

## **Where are they now?**

### **Maths Graduate Incentive Scheme - Impact Research Report Autumn 2017**

#### **Introduction**

The Maths Graduate Incentive Scheme was commissioned by the Education and Training Foundation (ETF) to support the Government's ambition to improve standards in maths teaching in the Further Education (FE) and Skills sector.

The Scheme provided recruitment incentive awards to FE and Skills providers to enable them to explore innovative ways of addressing a shortfall by recruiting and retaining specialist graduate maths teachers. The maths incentive programme delivered evidence to show how incentive awards can positively improve recruitment.

Phases one and two of the incentive scheme ran in April and October 2014, with a third phase running from March 2015 to early 2016.

As a result of the programme, a total of 280 new teachers were recruited to 178 different providers across the FE and Skills Sector. A summary of the initial impact of the scheme can be found in this final project [report](#) completed in February 2016.

#### **Short impact survey, autumn 2017**

The Foundation issued a short survey in the autumn of 2017 to find out how many of the initially recruited graduates are still working in the sector and to analyse the continued impact of the Maths Graduate Incentive Scheme.

Following on from the results of the February 2016 report, ETF contacted 115 providers involved in the programme who had given permission to be re-contacted and received feedback from 53 providers (46%). A selection of providers were invited to be interviewed in more depth to share their experience and three case studies were filmed at Boston College, Develop Norwich and Adult Education Wolverhampton. The attributed quotes in this report are part of the in-depth interviews and permission to use quotes has been granted.

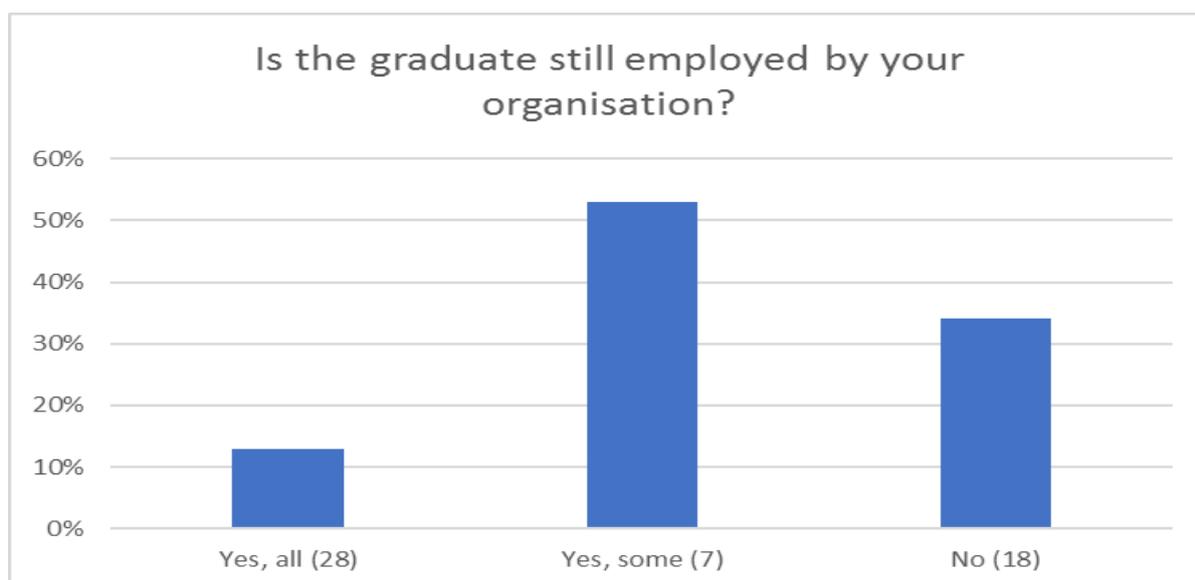
## The results

### 1. Retention

The majority of respondents were from General FE Colleges (70%), Independent Training Providers were the second largest group (21%) with Adult and Community Learning, Third sector and others making up the rest.

**66% of respondents said that all or some of the candidates recruited were still employed by their organisations.** Of the 34% of providers who stated that the graduate(s) they had employed through the scheme had left their organisation, 28% said that the graduate(s) were still employed in the education sector, most at other colleges or secondary schools.

