

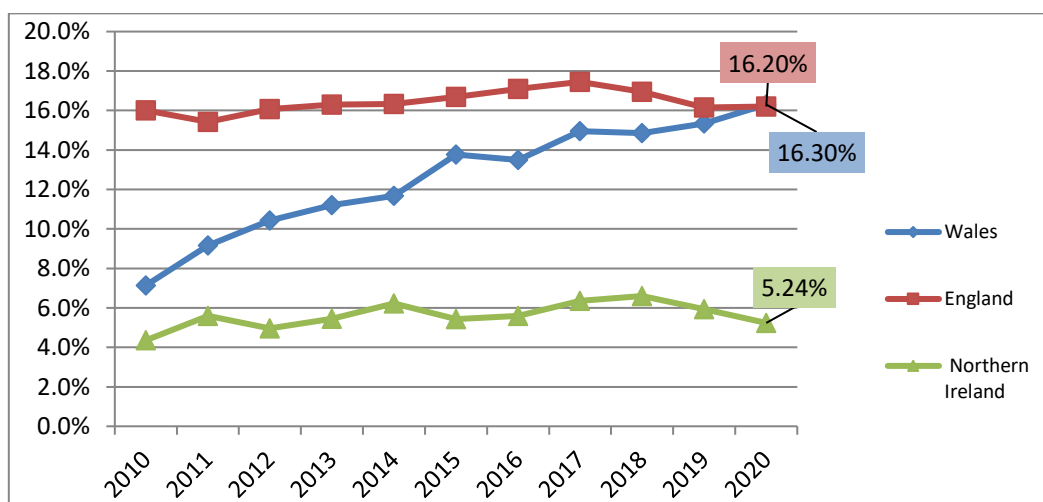
## NEWS RELEASE TO SCHOOLS AND COLLEGES, *September 2020*

### Entries for A-level Mathematics and Further Mathematics are up in Wales

This year Wales has achieved the highest ever proportion of A-level Mathematics students awarded Further Mathematics A-level qualifications, which reached 16.3%. For the first time since 2003 this proportion is the highest in the UK. Entries for AS, A-level Mathematics and Further Mathematics have also increased. According to the Joint Council for Qualifications (2020) the following changes took place in the number of Mathematics and Further Mathematics qualifications awarded in Wales since 2019:

- A-level Mathematics numbers have increased from 3585 to 3711, a 1.9 % increase;
- A-level Further Mathematics numbers have increased from 550 to 605, a 10% increase;
- AS Mathematics numbers have increased from 4627 to 5146, a 11% increase;
- AS Further Mathematics numbers have increased from 457 to 675, a 48% increase.

**Graph 1.** Percentages of A-level Mathematics students taking A-level Further Mathematics in England, Northern Ireland and Wales since 2010 (<https://www.jcq.org.uk/wp-content/uploads/2020/09/A-Level-and-AS-Results-Summer-2020.pdf> )



There were some changes in the gender participation this year:

- Unlike previous years, girls performed better than or at a comparative level with boys in both A-level Mathematics and Further Mathematics;
- The number of girls awarded A-level Mathematics have increased by 3.6%;
- The number of girls awarded a full A-level Further Mathematics has decreased by 6%;
- The number of girls awarded an AS in Mathematics has increased by 9.5%.
- The number of girls awarded an AS in Further Mathematics has increased by 41%.

Whilst the awarding of grades was different this year due to the cancellation of examinations, the FMSPPW is pleased that the outcomes remain strong with many more young people being able to access Further Mathematics qualifications and progress into higher education. Further Mathematics qualifications remain required or preferred for entering some degree programmes in the UK and a few universities require students to take additional and more advanced examinations in mathematics.

