

Employment of Foreign Workers: Focus on Earnings

This article presents estimates of median earnings for migrants (defined as people born outside the UK), and compares them to people born in the UK, using the Labour Force Survey (LFS). Alternative definitions for migrants are considered by Clancy (2008).

All the estimates are provided using median gross weekly earnings for full-time employees who are resident in the UK. People working part-time are excluded from the analysis to ensure consistency. However, this means that estimates are not presented for all employees. The methodology and sources are explained in **Box 2**, at the end of the article.

The analysis shows that:

- For those countries and country groups analysed, in 2008, earnings were lowest for people born in the EUA8 (see **Box 1**) and highest for those born in the United States of America.
- Between 1998 and 2005, the earnings for all non-UK born employees are higher than all UK born employees, after which UK born earnings are higher than

earnings of non-UK born employees.

- The earnings for non-UK born people in Managerial and Professional occupations are consistently higher than earnings of their UK born counterparts. Whereas, UK born earnings are higher than non-UK born earnings in Sales, Process, Plant and Machine Operatives and Elementary Occupations.
- Fifty eight per cent of the non-UK born employees that arrived in the UK between 2001 to 2008 are employed in occupations with earnings below the median for all workers.

Box 1

Country groups

'EU14' refers to: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Sweden and Spain.

'EUA8' refers to: the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

- Sixty four per cent of the non-UK born employees that arrived during the period 2004 to 2008 hold 'no' or 'other' (not classified by LFS) qualifications. Most of these workers are employed in the lower paid occupations, which helps explain why, after 2005, the earnings of non-UK born employees are lower than UK born employees.
- The earnings distributions presented in section 3 of this article show how the percentage of UK and non-UK born full-time employees' earnings by wage bands has changed over the period 2001 to 2008. They also show that there has been a shift of the UK earnings distribution relative to Non-UK earnings over the period.

Introduction

This article is part of a series of migration themed articles, and adds to the analysis provided by the ONS. One aspect of interest in migrant workers is their impact on overall earnings in the UK.

The EUA8 countries (see Box 1) gained membership to the EU in 2004.

Employment of EUA8 born people, resident in the UK then increased from 97,000 in 2004 to 516,000 in 2008. This

change in the labour market had the potential to influence UK and non-UK born earnings. However, the diversity of all foreign born employees, in terms of education, occupation and skills, determines whether they complement, or compete with the existing UK labour supply. This then determines the impact on earnings, either overall, or a particular occupation group.

1. Earnings by grouped country of birth

This section looks at the median gross weekly earnings of full-time employees by grouped country of birth.

Table 1 presents the median gross weekly earnings of people by grouped country of birth. In 1998 and 2003, people born in the United States of America (USA) had the highest median earnings. The lowest earnings, at these dates, were for people born in Pakistan or Bangladesh.

Table 1: Median gross weekly earnings¹ for full-time employees, by country of birth for country groups.
United Kingdom, July to September

	(£s - not seasonally adjusted)									
	Total ²	UK	EU14 ³	EUA8 ⁴	USA	Africa ex SA	South Africa	Australia & New Zealand	India	Pakistan & Bangladesh
1998	300	298	290	279	442	346	323	392	298	200
2003	360	356	392	420	635	404	430	529	400	250
2008	436	438	510	290	635	415	485	577	423	292

Source: Labour Force Survey

Notes:

¹Earnings estimates are provided using the GRSSWK variable, which provides estimates of gross weekly earnings including overtime

² Includes people who did not state their country of birth.

³Austria, Belgium, Denmark, Finland, France, Germany, Greece, Holland, Italy, Luxembourg, Portugal, Republic of Ireland, Spain (including the Canary Islands), Sweden.

⁴Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia.

Gross weekly earnings data are known to be underestimated in the LFS. This is principally because of proxy responses.

In Jul-Sept 2008, employees born in the USA and in Australia or New Zealand had the highest earnings: £635 and £577 respectively. The people born in these countries were more likely to be working in the 'higher paid' occupations, 67 per cent of USA born and 72 per cent of Australian and New Zealand born. The lowest earnings were for employees born in the EUA8 and Pakistan and Bangladesh: £290 and £292 respectively. The employees born in these countries were more likely to be working in Process, Plant and Machine Operatives and Elementary Occupations, with 59 and 44 per cent, respectively, of people employed in these occupations. The earnings for these occupations were amongst the lowest in Jul-Sept 2008; for non-UK born employees in Elementary Occupations the median weekly earnings was £270.

