Aspects of AS and A-level Physics Uptake

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Concern is often expressed about the declining uptake of A-level Physics in England. However, such concerns do not always take account of important information. In particular some analyses have been based on A-level entries when the actual supply of A-level Physicists is based on passes.

This paper will draw together the findings from previous work undertaken by Cambridge Assessment into the uptake of different subjects at A-level and report on new work that addresses some issues arising.

We review the trends in Physics A-level uptake over the last twenty years in relation to other A-level subjects (for example, the Physics entry in terms of the size of the overall A-level entry), and consider the impact of broadening the sixth form curriculum.

We also consider the uptake of A-level by school type, ethnicity and social factors. We will address the claim that the independent sector is particularly successful at encouraging students to take A-level Physics. The apparent decline of entries in the state sector compared to the independent sector is placed in the context of the ability of the candidates taking the A-level.

Patterns of entry of GCSE science subjects and how they relate to A-level uptake will also be described. In particular, it will be demonstrated how the compensatory nature of Double Award Sciences has led to misleading views of its efficacy as preparation for Physics A-level.

The paper will also review the reasons why students choose Physics at A-level, including secondary analyses from a large scale survey conducted by Cambridge Assessment into the reasons for A-level choice.