



UK Computing Summit 2024

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Meet the team



- Laure Barker, Head of High Education
- Ian Borthwick, Head of Publishing
- Ashley Larkin, Key Account Manager
- Katy Clarke, Marketing & Events Manager
- Holly Porter, MD BCS Institute
- Parveen Samra, Chair BCS Academic Accreditation Committee
- Alastair Irons, VP BCS Academy of Computing
- Alastair Revell, BCS President
- Kevin Chalmers, VP BCS Community Board
- Adam Leon Smith, Chair BCS Fellows technical Advisory Group (F-TAG)
- Ian McChesney, Chair BCS NI Computing Education
- Tom Crick, Editor-in-Chief Computer Journal
- Alan Hayes, Chair BCS Academic Specialist Group

Computing for All

At BCS, our aim is for all young people to receive a great computing education so that...

A plentiful and diverse pipeline of young people progress into computing careers

Most young people leave education equipped to succeed in the digital workplace

All young people leave education digitally literate and able to thrive in the digital society

Our priorities

1

Support educational **institutions** to provide high quality computing education

2

Increase the number and diversity of high quality computing **educators**

3

Support **young people's** computing journey in education & into careers

Our work

Institutions



88%

of UK schools reached through Computing at School (CAS) and Barefoot



100+
universities accredited

Educators



25k+

educators engaged across the UK in the last year through our school programmes



800 NEW

computing teacher scholars supported into teaching since 2013



7,000+
CERTIFICATIONS

awarded across primary, secondary and A level teachers

Young People



3.3m

primary students reached by Barefoot



7,000+

computing undergraduates supported with professional network and employability skills through BCS Academic Membership



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STUDENT CHAPTERS

enhancing computing students' academic and social experience

Public Policy

- Extensive engagement with stakeholders across the sector through our boards and committees.

- Comprehensive analysis of the current computing qualifications landscape.



- Impactful policy recommendations on improvements to GCSE Computer Science, a new Applied Computing GCSE, and a Digital Literacy qualification for all students.

- Growing support for our recommendations from teachers, stakeholders and policy makers.

Snapshot UK HE Computing

- Computing continued growth up by 4.7% YoY in 2023
- 14.4% growth in female participants
- 36,160 students accepted as first year undergrads AY 23/34
- 86% of UK computing students attend non-RG institutions
- 79.5% of all UK HEIs offer computing programmes
- BCS accredits 600+ programmes in ~54% of institutions

Growth in 4 nations

- Most growth has been seen in HE institutions in England.
- The number of students attending English institutions has grown by 6% YOY.
- Overall numbers have dropped in Northern Ireland (-7%), Scotland (-2%)
- Non-UK students represent about 15% of the undergraduate first year cohort

Between 2019 and 2023 the overall growth in Computing across the UK rose by 20%.

Predominantly from increased interest from females, up to 70% higher in England and over 40% greater in Wales