2. Earnings of UK and Non-UK born employees from 1998 to 2008.

Table 2 shows earnings for UK and non-UK born employees over the last ten years.

Table 2: Median gross weekly earnings¹ for UK and non-UK born full-time employees by country of birth
United Kingdom, July to September

	(£s - not seasonally adjusted)		
	UK	Non-UK ²	All ³
1998	298	325	300
1999	308	340	308
2000	323	369	325
2001	338	385	342
2002	350	387	351
2003	356	404	360
2004	369	404	375
2005	392	415	394
2006	404	385	404
2007	421	402	416
2008	438	415	436

Source: Labour Force Survey

Notes:

¹ Earnings estimates provided using the GRSSWK variable, which provides estimates of gross weekly earnings including overtime.

² Does not include people who did not state their country of birth.

³ Includes people who did not state their country of birth. Gross weekly earnings data are known to be underestimated in the LFS. This is principally because of proxy responses.

Estimates of weekly earnings are higher for non-UK born employees compared to UK born, for the years 1998 to 2005. From 2006, non-UK born employees had lower weekly earnings on average than UK born employees. To investigate this further, the following characteristics were looked at in detail: (i) age; (ii) occupation; (iii) qualifications held; and (iv) year of arrival in the UK.

Age

Table 3 shows the estimates for median weekly earnings for UK and non-UK born full-time employees by age. The earnings of employees aged 18 to 24 were higher for non-UK born for all years up to 2005 except 1999 and 2005. In 2006, non-UK born earnings were lower than UK born employees, but this trend was reversed for the most recent years with non-UK born again having higher earnings for those aged 18 to 24.

The difference in median earnings between UK and non-UK born people reduced over the period.

The earnings for those aged 25-34 (the largest group of non-UK born employees for the period since 2006) follows the same pattern as described for Table 2. Before 2006, the earnings of non-UK born employees were clearly higher than UK born, but after 2006, UK born earnings were noticeably higher than non-UK born.

For employees aged 35 to 49, the largest employment group for UK born, the earnings for non-UK born employees have been higher than or equal to UK born earnings for all years up to 2008. In 2008 the earnings for UK born are higher than non-UK born for the first time.

Table 3: Median gross weekly earnings¹ for UK/ Non-UK² born full-time employees by age.
United Kingdom, July to September

	(£s - not seasonally adjusted)							
	18 - 24		25 - 34		35 - 49		50 - 64 (M)	50 - 59 (F)
	UK	Non-UK ²	UK	Non-UK ²	UK	Non-UK ²	UK	Non-UK ²
1998	194	223	308	346	346	346	300	312
1999	202	200	322	358	356	356	325	350
2000	213	238	337	385	371	395	332	371
2001	230	237	350	413	385	423	346	346
2002	231	277	369	404	412	423	364	381
2003	235	269	381	423	415	438	370	385
2004	240	297	392	404	425	441	392	442
2005	254	250	413	450	462	462	404	413
2006	260	250	417	385	481	481	425	423
2007	277	288	442	392	481	481	440	397
2008	288	290	450	415	500	481	462	469

Source: Labour Force Survey

Notes:

¹Earnings estimates are provided using the GRSSWK variable, which provides estimates of gross weekly earnings including overtime

²Does not include people who did not state their country of birth.

Gross weekly earnings data are known to be underestimated in the LFS. This is principally because of proxy responses. The estimates for '16-17' and '60+(F)/ 65+(M)' have not been provided due to small sample sizes for non-UK born

Earnings for those aged 50-59/64 show that, for seven of the eight years to 2005, non-UK born earnings were higher than UK born. In 2004, non-UK born earnings were £50 higher than UK born. In 2007, non-UK born earnings were £43 lower than UK born. In 2008, non-UK born earnings for the 50-59/64 age group were higher again, but only by £7.

Occupation

Table 4 shows the estimates for median gross weekly earnings for UK and non-UK born employees by occupation. Estimates are available on a consistent basis only from 2001, due to a change to the Standard Occupational Classification system (SOC) in 2001.

