages

This appendix sets out the difference between income and basic living costs at different hourly wages. Table D1 includes all relevant benefits and tax credits in the calculation, Table D2 excludes all means-tested benefits from the calculation.

Table D1: Earnings, taxes, benefits, disposable income and costs for different wages including benefits

	TWO PARENTS with two children				Single parent		Couple no children				Single Person	
	2ft	1ft 1pt	1ft	1pt	ft	pt	2ft	1ft 1pt	1ft	1pt	ft	pt
4.9												
Total disposable income	520.6	417.4	327.3	318.6	429.3	318.2	322.0	282.4	264.2	172.5	187.7	174.1
LCA Costs	501.5	411.2	308.2	308.2	434.1	343.8	317.0	317.0	309.1	309.1	188.7	188.7
Total disposable income minus LCA	19.1	6.2	19.1	10.4	-4.8	-25.5	5.0	-34.6	-44.9	-136.6	-1.0	-14.6
5.0												
Total disposable income	524.1	420.8	327.5	319.0	431.0	318.6	329.7	283.5	264.8	172.9	187.9	174.5
LCA Costs	501.5	411.2	308.2	308.2	434.1	343.8	317.0	317.0	309.1	309.1	188.7	188.7
Total disposable income minus LCA	22.5	9.5	19.3	10.8	-3.1	-25.2	12.8	-33.4	-44.3	-136.2	-0.8	-14.2
6.0												
Total disposable income	547.2	438.2	329.3	320.7	442.5	322.3	381.3	293.8	268.8	174.6	192.3	176.3
LCA Costs	501.5	411.2	308.2	308.2	434.1	343.8	317.0	317.0	309.1	309.1	188.7	188.7
Total disposable income minus LCA	45.6	26.9	21.1	12.5	8.5	-21.5	64.4	-23.2	-40.2	-134.5	3.6	-12.4
7.0												
Total disposable income	570.3	458.5	332.7	322.0	454.1	329.7	432.9	328.7	272.9	175.9	216.5	178.6
LCA Costs	501.5	411.2	308.2	308.2	434.1	343.8	317.0	317.0	309.1	309.1	188.7	188.7
Total disposable income minus LCA	68.7	47.3	24.5	13.8	20.0	-14.1	115.9	11.7	-36.2	-133.2	27.8	-10.1
8.0												
Total disposable income	593.4	478.6	342.0	323.3	465.6	338.2	484.5	369.3	277.8	177.2	242.2	180.8
LCA Costs	501.5	411.2	308.2	308.2	434.1	343.8	317.0	317.0	309.1	309.1	188.7	188.7
Total disposable income minus LCA	91.8	67.3	33.8	15.1	31.6	-5.6	167.5	52.3	-31.2	-131.9	53.6	-7.9

Notes: Incorporates changes in the Budget 2005

Source: GLA Economics own calculations

Table D2: Earnings, taxes, benefits, disposable income and costs for different wages, including only non-means-tested benefits