The male:female ratio now just over 4:1

Retention

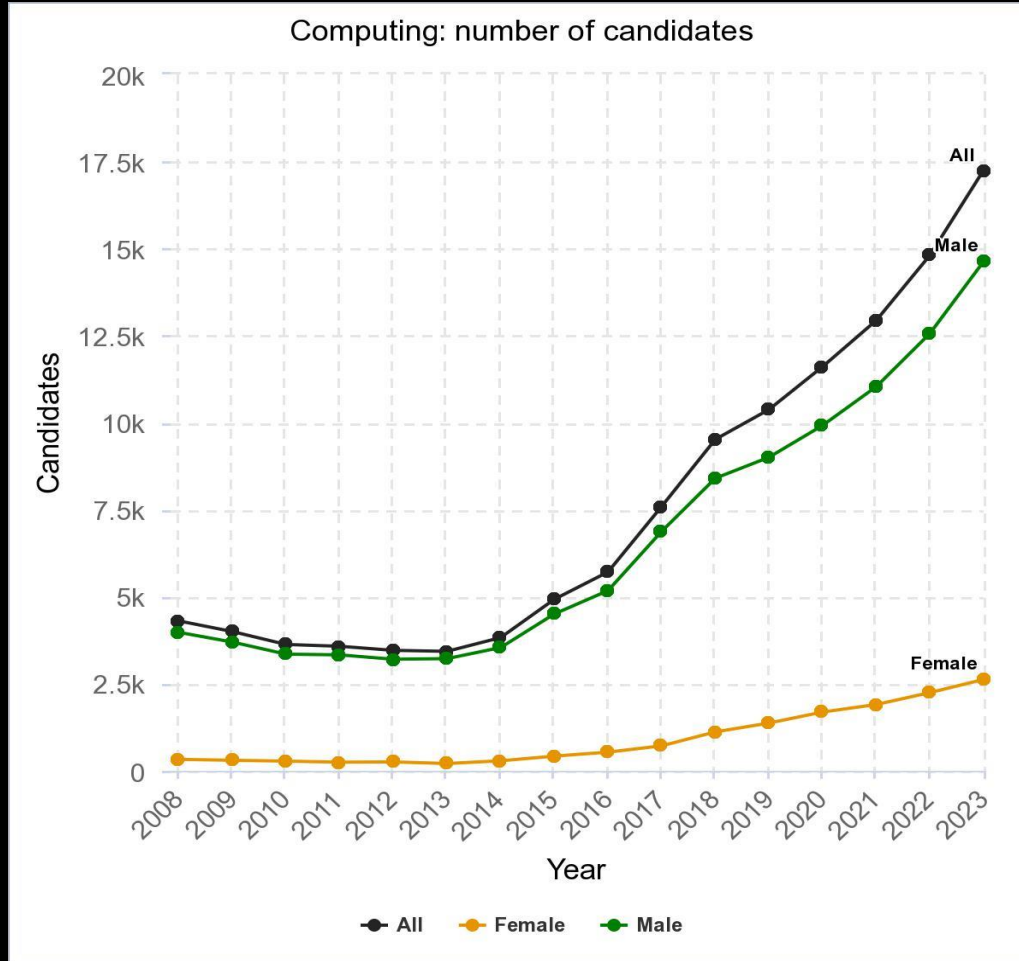
- ~85% of acceptances convert into graduates
- 7.7% of 'young' CS students who accepted a place and did not leave within the first 50 days left after their first year.
- This is the highest rate, with Biological and Sports Sciences next highest at 6.6%.
- We access to more data to understand whether there particular trends in retention rates.

HE Snapshot: A summary of findings

- A small number of very high-volume providers - rate of growth modest
- Impact of new providers is marginal
- Reducing scale of activity at some high tariff institutions
- Reduction in access in some places (e.g. Northern Ireland)
- Growth is outstripping national trends but signs the rate may be slowing