For the analysis that follows, the occupation groups have been categorised as 'higher paid' and 'lower paid', on the basis of being above or below the median earnings for all full-time employees in that period. The 'higher paid' occupation groups are the top three listed in Table 4 and the remaining ones 'lower paid'.

Earnings for non-UK born employees are higher than those for UK born employees in the 'higher paid' occupations. This was consistently the case for 2001, 2003 and 2008. Non-UK born employees also had

higher estimated median earnings in Personal Service Occupations and Administrative and Secretarial than their UK born counterparts for the three years presented. However, the earnings for those employed in Skilled Trades Occupations follow a similar pattern to that shown in Table 2, where earnings were higher for non-UK born than UK born employees until 2005, after which they had lower earnings.

Table 4: Median gross weekly earnings¹ for full-time employees by occupation² and country of birth.
United Kingdom, July to September

Occupation		(£s - not seasonally adjusted)		
		UK	Non-UK ³	All ⁴
Managers and Senior Officials (1)	2001	503	576	510
	2003	528	646	531
	2008	635	692	635
Professional occupations (2)	2001	508	551	510
	2003	558	615	574
	2008	626	674	635
Associate Professional and Technical (3)	2001	396	438	404
	2003	427	433	427
	2008	500	505	500
Administrative and Secretarial (4)	2001	269	312	276
	2003	287	308	288
	2008	331	366	337
Skilled Trades Occupations (5)	2001	325	346	327
	2003	340	400	346
	2008	420	385	413
Personal Service Occupations (6)	2001	222	254	230
	2003	231	277	233
	2008	269	288	275
Sales and Customer Service Occupations (7)	2001	221	237	222
	2003	231	225	231
	2008	269	317	270
Process, Plant and Machine Operatives (8)	2001	300	300	300
	2003	322	288	317
	2008	384	312	370
Elementary Occupations (9)	2001	231	214	230
	2003	250	240	248
	2008	300	270	290
All	2001	338	385	342
	2003	356	404	360
	2008	438	415	436

Source: Labour Force Survey

Notes:

¹Earnings estimates are provided using the GRSSWK variable, which provides estimates of gross weekly earnings including overtime

² Estimates are provided using Standard Occupational Classification (SOC) 2000.

³ Does not include people who did not state their country of birth.

⁴ Includes people who did not state their country of birth

Gross weekly earnings data are known to be underestimated in the LFS. This is principally because of proxy responses.

The estimates also show that non-UK born employees working in Process, Plant and

Machine Operatives and Elementary Occupations had earnings that were lower or equal to that of UK born employees for the three years presented.

In 2008, there were 1 million more non-UK born employees than in 2001. 42 per cent of this increase was from employees in 'higher paid' occupations and 27 per cent from employees in Process, Plant and Machine Operatives and Elementary Occupations. These latter groups are lower paid occupations, and Table 3 shows that the earnings for non-UK born people in these occupations are lower than the overall median for that occupation.

Qualifications held

Between 2004 and 2008, 22 per cent of the non-UK born employees who worked full-time were degree holders or equivalent, and approximately 52 per cent had 'other qualifications'. The latest figures show that 36 per cent of non-UK born employees with 'other qualifications' work in Process, Plant and Machine Operatives and Elementary Occupations. These groups are 'lower paid' occupations and the earnings for non-UK born people are lower than the average for the occupation.

The high proportion of people with 'other qualifications' might in part be due to unrecognised foreign qualifications being

placed in this category. With this caveat in mind, the latest figures show that approximately 80 per cent of non-UK degree holders are employed in the 'higher paid' occupations, whereas 58 per cent of those with 'other qualifications' are employed in the 'lower paid' occupations.

Year of arrival in the UK

The LFS question that asks respondents the year they arrived in the UK makes it possible to compare cohorts across time. It is therefore possible to look at differences in the qualifications held of those who arrived pre and post 2004 (the year that EUA8 countries gained EU membership), and distinguish the net effect of the most recent arrivals on the non-UK born population.

For those non-UK born employees that arrived in the UK before 2004, approximately 58 per cent had a degree or equivalent, higher education or A levels. For arrivals between 2004 and 2008, this figure was 33 per cent. This change is confirmed by the fact that only 32 per cent of those that arrived in the UK before 2004 had no or 'other' qualifications, while 64 per cent of arrivals between 2004 and 2008 had 'no' or 'other' qualifications. Overall, 42 per cent of post 2004 non-UK

born arrivals held 'no' or 'other' qualifications in 2008.