Isabella Carter, a former pupil of Archbishop McGrath Catholic High School who studied Further Mathematics through FMSPPW and achieved A\* in both Mathematics and Further Mathematics and is looking to study Medicine, said: *“I believe studying further maths is extremely beneficial, not just for those aiming to study maths at university, but also for any STEM course. Through studying further maths I’ve been able to develop my critical thinking, quantitative reasoning, and problem-solving skills. Consequently, I was able to achieve 5A\*s, including further maths, which has encouraged me to take an additional year studying and change my higher education choices in order to apply to medical school. I am certain that the skills I have developed throughout the further maths course have provided me with strong foundations to undertake a medical degree. Through the further maths support programme, I’ve had great support from my online tutors and frequent in-person revision classes. Something I found particularly interesting was attending, ‘solving unusual mathematical problem’ classes; it was an excellent opportunity to develop my quantitative reasoning and problem-solving skills.”*

While the end of the year was different for learners in Wales due to school closures, FMSPPW were pleased that more than 3000 students accessed an extensive programme of self-study resources and online classes in spring/summer 2020, and, as a result, were able to build confidence to progress for further study. The programme was launched in Spring 2020 in response to the call of Kirsty Williams, the Minister for Education in the Welsh Government, to help students continuing learning mathematics whilst the schools were closed due to Covid-19. One of the participants commented: *“I am impressed with how FMSP has been during the coronavirus time in the way they have been distributing all these materials and resources [...] I would definitely recommend these sessions to other students. It has been very useful to me. This experience and learning style will definitely be beneficial to anyone going onto Higher Education and it will help with how people approach a world where we rely more on technology.”*

The Further Mathematics Support Programme (FMSPPW) funded by the Welsh Government was launched in Wales in 2010 and offers teacher professional development courses, online learning resources, enrichment programmes for KS4 and A-level students as well as live online and face-to-face tuition.

## Notes for Editors

1. The FMSPW is funded by the Welsh Government and is managed by Swansea University, Wales Institute of Mathematical and Computational Sciences (WIMCS).
2. More information regarding the Further Maths Support Programme Wales can be found at: <http://furthermaths.org.uk/wales> . For case studies from students, parents and schools please visit <http://furthermaths.wales/students/case-studies.php>
3. The Wales Institute of Mathematical and Computational Sciences (WIMCS) is a collaborative partnership between the universities of Aberystwyth, Bangor, Cardiff, South Wales and Swansea. It has been set up by the Welsh Government through the Higher Education Funding Council for Wales. WIMCS aims to enhance the standing of Mathematics and Computation in Wales, to foster links with industry, commerce and business, to generate substantial research funding and to provide a forum for education and public awareness of the Mathematical Sciences ([www.wimcs.ac.uk](http://www.wimcs.ac.uk)).
4. All the figures in the report are were taken from [www.jcq.org.uk](http://www.jcq.org.uk)
5. For more information please contact the FMSP Wales Administrator on by email [fmpswales@swansea.ac.uk](mailto:fmpswales@swansea.ac.uk)

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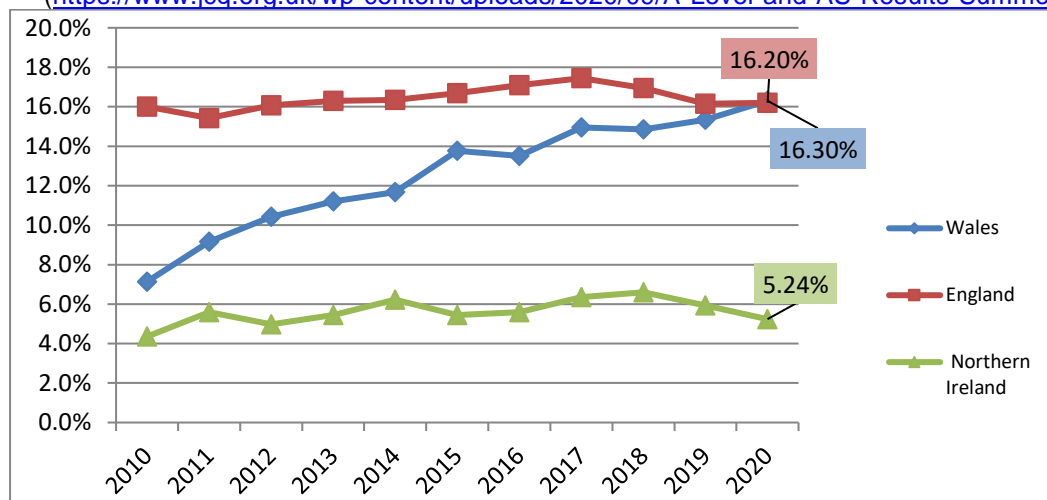
### Cynnydd pellach yn y niferoedd sy'n sefyll Mathemateg a Mathemateg Bellach Safon Uwch yng Nghymru