	TWO PARENTS with two children				Single parent		Couple no children				Single Person	
	2ft	1ft 1pt	1ft	1pt	ft	pt	2ft	1ft 1pt	1ft	1pt	ft	pt
4.9												
Total disposable income	350.4	271.8	189.4	110.9	189.9	111.4	322.0	243.4	161.0	82.5	161.0	82.5
LCA Costs	501.5	411.2	308.2	308.2	434.1	343.8	317.0	317.0	309.1	309.1	188.7	188.7
Total disposable income minus LCA	-151.2	-139.4	-118.8	-197.3	-244.1	-232.4	5.0	-73.5	-148.1	-226.6	-27.7	-106.2
5.0												
Total disposable income	358.1	278.3	193.3	113.4	193.8	114.0	329.7	249.9	164.9	85.0	164.9	85.0
LCA Costs	501.5	411.2	308.2	308.2	434.1	343.8	317.0	317.0	309.1	309.1	188.7	188.7
Total disposable income minus LCA	-143.4	-133.0	-114.9	-194.8	-240.3	-229.8	12.8	-67.1	-144.2	-224.1	-23.8	-103.7
6.0												
Total disposable income	409.7	316.2	219.1	125.5	219.6	126.1	381.3	287.8	190.7	97.1	190.7	97.1
LCA Costs	501.5	411.2	308.2	308.2	434.1	343.8	317.0	317.0	309.1	309.1	188.7	188.7
Total disposable income minus LCA	-91.8	-95.1	-89.1	-182.7	-214.5	-217.7	64.4	-29.2	-118.4	-211.9	2.0	-91.6
7.0												
Total disposable income	461.3	357.1	244.9	140.6	245.4	141.2	432.9	328.7	216.5	112.2	216.5	112.2
LCA Costs	501.5	411.2	308.2	308.2	434.1	343.8	317.0	317.0	309.1	309.1	188.7	188.7
Total disposable income minus LCA	-40.2	-54.1	-63.3	-167.5	-188.7	-202.6	115.9	11.7	-92.6	-196.8	27.8	-76.4
8.0												
Total disposable income	512.9	397.7	270.6	155.4	271.2	156.0	484.5	369.3	242.2	127.0	242.2	127.0
LCA Costs	501.5	411.2	308.2	308.2	434.1	343.8	317.0	317.0	309.1	309.1	188.7	188.7
Total disposable income minus LCA	11.4	-13.6	-37.5	-152.8	-162.9	-187.8	167.5	52.3	-66.8	-182.1	53.6	-61.7

Notes: Incorporates changes in the Budget 2005

Source: GLA Economics own calculations.

Appendix E: Income distribution approach

This appendix provides more detail about the Income Distribution approach. The Income Distribution approach considers what wage is required to move a household to an approximate point in the income distribution.

The DWP provides indicators on the average income of households. As noted in the main document we have considered after housing costs income only. From this data, the base, cost-adjusted figure for the median disposable weekly income of a household is £286²².

DWP uses a process called equivalence²³ which adjusts this median value of disposable income for different household types. The results of this equivalence are presented in Table E1.

Table E1: Equivalent incomes for different household types

Household composition	Equivalence ratio	Median cost adjusted disp income
<i>Couple no children</i>	1	£286
Head	0.55	157
Spouse	0.45	129
Other second adult	0.45	129
Third adult	0.4	114
Subsequent adults		0
Age of each dependent	0.07	20
0-1	0.18	51
2-4	0.21	60
5-7	0.23	66
8-10	0.26	74
11-12		

Source: GLA Economics based on data from DWP

By using the equivalence scale from Table E1, the required disposable income for the different types of household can be estimated. A family composed of a couple with two children in the 2-4 and 8-10 age brackets will be equal to 1.41 (0.61 + 0.39 + 0.18 + 0.23). That means a median income value of £403.

A common measure of relative poverty is taken to be 60 per cent of median income. Therefore, a broad but useful benchmark for relative poverty measure for our household types is to consider what earnings are necessary to reach this level of 60 per cent. A similar process could be used to estimate the wage required to achieve different income thresholds.

However, this process should be considered as a best-fit of the wage to a point on the income distribution. It provides a rough indication of the hourly wage households need to achieve to reach a certain income threshold.

To estimate the wage, hourly wage is reiterated to discover how much is needed to meet a 60 per cent, 65 per cent and 70 per cent level of median household income after housing costs.

Table E2 shows the level of income for the different household types after using the equivalisation factors set out in Table E1. It also shows the wage that would be

required, after accounting for all tax and benefits, to achieve the 60 per cent of median disposable income threshold.

Table E2 shows that a couple with two children in the 2-4 and 8-10 age brackets, have an income of around £242 per week (at the 60 per cent of median income threshold). If both parents worked full-time then the wage required to reach this level of income would be £4.85 per hour (after accounting for all tax credits and benefits). Similarly, a single person with no children at the 60 per cent of median income threshold has an income of around £94 per week. The minimum wage of £4.85 per hour is sufficient for this person to reach this income assuming the person works full-time.