Figure 1: Graduates employed by providers



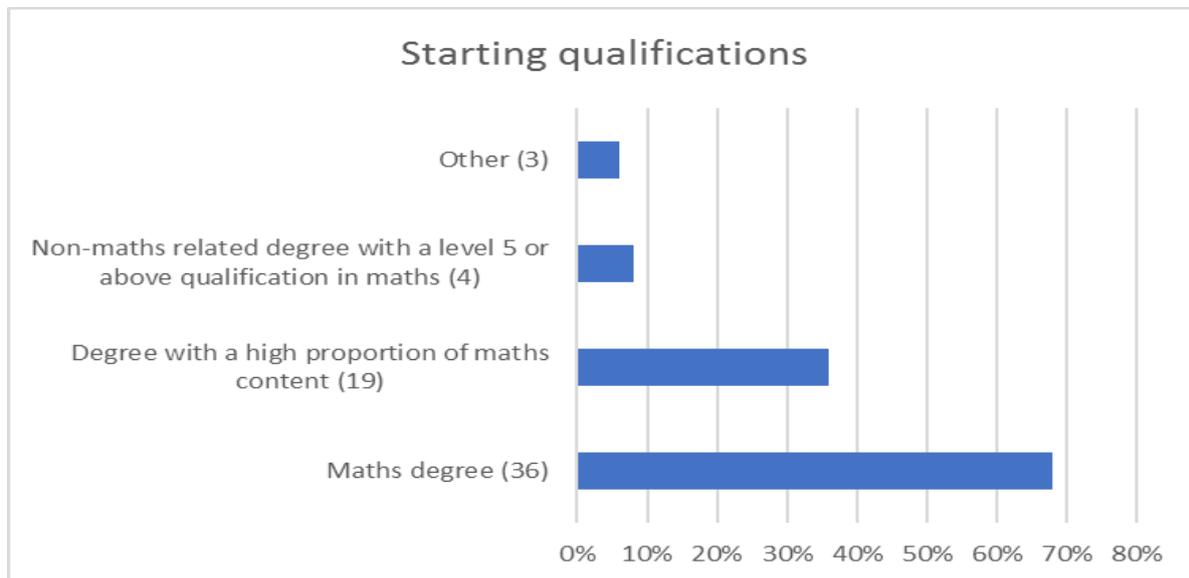
*"The Maths Graduate Incentive Scheme has been beyond successful at Adult Education Wolverhampton. We have increased our retention, we've increased our success rates. Last year our GCSE success rates was over 90%, which was a big increase from the year before."* **Karendeep Aujla, Maths Graduate, now Lecturer and Subject Lead, Adult Education Wolverhampton.**

### 2. Qualifications of the graduates recruited, subjects taught and QTLS

Most graduates recruited through the Maths Graduate Incentive Scheme had a maths degree (68%), 36% had a degree with a high proportion of maths with most others either

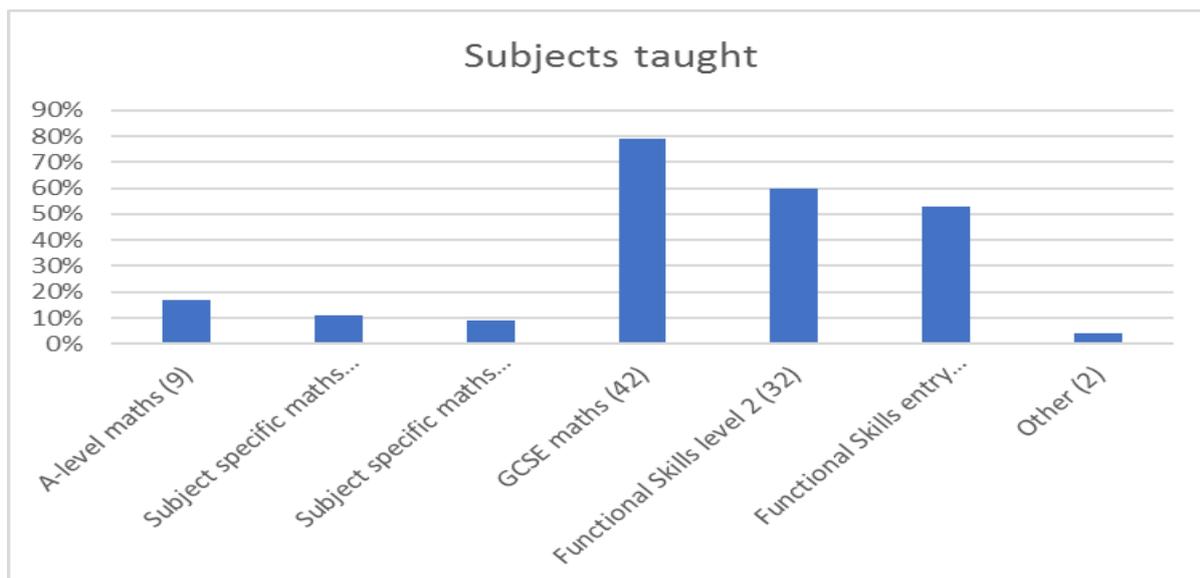
stating a Level 5 qualification in maths or a PhD when first recruited. This was a multiple choice question and providers were able to provide more than one answer.

