## Why do we use the median figure for house prices and earnings?

The mathematical definition of an "average" is that it is a measure of central tendency, - in layman's terms it, in some sense or other, represents a measure of the "middle" value of the data set.
Mathematics defines several types of "average" and it is "horses for courses" as to which one is used for any particular application.

There are two types of average that are commonly used - I will explain these using house prices as an example.

- If we add up all the prices and divide by the number of houses, this gives the mean
- If we take all of the house prices in order from the lowest to the highest, and then take the mid value (ie $50 \%$ of house prices are lower and $50 \%$ are higher) this gives the median.

The median is a more faithful representation of the prevalent house price than the mean, as the latter is skewed by extreme values - you could work out a mean house price for the county, then if the next week a property costing a couple of £million came on the market, the mean price would shoot up. The median, however, would hardly be affected.

The same applies to earnings - if you are looking for what a "typical" Herefordshire resident earns, use of the mean would give you a result that was disproportionally affected by a few six-figure earnings at the top of the range. Most people would agree that the median gives a fairer result.

In conclusion, the median is a type of "average" and can be described as such for example a correct statement would be
"Over the quarter July to September 2011, the average (median) house price in Herefordshire was $£ 180,000$ "

When quoting statistics, we try to give a fair representation of the underlying data, and, for both house prices and earnings, the median is the best choice to do this.

