

EARNINGS AND HOURS OF AGRICULTURAL & HORTICULTURAL WORKERS ENGLAND & WALES (SEPTEMBER 2008)

Farming Statistics at DEFRA collect information on the earnings and hours of agricultural and horticultural workers by quarterly surveys every year, although future data will only be produced as annual averages for 12 months ending September. The latest results released in November 2008 for England & Wales contain annual estimates of the 12 months ending September 2008; this includes the four most recent quarterly surveys.

Method

A sample of holdings is surveyed and information collected for workers aged 20 years and over. The number of workers in the sample for each type of worker is published along with a 95% confidence interval for the main results. For example, the national average weekly earnings for male full-time workers were £356.13 with a confidence interval of \pm £18.97, so we can be 95% confident that the population average for all such workers in England and Wales lies within £337.16 - £375.10.

From March 2008 the methodology was changed for this survey to target more of the large farms, based on each farm's Standard Labour Requirement (SLR). The SLR is the theoretical amount of labour needed to run the farm. This change improves targeting of formal workers, rather than collecting data from family helpers or other informal workers on small holdings, to give more robust estimates of pay. Results are weighted during analysis to ensure that they are representative of the population of farm workers.

A threshold has also been included so that farms requiring less than one full time worker to run them are excluded from the survey results. These farms, with SLR less than 1, are typically hobby or part-time farms where the principal farmer does not work full time and it would be unusual to employ paid labour. It was often difficult to get responses from these farms and because they rarely employ workers, their impact on results is negligible. This also reduces the paperwork burden on the smallest farms.

From 2008 Welsh data will only be collected twice yearly (September and March), however it is estimated that the impact on the quarterly results for earnings per hour will be negligible. Welsh data is still included in the annual figures.

Definitions:

- **Average weekly earnings** include cash earnings, contributions to council tax, holiday pay, sick pay, bonuses and an appropriate value of payments in kind.
- **Average weekly hours worked** includes all hours worked, paid holidays and paid sick leave. Unpaid leave is not included.
- Annual data are derived using survey data for the current and previous 3 quarters. The data have been weighted to remove any bias due to sampling or response rates. Seasonal weights have been applied for casual workers to account for the increased number of workers during the harvest period.

Confidence intervals

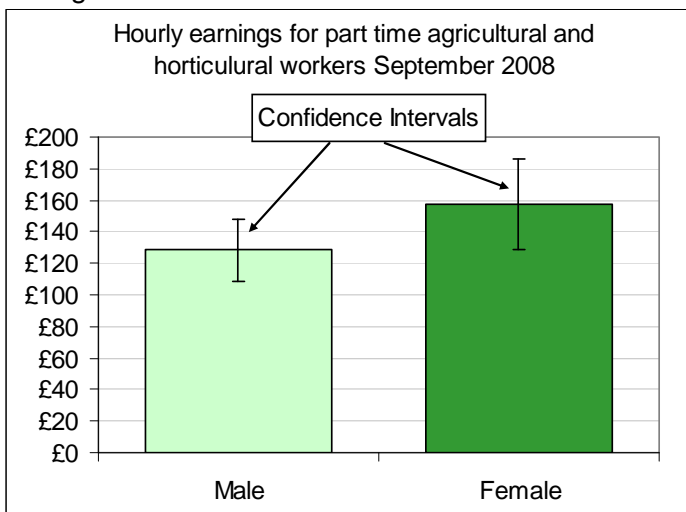
Periodically, this article will refer to confidence intervals around earnings values, below is an explanation of what a 'confidence interval' is and what it means for using these figures.

Surveying a large enough sample of employee jobs enables an estimate of the level of earnings in the county to be made; these figures are published along with coefficients of variation which enables the calculation of a confidence interval for each figure. Confidence intervals (C.I.) give an indication of the possible margin of error around these estimates. The smaller the sample size and the greater the degree of variation, the wider the C.I. will be.

