ARTICLE

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Regional Gross Disposable Household Income

SUMMARY

This article presents analysis of Regional Gross Disposable Household Income (GDHI) at current basic prices, published in March 2010 by the Office for National Statistics (ONS). These data are published using the European Union Nomenclature of Units for Territorial Statistics (NUTS) regions.

Data are published for the NUTS1, NUTS2 and NUTS3 levels for the period 1995 to 2008. All values are at current prices which means that the effects of price inflation and regional price levels are not removed. UK values referred to within this article exclude Extra-Region, defined as parts of the UK economic territory whose income cannot be assigned to any particular region.

An **Annex** to this article provides further information on definitions and methodology relating to GDHI.

Introduction

This analysis explores various aspects of Regional Gross Disposable Household Income (GDHI). The generation of GDHI by region, sub-region and local area is compared with national (UK) performance, in the context of £ million, £ per head and per head index variables. Analysis of GDHI components is also included along with an examination of variance within NUTS levels. The article focuses on regional performance but also considers changes over time.

GDHI represents the amount of money left available within the household sector for spending or saving, after expenditure associated with income, for example, taxes and social contributions, property ownership and provision for future pension income. It is calculated gross of any deductions for capital consumption. The Annex outlines the

methodology used to derive GDHI figures. The article concludes with ONS's future plans for regional accounts data.

NUTS1 (regional)

Table 1 shows GDHI per head of population for the UK as a whole was £14,872 in 2008. London had the highest GDHI per head at £19,038. The South East and East of England were also above the UK value at £16,792 and £15,509 respectively. All other regions had a GDHI per head below the UK value. The North East and Wales had the lowest GDHI per head, at £12,543 and £13,073 respectively (see **Map 1**).

Figure 1 shows that London and the South East had the largest shares of total GDHI in 2008, 15.9 per cent and 15.4 per cent respectively. Northern Ireland and the North East had the smallest shares, 2.6 per cent and 3.5 per cent respectively.

Table 1
GDHI per head: by NUTS 1 region, 2008

Region	GDHI per head (£)	GDHI per head growth on 2007 (per cent)	GDHI per head index (UK=100)	Total GDHI ¹ (£m)	Total GDHI growth on 2007 (per cent)	Share of UK total GDHI (per cent)
United Kingdom ²	14,872	3.9	100.0	912,907	4.6	100.0
North East	12,543	4.2	84.3	32,305	4.6	3.5
North West	13,386	4.0	90.0	92,041	4.2	10.1
Yorkshire and The Humber	13,115	3.1	88.2	68,371	3.8	7.5
East Midlands	13,611	3.3	91.5	60,340	4.1	6.6
West Midlands	13,337	3.8	89.7	72,167	4.4	7.9
East of England	15,509	3.0	104.3	88,843	4.2	9.7
London	19,038	4.5	128.0	145,068	5.3	15.9
South East	16,792	3.9	112.9	140,720	4.8	15.4
South West	14,680	3.7	98.7	76,471	4.3	8.4
England	15,090	3.8	101.5	776,325	4.5	85.0
Wales	13,073	4.1	87.9	39,132	4.5	4.3
Scotland	14,301	4.7	96.2	73,914	5.2	8.1
Northern Ireland	13,260	3.7	89.2	23,536	4.6	2.6

Notes:

- 1 Figures may not sum to totals as a result of rounding.
2 Excludes Extra-Region (please refer to Annex).

Source: ONS, Regional GDHI, March 2010

Figure 2
GDHI per head indices: by NUTS1 region, 1995 and 2008

Index, UK = 100

Source: ONS, Regional GDHI, March 2010

Figure 3
GDHI per head growth: by NUTS1 region, 2007 and 2008

Percentages

Source: ONS, Regional GDHI, March 2010

Population share exceeded GDHI share in every region except for London, the South East and East of England. The South East had the largest share of population with 13.7 per cent.

Between 1995 and 2008, London, the

South East, Scotland and Northern Ireland were the only regions where per head indices increased. All other NUTS1 per head indices fell over this period. **Figure 2** shows London had the highest GDHI per head index in 2008, 28.0 points greater than

the UK value, an increase of 7.3 points from 1995. The North East had the lowest index value, 15.7 points below the UK and a decrease of 2.9 points from 1995. This was followed by Wales and Yorkshire and The Humber, at 12.1 and 11.8 index points below the UK respectively.