Figure 2: Starting qualifications



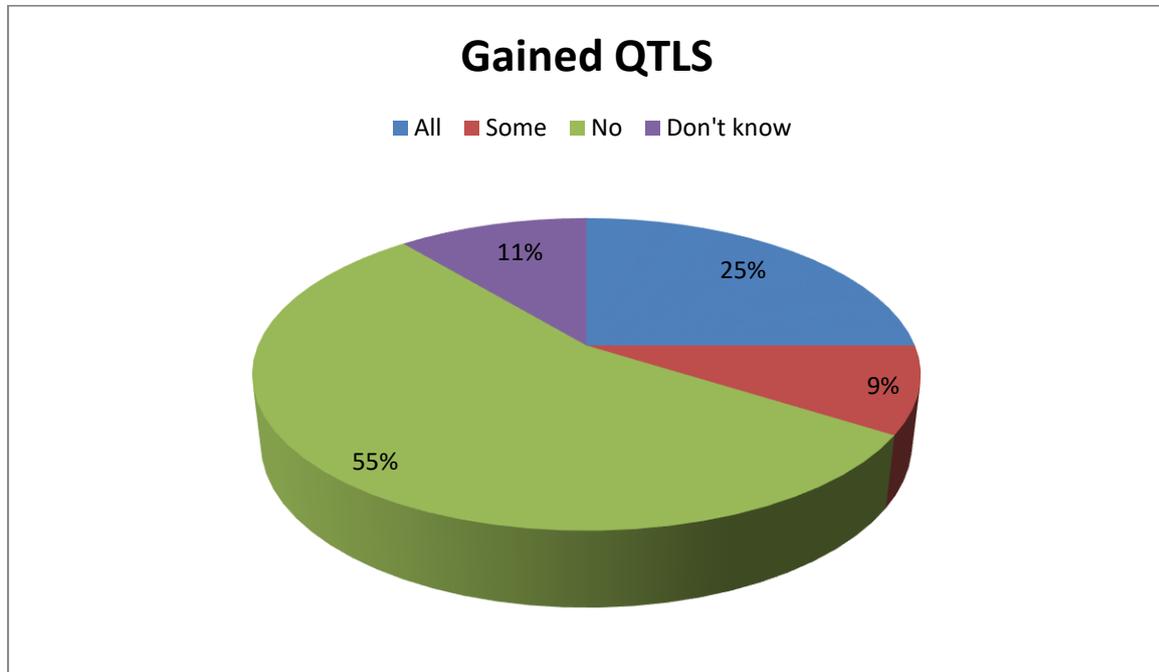
When asked which maths subjects the graduates are now delivering in their providers, most stated GCSE (79%) and Functional Skills (60% delivery Level 2 and 53% delivering Entry Levels and Level 1) with many delivering several subjects across different cohorts (multiple choice question). A smaller number is delivering A-level or subject specific maths at levels 2 and 3.

Figure 3: Subjects taught



The Maths Incentive Award also encouraged providers and new recruits to gain Qualified Teacher Learning and Skills status (QTLS) and the survey results show that of those providers who responded, 34% had graduates who gained QTLS since being employed by that provider.

Figure 4: QTLS



*"The Graduate Incentive Scheme has allowed me to complete my Level 5 Diploma in Education and Training...and I'm currently working towards my QTLS."* **Emily Spall, Maths Graduate and Lecturer, Develop Norwich**

### 3. Providing CPD/Support to other staff

As part of the wider offer provided by ETF around the maths incentive programme, providers were asked to not only support the new recruits but to encourage them to work with others to share effective practice and embed new ideas in the team. This was taken up by the majority of providers, **with 68% reporting that the graduate had provided CPD to other staff.**

When asked to specify some of the support provided, graduates said they had:

- Supported confidence building for vocational staff to advance maths in their own areas.
- Mentored new members of staff.
- Supported staff with sessions focussed on higher level topics as part of the qualification reforms.
- Developing new resources.
- Collaborated in lesson study and group planning activities.
- Become a GCSE course leader.
- Developed a range of sessions on contextualisation for the effective teaching of Functional Skills.

*"[Maths Graduate] Karendeep takes part in staff training and raising tutors' awareness of where they can use maths in their subjects. [These] may not be maths related but it's still important that there's a recognition of the maths demands that subjects actually place on students."* **Sam Robinson-Lerner, Teaching, Learning and Assessment Manager, Adult Education Wolverhampton**

*"It's been very positive having the graduates in the college. It's just changed the atmosphere with the maths delivery completely. The students appreciate it, the staff appreciate being able to interact with them. And management appreciate the fact that we've got that quality delivery aswell."* **Linda Radford, Programme Area Manager for Maths, Boston College**

*Emily [Maths Graduate]...because she's young and it's a fresh approach, she's been able to really push the development forward. It's not just maths in the centre, she's helped standardise best practice across other centres.* **John Greenwood, Head of Centre, Develop Norwich**

#### **4. What has changed?**

When asked if they had received feedback on changes to the delivery of the maths curriculum, all respondents said they had, with the majority of feedback coming from learners, staff and senior managers with 33% also reporting that they had specific comments from Ofsted on changes to maths delivery.

