SCORE
SCIENCE COMMUNITY REPRESENTING EDUCATION

A SCORE response to the Department for Business, Innovation and Skills consultation on the Higher Education White Paper *Putting students at the heart of higher education*

SCORE is a collaboration of five leading science organisations[1] working together on science education policy at 5-19. Though SCORE's focus is Secondary rather than Higher Education, it has concerns that the AAB proposal will significantly impact on the 5-19 education system and is taking this opportunity to highlight the potential unintended consequences of such a policy.

SCORE is concerned that removing the cap on university places for students achieving at least AAB or equivalent at A-level may have a damaging effect on the uptake and suitable subject combinations of science and mathematics A-levels, and work against the Government's drive to increase Science, Technology, Engineering and Mathematics (STEM) participation at A-level, Higher Education and Further Education.

There is much evidence to support the view that some subjects are graded more severely than others. In 2008 SCORE commissioned research which analysed 250,000 A-level results over five robust statistical methods and found that it is easier to achieve the top grades in subjects like Media Studies and Psychology than it is when taking subjects like Mathematics, Physics and Chemistry[2]. We therefore have concerns the AAB policy may encourage students wishing to progress in the sciences to choose subject combinations that are more likely to achieve the highest grades rather than best prepare them for their undergraduate course.

This is particularly pertinent for A-level mathematics and further mathematics. In 2010 SCORE reported that universities recruiting science undergraduates highly value those applying with an accompanying mathematics A-level[3]. Even so, in the past, potential concerns over student recruitment have prevented a number of university science departments specifying a mathematical requirement. The recent huge increase in A-level mathematics participation has begun to reverse this and resulted in greater transparency regarding STEM university entry requirements. Consequently, SCORE is concerned that the proposed AAB policy has the potential to work against this. Rather than encourage mathematics and science A-level combinations, it may become in the university's best interest to advise students to avoid studying A-level mathematics to ensure that they reach the AAB threshold.

There is the need for a transparent approach to the grading severity of different subjects at A-level. One way of adapting the AAB proposal would be to uncap places for students achieving high grades in what the Russell Group calls 'Facilitating subjects'[4] – i.e. subjects such as Mathematics, Further Mathematics, the Sciences, English, History, Geography and languages. The Russell Group has identified these as being most respected by universities and most useful for progression to Higher Education. A performance threshold that reflects this would be a more effective way of meeting the government's objectives.

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[1] Association for Science Education, Institute of Physics, Royal Society, Royal Society of Chemistry and Society of Biology

[2] Robert Coe, Jeff Searle, Patrick Barmby, Karen Jones and Steve Higgins (July 2008) Relative difficulty of examinations in different subjects. CEM Centre; Durham University.

[3] SCORE (February 2010) Choosing the right STEM degree course: investigating the information available for prospective applicants

[4] The Russell Group (May 2011) Informed Choices: A Russell Group guide to making decisions about post-16 education.