Figure 3 shows annual growth in GDHI per head in 2007 and 2008. The rate of growth increased across all regions except Northern Ireland, where growth slowed slightly from 3.8 per cent in 2007 to 3.7 per cent in 2008. The largest increase in the rate of growth occurred in the North East, from 2.1 per cent in 2007 to 4.2 per cent in 2008. The strongest growth in 2007 was London at 4.0 per cent and Scotland had the strongest growth in 2008 at 4.7 per cent.

NUTS2 (sub-regional)

Table 2 shows Inner London had the highest household income per head at £22,135 in 2008, while the West Midlands had the lowest at £12,097. In 2008, 14 of the 37 NUTS2 sub-regions were above the UK level (see **Map 2**), including all those within London and the South East. All sub-regions within the North East, East Midlands, Wales and Northern Ireland were below the UK level.

Of the 37 NUTS2 sub-regions, Highlands and Islands showed the highest growth from 2007 in GDHI per head of 5.8 per cent. Lincolnshire showed the lowest growth in GDHI per head of 2.3 per cent.

Outer London had the largest share of total GDHI with 8.5 per cent followed by Inner London with 7.3 per cent. Highlands and Islands had the lowest share of total GDHI with 0.6 per cent.

Map 1

Gross Disposable Household Income per head: by NUTS 1 area, 2008

Source: ONS, Regional GDHI, March 2010

Table 2

GDHI per head, top five and bottom five: by NUTS2 sub-region, 2008

Sub-region	GDHI per head (£)	GDHI per head growth on 2007 (per cent)	GDHI per head index (UK=100)	Total GDHI ¹ (£m)	Total GDHI growth on 2007 (per cent)	Share of UK total GDHI (per cent)
United Kingdom ²	14,872	3.9	100.0	912,907	4.6	100.0
Top five GDHI per head						
Inner London	22,135	5.3	148.8	67,062	6.3	7.3
Surrey, East and West Sussex	18,168	4.1	122.2	48,284	4.9	5.3
Berks, Bucks and Oxon	17,710	3.4	119.1	38,991	4.5	4.3
Bedfordshire and Hertfordshire	17,212	3.3	115.7	28,930	4.5	3.2
Outer London	16,994	3.8	114.3	78,006	4.6	8.5
Bottom five GDHI per head						
Northumberland and Tyne and Wear	12,741	4.3	85.7	17,894	4.7	2.0
West Wales and The Valleys	12,656	4.2	85.1	24,023	4.6	2.6
South Yorkshire	12,482	3.1	83.9	16,301	3.6	1.8
Tees Valley and Durham	12,306	4.0	82.7	14,411	4.6	1.6
West Midlands	12,097	3.9	81.3	31,688	4.6	3.5

Notes:

- Figures may not sum to totals as a result of rounding.
- Excludes Extra-Region (please refer to Annex).

Source: ONS, Regional GDHI, March 2010

Figure 4
GDHI per head: by NUTS2 sub-region, 1995 and 2008

Source: ONS, Regional GDHI, March 2010

Figure 5
GDHI per head indices, five largest decreases and five largest increases: by NUTS2 sub-region, 1995–2008

Source: ONS, Regional GDHI, March 2010

Figure 4 compares sub-regional GDHI per head in 1995 with 2008 values. Each data point represents a NUTS2 sub-region.

In 1995, the GDHI per head of Inner London at £11,283 was similar to other

sub-regions, but by 2008 the Inner London figure at £22,135 was significantly higher than the other sub-regions. Similarly, North Eastern Scotland has increased from £9,200 in 1995 to £16,684 in 2008.

Between 1995 and 2008, 12 of the 37 NUTS2 sub-regions increased their index value. **Figure 5** illustrates that Inner London had the largest increase of 18.6 points, followed by North Eastern Scotland with an increase of 6.0 points from 1995. Lincolnshire shows the largest decrease of 8.0 index points, followed by West Midlands which decreased by 5.8 points.

NUTS3 (local area)

In 2008 of the 133 NUTS3 local areas, 38 were above the UK value at £14,872 per head (see **Map 3**). **Table 3** shows the highest GDHI per head in 2008 was Inner London – West at £30,672, followed by Surrey and Buckinghamshire CC at £20,960 and £20,168 respectively. Nottingham at £10,361 had the lowest GDHI per head, followed by City of Kingston upon Hull and Blackburn with Darwen at £10,553 and £10,880 respectively.

Of the 133 NUTS3 local areas, Orkney Islands showed the highest growth from 2007 in GDHI per head of 7.1 per cent. Swindon showed the lowest growth in GDHI per head of 1.9 per cent.

