Intake to Maths Sciences degrees

Session for HoDoMS 28th April 2022

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The issue

- Intake to Maths Sciences degrees in the UK static over last 10 years – around 8.5k
- This masks **significant** variations at HEI level
- Not just a Covid effect, though has accelerated since 2019
- Around 15 ‘low tariff’ institutions (≤ B grade) share intake of less than 400 students.
- Maths is becoming an A*A* only degree, leading to lack of diversity of intake.
- Risk that diversity of provision may be lost.
A level Maths

• Entry to A level Maths continues to rise gradually
• Maths is the most popular A level subject with around 90k entries in 2021
• Further Maths A Level intake is steady at 15k
• 54% of those taking A level Maths got A or A* grades in 2021

Data source: UK Government Official Statistics
Maths UG Entry

• Tariff offers range from CCC to A*A*A* (plus additional tests)

• The distribution of offers appears to have A in Maths as the median

• All providers at the lower end of the range (B or C in Maths) have intake below 50 and dropping

• Lower tariff providers had 13% of the market share in 2011 and 4.5% in 2021.

• Many of the higher tariff providers have increased intake by over 150%

• UK-wide trend ie includes Scotland
Graduate prospects for maths grads

• Graduate employability for Maths grads remains high at all tariff levels – there is no evidence of an oversupply of maths grads.

• Mathematics graduates going into teaching are frequently drawn from the middle to low tariff HEIs.

• Mathematics graduates from high tariff HEIs are more likely to leave their region of domicile (with London a major destination), leading to a loss of maths grads to the regions.

Data source: Dr Charlie Ball, Senior Labour Market Consultant, Prospects Luminate
Intake to Maths vs Computer Science

Maths UG Acceptances

Computer Science UG Acceptances

Data source: UCAS Provider-level end-of-cycle resources
Computer Science

- Computer Science tariff offers range from CCC to A*A*A*

- There are providers at the very lowest tariff whose recruitment is continuing to rise.

- There is evidence that at the high tariff end a similar effect to maths is happening, with 200% rises in intake not uncommon.
So what?

- If pupils with B or C don’t choose maths UG, lower tariff providers are likely to drop out of the market.

- The sensible strategy for an individual provider is to increase tariff or leave the market (or maybe rebrand as ‘Data Science’?)

- If Maths becomes an A*-only course, this provides diminishing opportunities for pupils from disadvantaged backgrounds/regions to study Maths in the future.

- Diversity of types of maths programmes is likely to decrease, which may impact on supply of graduates for some employment areas
Discussion points

- In terms of benefitting UK plc, what are the most important characteristics of diversity of provision that ought to be preserved?

- What are the key actions we should be asking for, and from whom?

- How can we influence within our own institutions and/or at national policy level?