53% said that there had been changes to teaching and learning across the organisation as a result of employing a maths graduate via the maths graduate incentive scheme.

When asked to specify the noticeable changes to teaching and learning, respondents said:

- The graduate has developed work on mindset and how to change this and also using learner voice.
- Increased participation.
- Employing the graduate has enabled succession planning for A level maths teachers.
- The GCSE content was redeveloped by her for the 9-1 specifications.
- A transformation in our delivery of Apprenticeships and a much better pass rate amongst learners.

*"The recruitment of the maths graduates has enabled us to change our delivery programme to a much better quality programme. It's improved our attendance and retention, and also our results have been above the national benchmark."* **Linda Radford, Programme Area Manager for Maths, Boston College**

*"The Graduate Scheme has been a success here because it's enabled me to embed maths in the college more. I've been a part of designing the Maths GCSE course...improving the Functional Skills Maths course and also embedding it into the IT units."* **Emily Spall, Maths Graduate and Lecturer, Develop Norwich**

*"The students...are a lot more engaged. Maths is now a subject that the students aren't trying to avoid - they're coming in to college to do maths. We did notice previously that*

*attendance was a problem...but because [Maths Graduate] Emily's made it engaging and relevant... the students really respond to that."* **John Greenwood, Head of Centre, Develop Norwich**

## 5. What do the graduates think?

*"I've gone from being completely inexperienced in teaching to being, in 4 years, a full-time lecturer and a co-ordinator. My observations always come back as being really positive...So it's really helped to build my confidence and it's helping me to become the best teacher that I can be."* **Amy Lynch, Maths Graduate, now Lecturer and Subject Co-Ordinator, Boston College.**

*"The graduate scheme was a good way for me to grow as a teacher...the best thing about it for me was - because I was less experienced - it allowed me to study whilst being able to apply what I was studying."* **Karendeep Aujla, Maths Graduate, now Lecturer and Subject Lead, Adult Education Wolverhampton.**

*"The Graduate Scheme has been...a massive positive. I'm so happy in my job and I never thought I'd be this happy...I have so much experience that I've gained from teaching here and being able to train alongside...teaching has meant I can try out things. I've been able to develop my teaching a lot more."* **Emily Spall, Maths Graduate and Lecturer, Develop Norwich**

*"Results for maths have dramatically improved and it's also a lot better than the national average...I was really proud of my learners."* **Emily Spall, Maths Graduate and Lecturer, Develop Norwich**

## 6. Has it worked?

The final section of the survey asked providers for overall comments and challenges they identified:

- There was an extreme shortage of maths teachers and this scheme enabled us to recruit highly able graduates who were then able to complete their PGCE at the College. We therefore effectively 'grew our own' maths tutors who worked well with colleagues and understood the culture and ethos of the College. They also have the very best interests of the learners at heart.
- The maths graduate recruitment successfully enabled the college to begin to increase its capacity to recruit maths teachers to the extent that we have an exceptionally capable team of teachers delivering functional skills maths and GCSE.
- The scheme allowed the recruitment of an excellent member of staff who has developed well and is making a strong contribution to the teaching and learning of maths.
- An amazing benefit to our company. Excellent programme for training providers.
- The scheme was a key part of our Maths workforce development and enabled us to quickly increase our capacity to deliver GCSE maths. It has been one of the factors

behind the improvement in our GCSE maths outcomes. It had much more impact than other support programmes/funding provided.

- Q10 is difficult as we have seen improvements in our maths achievement however we have employed many other FS specialist across the company and so this cannot solely be attributed to our recruitment of the maths graduate but has certainly been involved in this process.
- A useful scheme to incentivise maths graduates, although they become very mobile as such a shortage of teachers on higher salaries / greater career progression in schools than in General FE colleges.

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*"[The Maths Graduate Incentive Scheme] has really benefited us. With the increased success rate and the increasing number of students there's a real energy and buzz around the centres. Maths is seen as something to be excited about. Students are encouraging other students to...join maths classes. It's been a real success."* **Sam Robinson-Lerner, Teaching, Learning and Assessment Manager, Adult Education Wolverhampton**

*"Seeing the students come in, in September, highly de-motivated...they don't want to be here, they don't want to do maths again, they're really lacking in confidence...to then see them at the end of the year, on results day, when they pass, that's the best feeling in the world."* **Amy Lynch, Maths Graduate, now Lecturer and Subject Co-Ordinator, Boston College.**