Figure 6 shows the five highest and five lowest increases in GDHI per head between 1995 and 2008. Over this period 49 of the 133 NUTS3 local areas exceeded the UK increase of 71.6 per cent. The North of Northern Ireland showed the highest increase at 99.0 per cent, followed by Inner London – West at 98.4 per cent. Sefton at 45.8 per cent showed the lowest increase over this period.

Between 1995 and 2008, 49 of the 133 NUTS3 sub-regions increased their index value. **Figure 7** illustrates that Inner London – West had the largest increase of

Map 2

Gross Disposable Household Income per head: by NUTS 2 area, 2008

Source: ONS, Regional GDHI, March 2010

Table 3

GDHI per head, top five and bottom five: by NUTS3 local area, 2008

Local Area	GDHI per head (£)	GDHI per head growth on 2007 (per cent)	GDHI per head index (UK=100)	Total GDHI ¹ (£m)	Total GDHI growth on 2007 (per cent)	Share of UK total GDHI (per cent)
United Kingdom ²	14,872	3.9	100.0	912,907	4.6	100.0
Top five GDHI per head						
Inner London - West	30,672	5.4	206.2	34,235	6.3	3.8
Surrey	20,960	3.7	140.9	23,259	4.8	2.5
Buckinghamshire CC	20,168	4.0	135.6	9,948	4.6	1.1
Hertfordshire	18,752	3.4	126.1	20,222	4.6	2.2
Outer London - West and North West	18,175	3.7	122.2	32,409	4.4	3.6
Bottom five GDHI per head						
Leicester	11,217	4.2	75.4	3,306	5.0	0.4
Portsmouth	11,102	3.3	74.6	2,220	4.5	0.2
Blackburn with Darwen	10,880	4.6	73.2	1,531	4.5	0.2
Kingston upon Hull, City of	10,553	2.9	71.0	2,730	3.6	0.3
Nottingham	10,361	2.8	69.7	3,029	4.1	0.3

Notes:

- Figures may not sum to totals as a result of rounding.
- Excludes Extra-Region (please refer to Annex).

Source: ONS, Regional GDHI, March 2010

Figure 6

GDHI per head, five lowest and five highest percentage increases: by NUTS3 local area, 1995–2008

Source: ONS, Regional GDHI, March 2010

Figure 7

GDHI per head indices, five largest decreases and five largest increases: by NUTS3 local area, 1995–2008

Source: ONS, Regional GDHI, March 2010

27.8 index points, followed by North of Northern Ireland at 11.3 points. Sefton had the largest decrease of 16.4 index points.

Component analysis (NUTS2) GDHI data

Compensation of employees (CoE) is the remuneration, in cash or kind, received by employees in the household sector. It is the largest component of the primary resource element of GDHI (see the aAnnex). **Figure 8** illustrates percentage changes in CoE per head.

Between 1995 and 2008, the CoE per head of 14 of the 37 sub-regions increased at a rate of growth exceeding the UK growth rate of 84.3 per cent. Inner London had the highest

Map 3

Gross Disposable Household Income per head: by NUTS 3 area, 2008

Source: ONS, Regional GDHI, March 2010

Figure 8

Compensation of employees (CoE) per head, five lowest and five highest percentage increases: by NUTS2 sub-region, 1995–2008

Source: ONS, Regional GDHI, March 2010

Figure 9

Social benefits per head, five lowest and five highest percentage increases: by NUTS2 sub-region, 1995–2008

Source: ONS, Regional GDHI, March 2010

increase of 151.4 per cent, while the West Midlands had the lowest of 65.2 per cent.

Social benefits are the main component of secondary resources (income for households following redistribution) and include social security benefits, privately funded benefits, unfunded social benefits and social assistance in cash. In 2008 social benefits worth £247 billion were distributed nationally.

Figure 9 illustrates the percentage change in social benefits per head between 1995 and 2008. Over this period 21 of the 37 NUTS2 sub-regions increased at a rate of growth exceeding the UK growth of 69.4 per cent. Highlands and Islands had the highest percentage increase at 87.1 per cent, while Inner London showed the lowest increase of 34.5 per cent.

This section highlights fluctuation in the contribution of CoE and social benefits to NUTS2 total resource between 1995 and 2008. The top and bottom five changes in CoE and social benefits as a share of sub-regional total resource are reflected in Figure 10 and Figure 11 respectively.