Eleni dyfarnwyd y gyfran uchaf erioed o gymwysterau Mathemateg Bellach i fyfyrwyr Mathemateg Safon Uwch yng Nghymru sef 16.3%. Am y tro cyntaf ers 2003 y gyfran hon yw'r uchaf yn y DU. Mae'r cofrestrïadau ar gyfer Mathemateg UG, Safon Uwch a Mathemateg Bellach hefyd wedi cynyddu. Yn ôl y Cyd-gyngor Cymwysterau (2020) digwyddodd y newidiadau canlynol yn nifer y cymwysterau Mathemateg a Mathemateg Bellach a ddyfarnwyd yng Nghymru er 2019:

- Mae niferoedd Mathemateg Safon Uwch wedi cynyddu o 3585 i 3711, cynnydd o 1.9%;
- Mae niferoedd Mathemateg Bellach Safon Uwch wedi cynyddu o 550 i 605, cynnydd o 10%;
- Mae niferoedd Mathemateg UG wedi cynyddu o 4627 i 5146, cynnydd o 11%;
- Mae niferoedd Mathemateg Bellach UG wedi cynyddu o 457 i 675, cynnydd o 48%.

**Graff 1.** Canrannau'r myfyrwyr Mathemateg Safon Uwch sydd wedi sefyll Mathemateg Bellach Safon Uwch yng Nghymru, Lloegr a Gogledd Iwerddon ers 2010

(<https://www.icq.org.uk/wp-content/uploads/2020/09/A-Level-and-AS-Results-Summer-2020.pdf>)



Bu rhai newidiadau yng nghyfranogiad rhywedd eleni:

- Yn wahanol i flynyddoedd blaenorol, perfformiodd merched yn well na neu ar lefel gymharol gyda bechgyn mewn Mathemateg Safon Uwch a Mathemateg Bellach;
- Mae nifer y merched y dyfarnwyd Mathemateg Safon Uwch iddynt wedi cynyddu 3.6%;
- Mae nifer y merched y dyfarnwyd Mathemateg Bellach Safon Uwch llawn iddynt wedi gostwng 6%;
- Mae nifer y merched y dyfarnwyd Mathemateg UG iddynt wedi cynyddu 9.5%.
- Mae nifer y merched y dyfarnwyd Mathemateg Bellach UG iddynt wedi cynyddu 41%.

Er bod dyfarnu graddau yn wahanol eleni oherwydd canslo arholiadau, mae'r RhGMBC yn falch bod y canlyniadau'n parhau'n gryf gyda llawer mwy o bobl ifanc yn gallu cyrchu cymwysterau Mathemateg Bellach a symud ymlaen i addysg uwch. Mae cymwysterau Mathemateg Bellach yn parhau i fod yn ofynnol neu yn ffafriol ar gyfer dechrau rhai rhaglenni gradd yn y DU ac mae rhai prifysgolion yn gofyn i fyfyrwyr sefyll arholiadau ychwanegol ac uwch mewn mathemateg.

Dywedodd Isabella Carter, cyn-ddisgybl yn Ysgol Uwchradd Gatholig yr Archesgob McGrath a astudiodd Fathemateg Bellach trwy RGMBC ac a gafodd A\* mewn Mathemateg a Mathemateg Bellach ac sy'n edrych i astudio Meddygaeth: *“Rwy'n credu bod astudio mathemateg bellach yn hynod fuddiol, nid yn unig ar gyfer y rhai sy'n anelu at astudio mathemateg yn y brifysgol, ond hefyd ar gyfer unrhyw gwrs STEM. Trwy astudio mathemateg bellach, rwyf wedi gallu datblygu fy sgiliau meddwl beirniadol, rhesymu meintiol a sgiliau datrys problemau. O ganlyniad, llwyddais i gael 5A\*, gan gynnwys mathemateg bellach, sydd wedi fy annog i gymryd blwyddyn ychwanegol yn astudio a newid fy newisiadau addysg uwch er mwyn gwneud cais i ysgol feddygol. Rwy'n sicr bod y sgiliau rydw i wedi'u datblygu trwy gydol y cwrs mathemateg bellach wedi rhoi sylfeini cryf i mi ymgymryd â gradd feddygol. Trwy'r rhaglen gymorth mathemateg bellach, rwyf wedi cael cefnogaeth wych gan fy nhwtoriaid ar-lein a dosbarthiadau adolygu personol yn aml. Rhywbeth a gefais yn arbennig o ddiddorol oedd mynychu dosbarthiadau 'datrys problemau mathemategol anarferol'; roedd yn gyfle gwych i ddatblygu fy sgiliau rhesymu meintiol a datrys problemau.”*

