

Science and the Senedd Teacher Numbers

- Call on the Welsh Government to work with the Institute of Physics and identify a path forward to **increase the number of specialist physics teachers in secondary schools** in Wales.
- In 2022, Wales had fewer physics-trained teachers (177) than secondary schools (178).^{1 2}
- Data on the teacher shortages is lacking. We do not know which schools have specialist physics teachers and which schools do not. If the Welsh Government collected this data we could see if there is a pattern to the shortages which would help us make recommendations on diagnosing the problem. Initial data suggests that teacher shortages align with economic deprivation – but we want to confirm this.
- We believe that students who have a specialist physics teacher at school are much more likely to go on to study physics at a higher level, opening up huge career opportunities.
- IOP analysis shows that one in 10 jobs in Wales is physics based, with the physics sector directly generating 10% of Wales' GVA at £7.3bn.³
- However, Wales' shortage of physics trained teachers to inspire students and help them realise their physics talents could prevent learners from following a physics career in this thriving sector and the sector from growing.
- The Welsh Government targeted the recruitment of 61 students to complete the physics initial teacher education (ITE) programme for 2023–24.⁴ Despite this, it saw only three students become trained in physics last year, falling short of its target by almost 95 percentage points.⁵

¹ Education Workforce Council. 2023. [Annual Education Workforce Statistics for Wales 2023](#). Cardiff: Education Workforce Council.

² Welsh Government. 2023. [Schools' census results: January 2023](#). Cardiff: Welsh Government.

³ Institute of Physics. 2019. [The contribution of physics to the Welsh economy](#). London: Institute of Physics.

⁴ Education Workforce Council. 2023. [Secondary Intake allocations 2022-23](#). Cardiff: Education Workforce Council.

⁵ Education Workforce Council. 2023. [Initial teacher education \(ITE\) results](#). Cardiff: Education Workforce Council.

- 58% of secondary schools considered themselves understaffed for physics teachers in 2022.⁶ This was much higher than any other nation in the UK.
- Wales also achieved its lowest ever PISA score in science in 2022.⁷

The bursary

- The Wales ITE bursary is worth just over half of the bursary in England.
- Wales offers £15,000 for secondary physics, extended to £20,000 for Cymraeg.
- England offers £27,000, rising to £29,000 for ‘high calibre’ applicants, and a £3,000 incentive for those training in the most disadvantaged areas (a separate veterans offer is worth £40,000).
- For further education physics, the Welsh incentive is £3,000 with an extra £1,000 for Cymraeg. In England, further education is £26,000.

Retention

- There are many avenues to better the support early careers teachers receive. Ensuring that physics-trained teachers stay within the system in the first five years of their teaching career greatly increases the chance of them remaining as teachers for the long-term.

⁶ Royal Society of Chemistry. 2022. [The science teaching survey 2022](#). Online: Royal Society of Chemistry.

⁷ Senedd Research. 2023. How did Wales perform in PISA 2022? Cardiff. Senedd Research.