For example, the 2008 results state that the average hourly earnings for male full time agricultural workers were £128.54 per hour and the 95% confidence interval suggests that the average earnings for all those working within agriculture and horticulture could lie within + or - £19.57 of this figure.

It is important to use confidence intervals when making comparisons using results drawn from sample surveys, as differences seen between the published figures may not be statistically significant. For example, if the ranges of the confidence interval for each of the estimates overlap with each other then it is possible that the 'true values' are actually the same.

Chart 1. Confidence Intervals of 2008 male and female full time agricultural workers England and Wales.



In 2008, the published figure for hourly earnings of female full time agricultural workers was £157.57 and the figure for males was £128.54, which suggests that female part time workers earn more than male part time workers.

However the confidence levels around both of these figures overlap (see Chart 1) which show that statistically there is no measurable difference between male and female earnings nationally.

When confidence intervals are referred to they will be shown as \pm £0.00, i.e. plus or minus however many pounds from the published figure.

Results – 2008

Table 1 Average earnings and hours by type of worker in England & Wales for the 12 months ending September 2008

| Type of worker | Full Time | | Part Time | | Casual | |
|---------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | Male | Female | Male | Female | Male | Female |
| Average weekly earnings | £356.13 +/- £18.97 | £289.02 +/- £19.91 | £128.54 +/- £19.57 | £157.57 +/- £29.09 | £233.40 +/- £23.81 | £185.98 +/- £32.71 |
| Average weekly hours worked | 46.6 +/- 2.3 | 41.6 +/- 2.2 | 18.0 +/- 2.6 | 23.2 +/- 3.8 | 34.5 +/- 3.2 | 30.0 +/- 5.0 |
| Average earnings/hour | £7.64 +/- £0.16 | £6.95 +/- £0.20 | £7.12 +/- £0.31 | £6.81 +/- £0.37 | £6.77 +/- £0.32 | £6.20 +/- £0.35 |
| Number of workers in the sample | 283 | 170 | 68 | 79 | 127 | 58 |

Source: Statistical Notice, DEFRA, November 2008.

It is really only for full time workers that there is a significant difference between male and female pay, with male workers earning more than female workers, evidenced in both the weekly and hourly earnings. Any other perceived differences in male and female earnings bear no statistical significance.

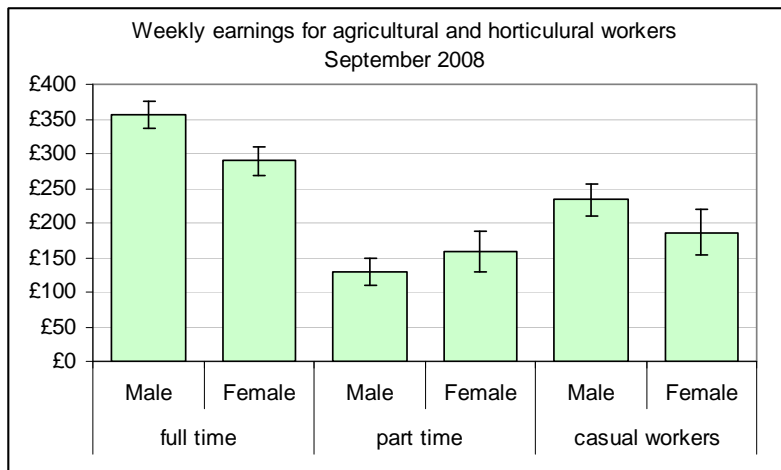


Chart 2.

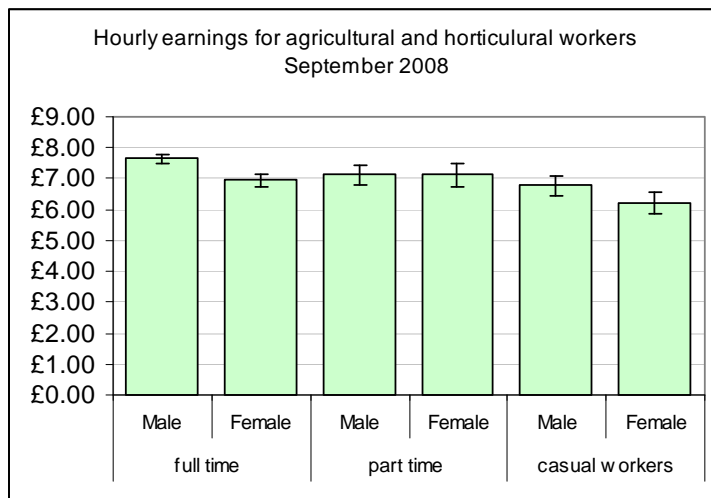


Chart 3.

