To whom it may concern,

School workforce data collection in Wales

This letter is intended as a short complement to the Welsh Government consultation on school workforce data collection in Wales.

The Institute of Physics (IOP) is a leading scientific membership society working to advance physics for the benefit of all. We have a worldwide membership, from enthusiastic amateurs to those at the top of their fields in academia, business, education and government. Our purpose is to gather, inspire, guide, represent and celebrate all who share a passion for physics. And, in our role as a charity, we’re here to ensure that physics delivers on its exceptional potential to benefit society. Alongside professional support for our members, we engage with policymakers and the public to increase awareness and understanding of the value that physics holds for all of us.

The IOP uses school workforce data, where it is available, to support its functions in a number of ways, including to inform and benchmark our work in schools, and to perform policy and data analysis on trends and challenges within schools. We therefore welcome the desire of the Welsh Government to collect and publish school workforce data. We can offer some comments based on concerns we have with the way English school workforce data is collected and presented.

Physics and school workforce data

Our principle concern is that individual sciences should be accounted for within the data – even when they are taught as part of a combined science course. If that is not the case, it is impossible to build an accurate picture of the extent to which the teaching of physics is being carried out by subject specialists. This relates both to the subject being taught in classrooms, and the full information on the qualifications of teachers.

Within the data it is tempting to record the teaching of physics in a combined science course as ‘science. This means that a teacher with a background only in biology and biology teaching who teaches physics as part of a combined science course will be recorded as a subject specialist (a science teacher teaching science). However, the data should show this as non-specialist (a biology teacher teaching physics). Given that combined science courses account for around 80% of physics teaching at GCSE, it is important that it is recorded correctly.

In addition, although estimations can be made as to the numbers of specialist teachers, based on the degree and initial qualifications of teachers, crucial data is missing in terms of a record of any pre-ITE or in-service subject specialism training course, such as a subject knowledge enhancement (SKE) course. Without recording this information, the data will underestimate the number of specialists because it will not be able to properly identify those who have become a specialist by retraining.
Therefore we would recommend that

- Even within a ‘science’ course, the sciences should be timetabled individually and recorded by the discipline, to better understand the extent of teaching in each subject; i.e. a physics lesson within a combined science course should be recorded as physics and not science (and we would expect it to be taught by a physics specialist rather than a ‘science specialist’); and
- A record of any pre-ITE or in-service subject specialism training for each teacher should be recorded.

We look forward to continuing to engage with the Welsh Government and others on the subject of school workforce data.

Yours faithfully,

Dr Carol Davenport CSciTeach CPhys MInstP
Vice President, Education
Institute of Physics