Table E2: Incomes for different types of families , (£ 2002/03), including benefits in disposable income

Household type	Weekly income	Equivalent hourly wage			
		2ft	1ft1pt	1ft	1pt
60% of median (Relative poverty measure)					
With two children aged 2-4 and 8-10					
1) Couple parents	241.96	4.9*	5.2	7.9	-
2) Lone parent	164.74	NA	NA	5.2	8.8
With no children					
1) Couple	171.60	5.3	7.4	11.9	-
2) Single person	94.38	NA	NA	4.9*	-
65% of median					
With two children aged 2-4 and 8-10					
1) Couple parents	262.12	5.5	6.4	9.7	-
2) Lone parent	178.46	NA	NA	6.3	11.5
With no children					
1) Couple parents	185.90	5.5	7.7	12.5	-
2) Single person	102.25	NA	NA	6.0	-
70% of median					
With two children aged 2-4 and 8-10					
1) Couple parents	282.28	6.4	7.3	11.4	-
2) Lone parent	192.19	NA	NA	7.5	14.2
With no children					
1) Couple	200.20	5.8	8.1	13.0	-
2) Single person	110.11	NA	NA	6.4	-

Notes: Includes self-employed. ft = full-time, pt= part-time. * Minimum wage is sufficient to achieve the income threshold.

Source: Department for Work and Pensions HBAI and GLA Economics's own calculations

Appendix F: Distribution of hourly wage by gender and full-time and part-time work in London

This appendix provides detail of the wage distribution in London. All data is from the Labour Force Survey.

