

Mathematics Provision in UK Universities

A number of universities in the UK are discontinuing their mathematics degrees. It is worth noting that nearly all of the universities that are doing so are post-1992 institutions. It is possible that this situation has arisen because the pre-1992 universities have increased the number of places for mathematics undergraduates diminishing the pool of students available to the post-1992 universities.

The nature of the degrees offered by the post-1992 universities are, in general, different from those offered by the older institutions. The courses at post-1992 tend to offer an applicable and practical approach to mathematics whereas the courses offered by the older universities are usually more theoretical. The announced closures may lead to a reduction in the diversity of the mathematics courses offered by UK institutions.

Another cause for concern is that a large proportion of the mathematics graduates who enrol on PGCE courses to become mathematics teachers come from the post-1992 institutions. The drop in the number of graduates from such institutions could lead to a reduction in the overall number of mathematics graduates entering the teaching profession and consequently exacerbate the existing shortage of mathematics teachers.

Allied to the closure of mathematics degrees is the closure of mathematics departments. This will have a negative impact on other STEM programmes (e.g., physics, chemistry, biology, engineering, computer science) as, often, mathematics departments support other departments in the teaching of mathematical courses within their programmes. If mathematics departments close, the teaching of mathematics will have to be delivered 'in-house', thus increasing the workload of other departments. In addition, these mathematical courses will frequently be delivered by non-mathematicians, and will likely be of a more applied nature and less theoretical.

If future mathematics teachers are graduates from cognate disciplines (e.g., engineering, physics), these teachers will not have learnt mathematics from mathematicians, and will probably have experienced mathematics from an applied perspective, using mathematical methods/tools to solve practical problems, rather than by doing mathematics to develop mathematical thinking. The essence of what mathematics is as a discipline could therefore be weakened in future generations of teachers and pupils.

It is slightly perverse that universities are cutting their mathematics degrees and closing mathematics departments at a time when the government has committed to making mathematics education compulsory to age 18. Mathematics is a vital component of many disciplines and there is a huge, and increasing, demand for employees who are mathematically literate. The Mathematical Association would like the Government, and other interested parties, to take action to strongly discourage any further mathematics degree closures, and to encourage and incentivise institutions that do not currently offer mathematics programmes to introduce them.