Figure 1 shows the percentage of non-UK born full-time employees as a proportion of the total number of employees, in each occupation, in 2001 and 2008. Over the period, the percentage of non-UK born full-time employees increased by 4.7 percentage points. The proportion of non-UK born employees has increased in all the occupation groups, the largest increases were for: Elementary Occupations (an increase of 10.6 percentage points); Personal Service Occupations (an increase of 7.1 percentage points); and Process, Plant and Machine Operatives (an increase of 6.1 percentage points).

This increase of non-UK born employees in the occupations with lower than average median weekly earnings helps explain the change in the median weekly earnings for non-UK born employees, from being higher than UK born earnings before 2006, to being lower thereafter.

3. Earnings distribution of UK and Non-UK born employees

Figure 2 shows the distribution of full-time employees by weekly earnings bands and country of birth for 1998, 2003 and 2008.

This highlights the trends identified previously, that is, estimates of earnings for non-UK born employees were higher than UK born employees until 2005, after which UK born earnings were higher than the earnings of non-UK born employees.

Figure 1: Percentage of non-UK born full-time employees by occupation in 2001 and 2008.

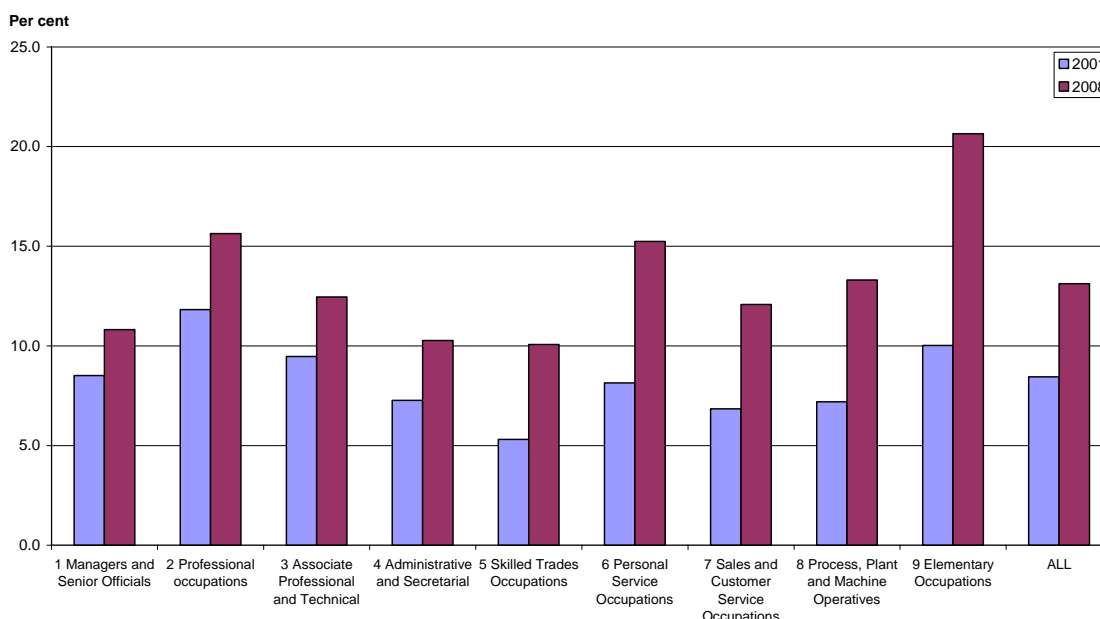
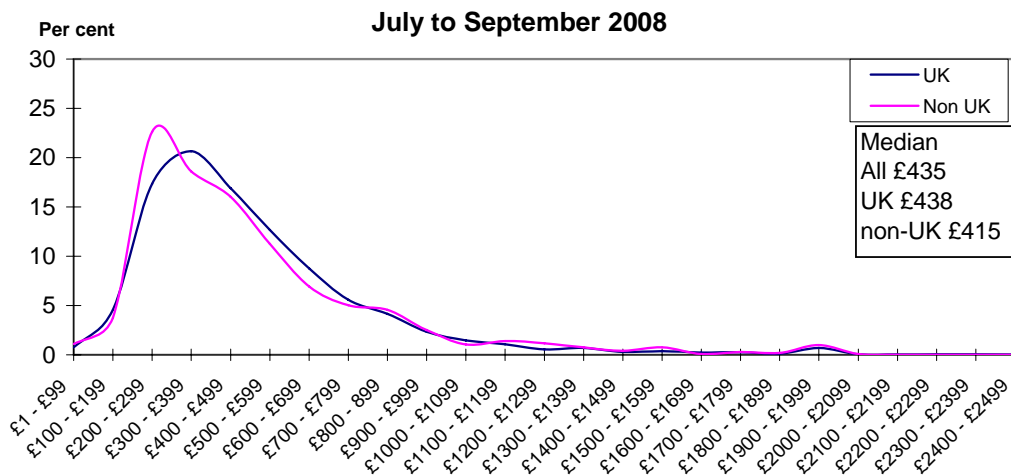
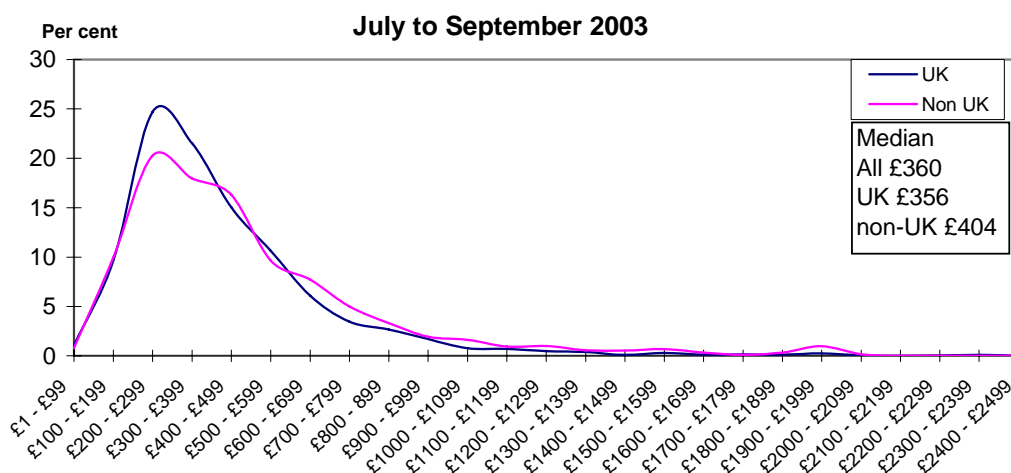
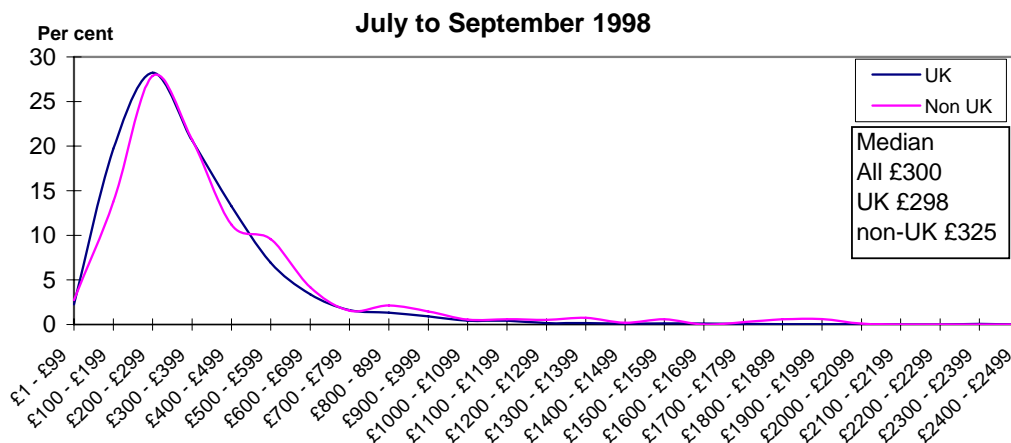


Figure 2: Percentage of full-time employees by country of birth and weekly earnings bands.



Source: Labour Force Survey

In 1998, the distribution for non-UK born was skewed slightly to the right of the UK born distribution. This shows that a larger proportion of non-UK born employees fell into higher earnings categories. For example, there was a larger percentage of non-UK born full-time employees with weekly earnings of £600 and £699 than those born in the UK.