Er bod diwedd y flwyddyn yn wahanol i ddysgwyr yng Nghymru oherwydd cau ysgolion, roedd RhGMBC yn falch bod mwy na 3000 o fyfyrwyr wedi cyrchu rhaglen helaeth o adnoddau hunan-astudio a dosbarthiadau ar-lein yng ngwanwyn/haf 2020, ac, o ganlyniad, roeddent gallu magu hyder i symud ymlaen ar gyfer astudiaeth bellach. Lansiodd y rhaglen yng Ngwanwyn 2020 mewn ymateb i alwad Kirsty Williams, Gweinidog Addysg Llywodraeth Cymru, i helpu myfyrwyr i barhau i ddysgu mathemateg tra bod yr ysgolion ar gau oherwydd Covid-19. Dywedodd un o'r cyfranogwyr: *“Mae RhGMBC wedi creu argraff arnaf yn ystod cyfnod y coronafirws yn y ffordd maen nhw wedi bod yn dosbarthu'r holl ddeunyddiau ac adnoddau hyn [...] byddwn yn bendant yn argymhell y sesiynau hyn i fyfyrwyr eraill. Mae wedi bod yn ddefnyddiol iawn i mi. Bydd y profiad a'r arddull ddysgu hon yn bendant o fudd i unrhyw un sy'n mynd ymlaen i Addysg Uwch a bydd yn helpu gyda sut mae pobl yn mynd ati i fydd lle rydyn ni'n dibynnu mwy ar dechnoleg.”*

Lansiodd Rhaglen Gymorth Mathemateg Bellach a ariennir gan Lywodraeth Cymru yng Nghymru yn 2010 ac mae'n cynnig cyrsiau datblygiad proffesiynol athrawon, adnoddau dysgu ar-lein, rhaglenni cyfoethogi ar gyfer myfyrwyr CA4 a Safon Uwch yn ogystal ag hyfforddiant byw ar-lein ac wyneb yn wyneb.

## Nodiadau i Olygyddion

1. Ariennir RhGMBC gan Lywodraeth Cymru ac fe'i rheolir gan Brifysgol Abertawe, Sefydliad Gwyddorau Mathemategol a Chyfrifiannol Cymru (WIMCS).
2. Mae rhagor o wybodaeth am Raglen Gymorth Mathemateg Bellach Cymru ar gael yn: <http://mathsbellach.cymru/>. I weld astudiaethau achos gan fyfyrwyr, rhieni ac ysgolion ewch i <http://mathsbellach.cymru/students/case-studies.php>
3. Partneriaeth gydweithredol yw Sefydliad Gwyddorau Mathemategol a Chyfrifiadurol Cymru (WIMCS) rhwng prifysgolion Aberystwyth, Bangor, Caerdydd, De Cymru ac Abertawe. Fe'i sefydlwyd gan Lywodraeth Cymru trwy Gyngor Cyllido Addysg Uwch Cymru. Nod WIMCS yw gwella statws mathemateg a chyfrifiadura yng Nghymru, meithrin cysylltiadau â diwydiant, masnach a busnes, cynhyrchu cyllid ymchwil sylweddol a darparu fforwm ar gyfer addysg ac ymwybyddiaeth gyhoeddus o'r Gwyddorau Mathemategol ([www.wimcs.ac.uk](http://www.wimcs.ac.uk)).
4. Cymerwyd yr holl ffigurau yn yr adroddiad o [www.jcq.org.uk](http://www.jcq.org.uk).
5. I gael rhagor o wybodaeth, cysylltwch â Gweinyddwr RhGMB Cymru drwy e-bostio [fmpswales@swansea.ac.uk](mailto:fmpswales@swansea.ac.uk)