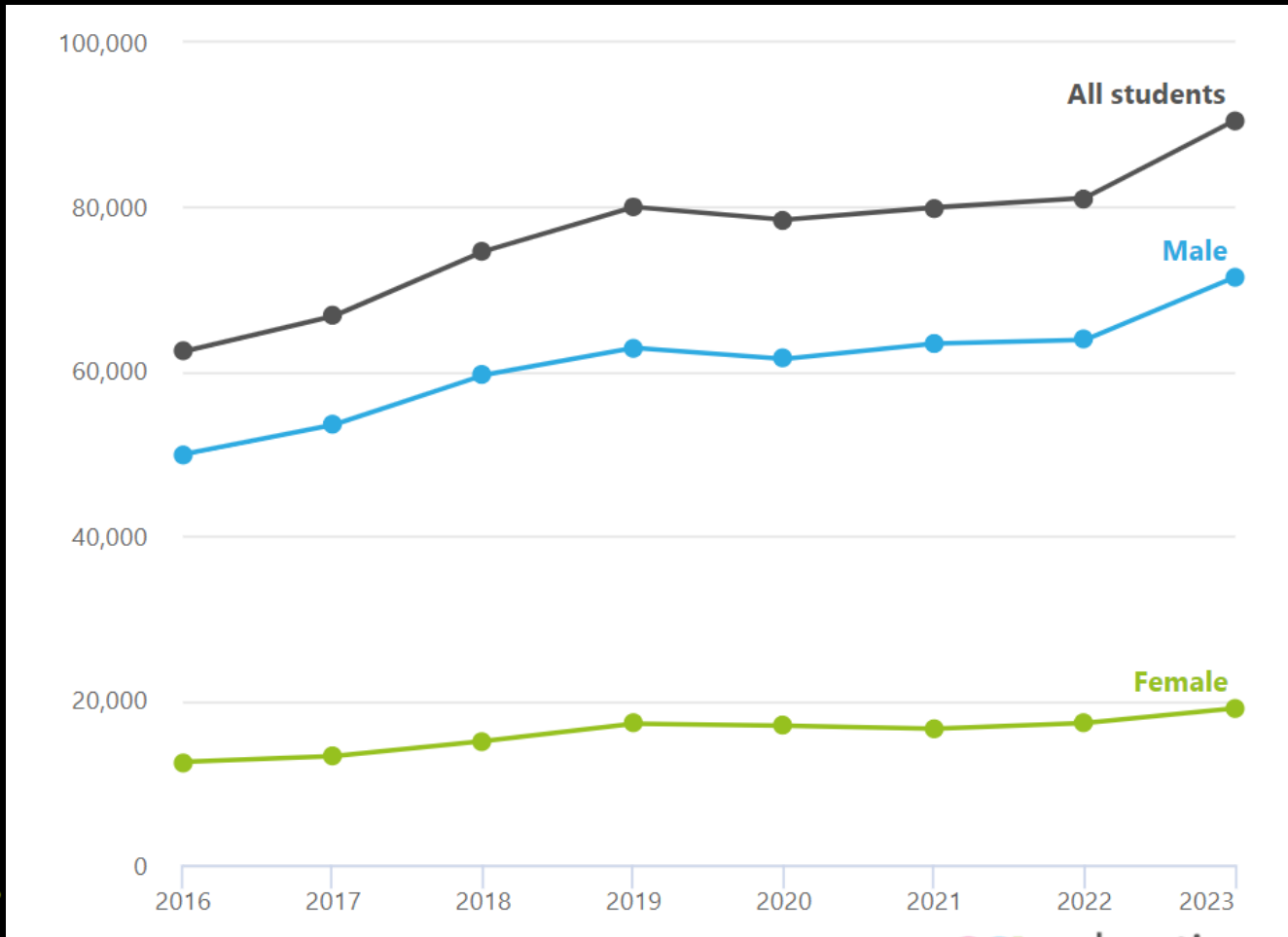
Lack of strategic and planned growth can impact on the quality of teaching and learning and, therefore, student experience

A Level Computer Science



- Lowest proportion of females amongst all subjects, 15% compared to Biol (64%) Chem (56%) Phys (23%)
- 42.9% of top grades (A+) secured by students who attended Independent schools compared with 20.6% who attended state sixth form.
- Pass rates amongst female candidates in CS (95.8%) higher than in all other science subjects (Chem 95.3% Phys 95.5% Biol 95.6%). And lowest amongst males.

UK Computer Science GCSE



90k+ students in 2023

~12.6% of cohort

Total entries 90,558 (2023)

Total Cohort ~720k students

Compared to ~40% Geography (293k) |
~26% Biology (191k) | ~27.5% Art (198k)

Level 2 Computing Quals

....we've made progress, but the challenges remain significant
with most young people opting out of computing and digital
qualifications aged 14, in fact

94% of girls do not pursue these routes

The Computing Education Landscape

- 4 Nations
- Shared concern: digital skills & future prosperity
- 4 approaches to curriculum & qualifications
- Common challenges
- Gender diversity a significant challenge

Scotland

CT embedded from EYs
Optional CS Nat 5 Higher &
Advanced Highers

Northern Ireland

Statutory 5Es, Digital Skills in
other subjects, UICT, discrete
Computing
GCSE Computing & Digital
Technology (programming)

Wales

Curr4Wales Sci & Tech strand
Statutory DCF
CS GCSE or DigTech GCSE

England

NC subject KS1–4 Computing
intro. in 2014 10 years ago
Optional GCSE CS or VTQs
A Level CS or T Levels



Thank you & Questions



Got a question for Anne-Marie? Visit menti.com code 5924 0077



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