Figure F1: Total full-time employees in London

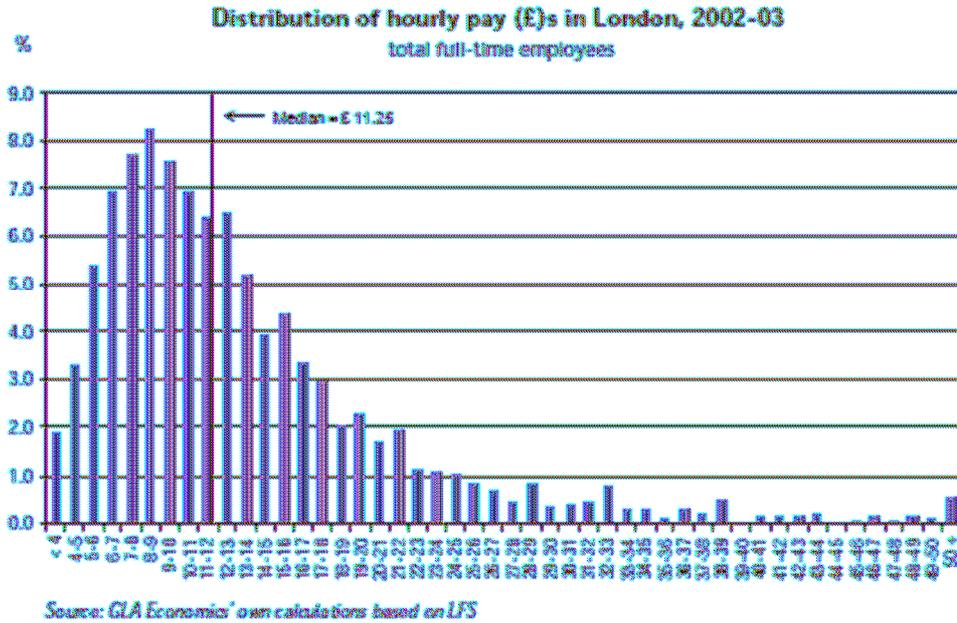


Figure F4: Total part-time employees in London



Figure F5: Female employees in London

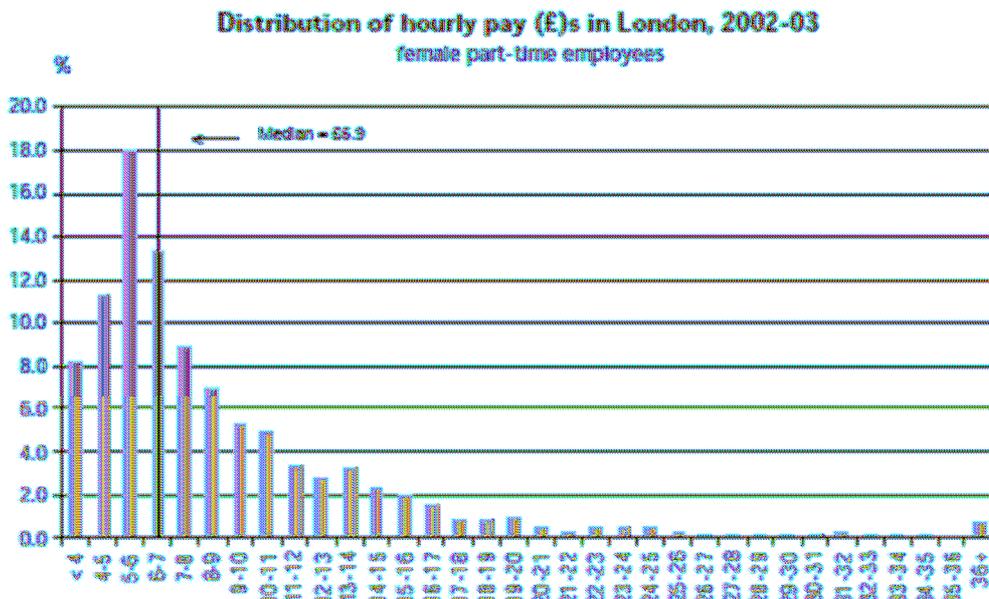
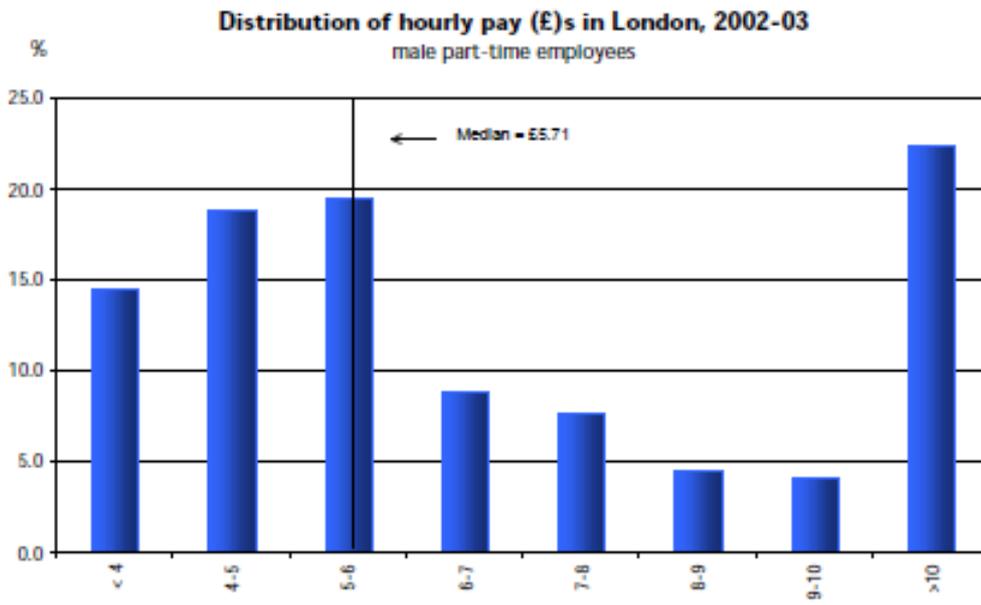


Figure F6: Male employees in London



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Abbreviations

CIPFA	Chartered Institute of Public Finance and Accountancy
DWP	Department for Work and Pensions
FBU	Family Budget Unit
GLA	Greater London Authority
LCA	Low Cost but Acceptable
LFS	Labour Force Survey
NES	New Earnings Survey
ODPM	Office of the Deputy Prime Minister
ONS	Office for National Statistics

¹ The LCA budget standard was produced following work in 1997/98 by the FBU then based in the Department of Nutrition and Dietetics in King's College London. The funding for the work was raised by the Zacchaeus 2000 Trust. The work was based on two model families – a two adult household with two children aged ten and four and a one adult household with two children aged ten and four. The first study was carried out in York with later studies being carried out in East London, Swansea and Brighton.

