AQW 26712/11-15 18th October 2013

Steven Agnew has asked:

To ask the Minister of Education what evidence there is to show that there are higher instances of special educational needs in areas where there is a higher uptake of free school meals. The most up-to-date figures for entitlement to free school meals and SEN relate to the 2012/13 school year, these are detailed in the graph below. Updated 2013/14 figures will be available following the completion of the annual school census which will be carried out during October.



Source: School census

Note:

- 1. Figures for primary include nursery, reception and year 1 7 classes.
- Figures include pupils at stages 1 5 on the Special Educational Needs Code of Practice.
- 3. Figures include all pupils entitled to free school meals; including nursery units (whether free school meal or JSA).

4. Special schools, nursery schools and voluntary and private preschool centres have not been included.

Statistical evidence shows that there is a moderately strong positive relationship between wards with pupils with special educational needs and entitlement to free school meals. This means that as incidence of special educational needs increases, incidence of pupils entitled to free school meals tends to increase as well.

It is important to be aware that, statistically, a moderate correlation does not necessarily infer causation and there could be the possibility that the relationship is caused by other factors.

Using the statistical technique of correlation the strength of the relationship between these two variables can be measured by means of a single value known as r-squared. The r-squared value, which falls between zero and one, can be analysed using the following suggested categorisation:

- 0 to 0.2 Very weak to negligible relationship
- 0.21 to 0.4 Weak, low relationship
- 0.41 to 0.6 Moderate relationship
- 0.61 to 0.8 Strong, high relationship
- 0.81 to 1.0 Very Strong

The r-squared value will show the extent to which the two variables change proportionally to each other, i.e. as one increases or decreases the other will increase or decrease. For example, an r-squared value of 1 would imply that any change in the proportion of pupils entitled to FSM in schools would be matched by the exact same change in the proportion of SEN pupils in schools. Alternatively, an r-squared value of 0.2 would imply that a change in the proportion of pupils entitled to FSM in schools is matched by a change in the proportion of SEN pupils in only 20% of cases. This would, however, leave 80% of changes to be explained by other factors and would therefore be considered to be a weak relationship.

It is worth noting that a strong correlation between two variables does not necessarily imply a direct dependence between the variables, as there may be other factors which influence them.