Trends

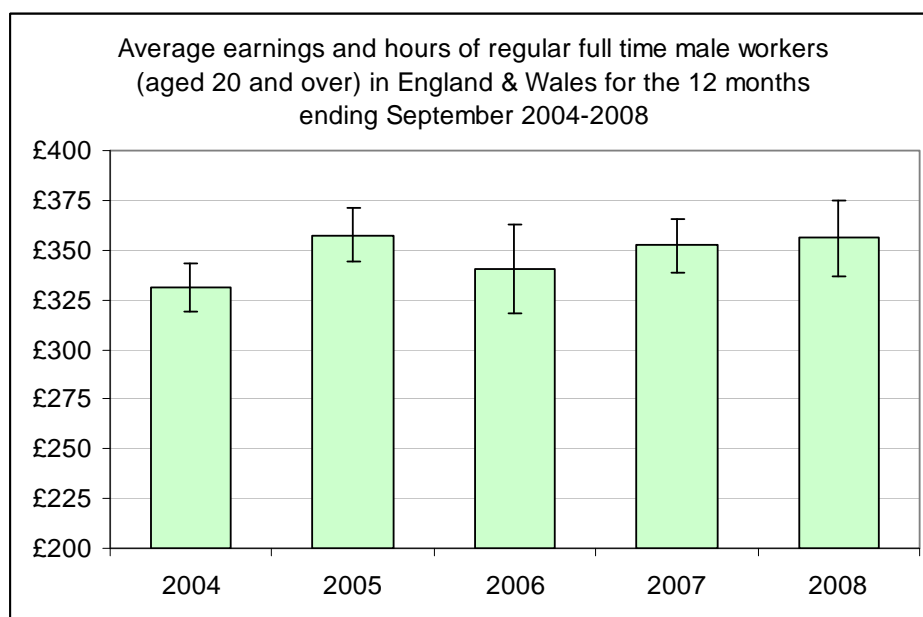
Analysis of trends for the average hourly and weekly earnings for the 12 months ending in September from 2004 to 2008 for full-time male workers are shown in Table 2 and the chart below. Comparisons made between the figures from different years should be treated with caution, as the perceived changes in the average values may not be statistically significant at the 95% confidence level.

Comparisons made between data from 2008 and any year from 2004 onwards yield no statistically significant changes in earnings or the number of hours worked.

Table 2 Average earnings and hours of regular full time male workers (aged 20 and over) in England & Wales for the 12 months ending September 2004-2008

| | 2004 | 2005 | 2006 | 2007 | 2008 |
|---------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Average weekly earnings | £331.26 +/- £12.46 | £357.64 +/- £13.62 | £340.60 +/- £22.05 | £352.33 +/- £13.62 | £356.13 +/- £18.97 |
| Average weekly hours worked | 46.2 +/- 1.2 | 48.4 +/- 1.4 | 46.1 +/- 2.4 | 47.0 +/- 1.4 | 46.6 +/- 2.3 |
| Average earnings/hour | £7.16 +/- £0.17 | £7.40 +/- £0.17 | £7.39 +/- £0.21 | £7.50 +/- £0.16 | £7.64 +/- £0.16 |
| Number of workers in the sample | 311 | 299 | 248 | 279 | 283 |

Source: Statistical Notice from DEFRA November 2008.



For further information, contact Farming Statistics at DEFRA on 01904 455332 or e-mail farming-statistics@defra.gsi.gov.uk