² H Parker, *Low Cost but Acceptable. A minimum income standard for the UK: Families with young children*, London: Zacchaeus Trust, 1998

³ It should be noted that Telco, which uses the LCA approach in its living wage calculations, argues that the living wage should be calculated without considering 'means-tested' benefits.

⁴ The calculation of housing costs in London is complex. In this first report as a simplifying assumption, it has been assumed that all low-income families with children live in social housing. This is a significant oversimplification of housing costs and will be refined by the living wage unit.

⁵ It should be noted that the FBU state that these 'standard costs' tend not to vary by region. However, the costs are uprated here on the assumption that certain shopping costs will, in fact, be higher in London.

⁶ A Harding and R Percival, *The Private Costs of Children in 1993-1994*, *Family Matters* No. 54, Spring/Summer 1999

⁷ Following the Low Pay Commission's recommendations the national minimum wage (adult rate) will increase from £4.85 to £5.05 an hour from October 2005 and, subject to the Low Pay Commission's review early next year, to £5.35 from October 2006. The youth rate, for workers aged between 18 and 21, will also rise, from £4.10 to £4.25 from October 2005 and to £4.45 from October 2006.

⁸ See the DWP's website: <http://www.dwp.gov.uk/asd/hbai/hbai2003/chapters.asp>

⁹ See Appendix 2, Department for Work and Pensions:

<http://www.dwp.gov.uk/asd/hbai/hbai2003/contents.asp>.

¹⁰ It should be noted that this measure does not take into account childcare costs.

¹¹ In effect, given the disposable income the wage is varied until, after accounting for all tax and benefits, the disposable income is achieved. It should be noted that this calculation should be considered as an approximation of the wage to the income level only. This is because there are a number of factors that inhibit an exact comparison between the DWP disposable income figures and GLA Economics income figures after accounting for the tax and benefit system. Future work of the Living Wage Unit will focus on this issue.

¹² It should be noted that similar results have been found in other studies using the basic living costs (LCA) approach. For instance, a study in Brighton in 2003 found that assuming the three household

types considered in that study claimed all relevant benefits and tax credits, the minimum wage was sufficient to cover basic living costs. See: LCA wage levels and the 'exported costs' of low pay in Brighton and Hove, University of Brighton, May 2003.

¹³ Data from the New Earnings Survey (NES) could also be used but the NES is not generally thought to be particularly effective at low income levels.

¹⁴ The weighted mean takes into account the different number of (three-bedroom) council houses in each borough, and weights the average by this number. The unweighted mean is a simple average of all boroughs for which data is available.

¹⁵ <http://www.dataspring.org.uk/index1.htm>

¹⁶ From the Daycare Trust. See www.daycaretrust.org.uk/

¹⁷ "The Child and Working Tax Credits: Modernisation of Britain's Tax and Benefit System, number ten, April 2002.

¹⁸ Tax Benefit Model Tables, April 2004, Department for Work and Pensions and National Statistics.

¹⁹ These disregards are designed to achieve a balance between encouraging people to undertake part-time work and remaining in the labour market without creating disincentives to full-time work.

²⁰ www.jobcentreplus.gov.uk

²¹ GLA Economics followed the same assumptions as considered in publications by the Family Budget Unit.

²² See DWP HBAI Table C
http://www.dwp.gov.uk/asd/hbai/hbai2003/pdf_files/supplementary_tables/sutable_c_hbai04.PDF

²³ See Appendix 2, Department for Work and Pensions
<http://www.dwp.gov.uk/asd/hbai/hbai2003/contents.asp>