The largest fluctuation in the contribution of both CoE and social benefits to overall resource is apparent in Inner London, where CoE contributed 51.9 per cent towards total resource of this region in 1995 and 61.1 per cent in 2008. This is reflected in Figure 10, as an increased share of 9.2 percentage points. In contrast, social benefits contributed 15.9 per cent towards the total resource of Inner London in 1995 and 10.0 per cent in 2008. This is reflected

in Figure 11 as a reduced share of 5.9 percentage points.

Variation within region, sub-region and local area

Figure 12 illustrates the variation to be found within regions. The range of NUTS3 local area GDHI per head within NUTS1 regions is shown for 2008. The highest and lowest GDHI per head values in each region are highlighted. London has the highest amount of variation, ranging from Outer London – East and North East at £15,191 to Inner London – West at £30,672. The region with the least variation is Northern Ireland, ranging between North of Northern Ireland at £12,269 and Outer Belfast at £14,322.

Over time there can be a general

Figure 10

CoE, five largest and five smallest changes in share of total resources: by NUTS2 sub-region, 1995–2008

Source: ONS, Regional GDHI, March 2010

Figure 11

Social benefits, five largest and five smallest changes in share of total resources: by NUTS2 sub-region, 1995–2008

Source: ONS, Regional GDHI, March 2010

divergence in household income between areas within the same NUTS region.

Figure 13 shows divergence in the rates of growth in GDHI per head of the two NUTS3 local areas within the North Yorkshire NUTS2 sub-region.

Between 1998 and 2002 the NUTS3 local areas converged as York experienced higher growth than North Yorkshire CC. Between 2002 and 2006 this trend reversed as both local areas diverged from the sub-regional rate of growth, primarily due to a slow down in the rate of growth for York in 2003 and 2004.

Revisions

The GDHI estimates published in March 2010 include some revisions to earlier published estimates for the period 1995 to 2007.

The main reasons for revisions are:

- revisions to the UK National Accounts (*Blue Book* 2009), which go back to 2004
- replacing provisional estimates with actual data

Future work plans

ONS plans to publish regional GVA for 1989 to 2009 at the NUTS1 level and 1995 to 2008 at NUTS2 and NUTS3 in December 2010. These data will be consistent with the National Accounts *Blue Book* 2010.

Figure 12

GDHI per head: NUTS3 variations within NUTS1 regions, 2008

Source: ONS, Regional GDHI, March 2010

Figure 13

GDHI per head: NUTS3 variation within NUTS2 sub-region, 1995–2008 Source: ONS, *Regional GDHI*, March 2010

It is also planned to publish regional GDHI estimates at the NUTS1, 2 and 3 levels from 1995 to 2009 (consistent with the National Accounts *Blue Book* 2010) in March 2011.

ONS is currently developing experimental estimates of real regional GVA (that is, with effects of inflation removed), using a production approach, at the NUTS1 level.

Notes

1. The full Regional Accounts Gross Disposable Household Income publication can be accessed on the ONS website at:
www.statistics.gov.uk/statbase/product.asp?vlnk=14651
2. The full Regional Accounts Gross Value Added publication can be accessed on

the ONS website at:
www.statistics.gov.uk/statbase/product.asp?vlnk=14650

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West B (2010) 'Regional Gross Value Added', *Economic & Labour Market Review* vol 4, no 6, pp 35–46

ANNEX**Gross Disposable Household Income – definitions and methodology**

Gross Disposable Household Income (GDHI) is the amount of money that the household sector has available for spending or saving, after expenditure associated with income.

The household sector covers people living in traditional households as well as those living in institutions (for example retirement homes and prisons). The sector also includes sole trader enterprises and non-profit institutions serving households (NPISH). Examples of the latter include charities and most universities.

It is calculated gross of any deductions for capital consumption. Consumption represents the amount of fixed assets used up (during the period under consideration) as a result of normal wear and tear and foreseeable obsolescence.

Calculating GDHI

$GDHI = \text{Balance of the primary income account} + \text{Balance of the secondary income account}$

The Primary Income Account

Primary incomes are those arising as part of the production process or through the ownership of assets required for production. The balance of primary income is the difference between total primary resources and uses.

Primary resources**Operating surplus & mixed income**

The operating surplus in the household sector account relates to the sector's rental income from buildings, including the imputed rental of owner occupied dwellings. Mixed income of the household sector comprises income from self-employment.

Compensation of employees

The remuneration, in cash or in kind, received by employees (from employers) as payment for the services of labour. Within GDHI the CoE component includes wages and salaries paid to UK residents working abroad less wages and salaries paid to non-residents working in the UK. This differs from the calculation of CoE for GVA.

