# Number of girls taking A-level physics rises despite overall decline in entries 

August 13 2015, by Christopher White
The number of girls taking A-level physics has risen despite an overall decline in entries to physics A-level.

Although there was an overall rise of two percent in the number of Alevel entries, the number taking physics fell from 36,287 compared to 36,701 last year - the first time numbers have fallen since 2006. The number of girls taking physics rose by $1.1 \%$, however.

Attainment was high, with more than $52 \%$ of students achieving a B or better, showing that physics is not inherently any harder than other facilitating subjects.

The Institute's head of education, Charles Tracy, said: "It is great to see so many students taking physics A-level and achieving high grades. Not only is physics accessible, it is a gateway to a wealth of different career and educational options, and their success will provide them with many opportunities now and in later life."

Although the relatively high number of entries and the high grades were welcomed, there is concern about indications that all but the highestperforming pupils are put off from continuing to study physics.

The most common grade at physics A-level was A/A*, and this success was noted as a pleasing and just reward for those students. However, it also suggests that only the highest-achieving pupils at GCSE go on to take physics A-level, meaning many miss out on the opportunities that a
physics A-level provides.

Tracy said: "The number of high grades shows that students who choose physics are extremely successful. However, we are concerned that this skewed distribution indicates either that students are self-selecting, or that schools are applying a different entry requirement for physics than for other subjects.
"Either way, we are worried that students are getting the erroneous message that physics is harder than other subjects. Having a higher entry requirement plays into this impression. It can be dispelled by ensuring that students choosing physics A-level have the same entry requirements as they would for other subjects."

Equitable entry requirements are also likely to encourage more girls to take physics. Once again, girls make up only about $21 \%$ of the A-level candidature in physics. Although this proportion is up on last year, more information is needed on why girls are not choosing physics. The Institute is now running the Improving Gender Balance Programme to pilot some new, innovative and evidence-informed interventions to counter the factors that deter girls from choosing physics.

A drop in the A-level entries this year was expected following a similar fall in the number of 17-year-olds taking AS physics in 2014 compared to the previous year, which was likely due to 2013's GCSEs having been graded more severely than in 2012. Although the national entries to AS physics were down in 2014, numbers rose in schools that were a part of the Stimulating Physics Network (SPN). IOP expects a similar increase in A-level numbers in SPN schools this year - i.e. they are likely to buck the national trend.

## Provided by Institute of Physics

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