In 2003, there was a larger percentage of UK born full-time employees with weekly earnings of '£200-£299' and '£300-£399' than of non-UK born. The earnings distribution for non-UK born people was flatter in the lower pay bands, and was to the right of the UK distribution. For all earnings categories above '£600-£699', the percentage of non-UK born full-time employees was higher than UK born.

The most recent earnings distribution shows that more non-UK born employees have lower earnings than those born in the UK. The distribution for UK born is to the right of the non-UK born distribution, and is also flatter, suggesting a smaller percentage of UK born employees have lower earnings compared to the non-UK born employees.

Further Work

This article is the third in a series examining the labour market characteristics of foreign born workers in relation to UK born workers. The topic of the next article will be announced on the National Statistics Release Calendar and published in February 2009.

For further information on this article or on ONS analysis of the labour market in relation to foreign workers, please contact:

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BOX 2: Sources and Methodology

The UK has two main sources of earnings data: the Labour Force Survey (LFS) and the Annual Survey of Hours and Earnings (ASHE), formerly known as the New Earnings Survey (NES).

The ASHE is generally preferred to the LFS for earnings analysis as it is based on company payroll information, rather than respondents' answers. However, it does not collect information regarding country of birth or nationality. For this reason the LFS, which does collect this information, is used for the purpose of this article.

The ASHE is an annual survey of employees which results in approximately 140,000 records per year. Employers are asked to provide detailed information on the hours and earnings of their employees and on the workforce characteristics. This information is almost always derived from employers' pay records.

The LFS is a quarterly sample survey of approximately 53,000 households living at private addresses in the United Kingdom. The survey seeks information on respondents' personal circumstances and the labour market status during a specific reference period. Information is collected on respondents' personal characteristics as well as information about hours and earnings in main and second jobs.

Around 14,000 employees answer the earnings questions each quarter.

LFS earnings data is based on respondents' answers (which may be by proxy) and therefore it may not be as accurate as payroll based sources. However, a study by Ormerod and Ritchie (2007) compared the two data sets, LFS earnings including over-time with ASHE earnings excluding over-time, and concluded that they are more consistent than previously thought. For example, the study found that gross weekly pay stands out as being particularly well-related across the two surveys and across a large proportion of the earnings distribution. For this reason gross weekly pay was used for the analysis presented in this article.

Additionally, comparing the two sources' estimates of median gross weekly earnings in 2007, the LFS figure including overtime (£413) is close to the ASHE estimate excluding overtime of (£423). Whilst these estimates are similar, it is clear that the LFS underestimates median earnings compared with the ASHE. This is probably because of two reasons: (1) under coverage of low earners in ASHE and (2) under coverage of high earners in LFS data. This affects the median estimation.

The analysis in this article presents figures for full-time employees, to be consistent with headline earnings estimates published from the ASHE. Also estimates from the LFS show that non-UK born workers are more likely to be working full-time compared to UK born. For July to September 2008, the percentage of UK born full-time employees is 74 per cent compared with 80 per cent for non-UK born. Therefore by excluding those who work part-time from the analysis the estimates produced and comparisons made between the groups are put on a more equal footing. However, it should be noted that estimates do not therefore compare the earnings of all UK born and non-UK born employees.

Estimates are based on median earnings, the most common measure used to summarise average earnings. As explained in Leaker (2008) the median is the preferred average because it is the middle point of the population, with exactly the same number of people earning below this amount as above. It is more suitable to present the median rather than the mean, as the latter can be influenced by the relatively few high values in the pay distribution.

Estimates are derived using the LFS Gross weekly pay variable (GRSSWK). The estimates presented are for employees only (i.e. self employed are not presented), because LFS earnings questions are not asked of self employed individuals.

References:

Clancy, G (2008) 'Employment of Foreign Workers in the United Kingdom (1997 to 2008)' Economic & Labour Market Review, vol 2, no 7, pp 18.

Ormerod C and Ritchie F (2007) 'Linking ASHE and LFS: can the main earnings sources be reconciled?', Economic & Labour Market Review vol 1, no3, pp 24.

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www.statistics.gov.uk/STATBASE/Product.asp?vln

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www.statistics.gov.uk/STATBASE/Product.asp?vlnk=14123

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www.statistics.gov.uk/STATBASE/Product.asp?vlnk=5837