Property income received

Income from the ownership of financial assets and tangible non-produced assets. This includes interest receipts, distributed income of corporations, property income attributed to insurance policyholders and returns from the ownership of land (rent).

It specifically excludes income from the ownership of buildings (rental) – see operating surplus.

Primary uses**Property income paid**

This comprises interest paid on mortgages and other borrowings and rent on land. The latter relates mainly to agricultural land.

The Secondary Distribution of Income Account

This account shows how primary incomes are redistributed through the payment of taxes, social contributions, benefits and net current transfers. The balance of secondary income is derived as the difference of total secondary resources less uses.

Secondary resources**Imputed social contributions**

Contributions paid directly by employers to their current employees and/or former employees, as well as other eligible persons. These payments do not involve social security funds, insurance enterprises, autonomous pension funds or the like.

Social benefits other than social transfers in kind

These comprise of social security benefits in cash, privately funded benefits, unfunded social benefits and social assistance in cash. They exclude reimbursements from social security funds for households to purchase goods and services.

Other current transfers

These include non-life insurance claims, which correspond with net non-life insurance premiums on the uses side of the allocation of secondary income account. Miscellaneous current transfers consist of a variety of transfers to the household sector from the rest of the world (such as gifts), NPISH (such as grants) and central government.

Secondary uses

Current taxes on income and wealth

Compulsory, unrequited payments made by the household sector to the government sector. The main examples in the UK household sector are income tax, council tax and vehicle excise duty.

Social contributions/Social benefits

Social benefits paid and social contributions made by the household sector are grouped together. Social contributions are made by individuals to social insurance schemes and pensions, to make provisions for social benefits and retirement income. The payments may be made by employers on behalf of their employees, or by employees, the self-employed and the non-employed, on their own behalf.

Other current transfers

On the uses side of the secondary income account, these include non-life insurance premiums and miscellaneous current transfers. The former mainly cover property, motor vehicle and health insurance and are calculated net of the service charges for administering the scheme and separate from any employer or government scheme. Estimates correspond with net non-life insurance claims on the resources side of the secondary income account. Miscellaneous current transfers include payments of court fines, certain government fees and transfers to and from the rest of the world.

For comprehensive information about the individual components and their definitions please see the European System of Accounts 1995 (ESA95), available on the Eurostat website: <http://epp.eurostat.ec.europa.eu>

Regional classification

Regional GDHI estimates are produced at three geographical levels in the UK, based upon the Nomenclature of Units for Territorial Statistics (NUTS). This provides a uniform breakdown for the production of regional statistics for the European Union:

- NUTS1: the devolved administrations of Scotland, Wales and Northern Ireland and the Government Office Regions (GORs) of England
- NUTS2: 37 sub-regions – mainly groups of counties and unitary authorities
- NUTS3: 133 local areas – generally groups of unitary authorities or districts
- Extra-Region GDHI is that which cannot be assigned to any region, such as the GDHI of embassies and UK armed forces stationed overseas.

GDHI production

Regional GDHI estimates are published annually for the period 1995 to t-2 years (t being the year of publication) and are consistent with the National Accounts *Blue Book*. Component estimates are published at the NUTS1 and NUTS2 levels and the balances of primary and secondary incomes are published for NUTS3 local areas.

Regional GDHI estimates are initially produced at NUTS3 level and aggregated up to obtain NUTS2 and NUTS1 estimates. These estimates are on a residence basis (incomes of individuals are allocated to the region in which they live rather than where they work).

The data referenced in this article are headline figures calculated using a five-period moving average. These adjusted figures remove some year-on-year volatility caused by sampling and non-sampling errors in the data sources.

Regional GDHI estimates are produced at current basic prices, so the effects of inflation and regional price levels are not removed from these data.

Per head data enable comparison of regions of different sizes. It takes account of the entire population of regions, sub-regions and local areas.

Data sources

The data are allocated at the regional level using the most appropriate indicators. The main datasets used to calculate regional GDHI are:

- HMRC wages and salaries
- HMRC self-assessment tax and Survey of Personal Incomes (SPI)
- Other HMRC taxes data
- Various benefit datasets

Data from these sources are used as indicators to apportion the National Accounts household accounts components using methods consistent with the guidance set out in the European System of Accounts 1995 (ESA95). All the input data are subject to a rigorous quality assurance process to ensure that they are the best indicators available.