AI and data science postgraduate conversion course scholarship programme

Second interim report

Report to the Office for Students by the Careers Research & Advisory Centre (CRAC)

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1 Executive summary

Through the Office for Students (OfS), the Department for Science, Innovation and Technology (DSIT) funds a programme of scholarships for students to study postgraduate conversion courses in artificial Intelligence (AI) and data science. The three aims of the programme are to increase:

- The diversity of graduates entering the UK AI and data science workforce;
- The supply of digitally skilled workers, by converting graduates who did not study a related or STEM degree;
- The extent of industry support in helping to diversify the UK AI and data science workforce.

In this programme, scholarships are particularly intended to encourage more women, Black students, and students from lower socio-economic backgrounds to take conversion courses at universities and colleges in England. These groups are currently significantly under-represented on these courses and in AI and data science industries. To be eligible for a scholarship, students must meet the national and/or residency criteria that would entitle them to apply for a Postgraduate Master's Loan, to ensure that the funding is generally targeted at UK students.

Funding for 818 £10,000 scholarships was made available in 2023-24 and funding for a further 818 for 2024-25 has been confirmed. The scholarships are available at 31 higher education institutions in England.

CRAC was appointed to evaluate the programme and assess whether its aims are being achieved, its design and implementation are effective, and if it provides value for money.

This is the second in a series of interim reports intended to provide up-to-date information about participation in the conversion courses as of spring 2024, including insights into the progress of scholarship allocations, an overview of student enrolment numbers, an initial glimpse at the profile of current students, and an update on industry support for the scheme.

Overall demand for these courses has been high, with over 4,700 students already enrolled and a total of approaching 5,000 students expected to eventually have enrolled within the 2023-24 academic year, exceeding original projections.

With regards to scholarship provision, we can report that over 90 per cent of the scholarships allocated to providers have been awarded. Though, an overall shortfall of around 50 scholarships is expected in relation to the potential overall funding for 818 scholarships in 2023-24.

Initial survey data suggests that the targeted scholarships are having the desired effect of diversifying the student cohort. The proportions of female, disabled and Black students amongst scholarship holders are all significantly higher than amongst students without scholarships, which has increased these proportions for the entire cohort.

Less positively, as highlighted in our first interim report, providers have been far less successful in attracting co-investment from industry for scholarships, than hoped, with only around 26 scholarships funded by industry pledged or confirmed to date (across the two years of the current programme). On the other hand, in-kind investment from industry has been substantial (£6.7m.) but in the six months since the first interim report, this has changed very little.

As the programme moves forward, we highlight a few issues which are worthy of attention:

- There is variation in the successful allocation of scholarships across different providers. In some, demand far outstripped supply, however, one third of providers reported that they were not on track to allocate all their scholarships for this academic year.
- Several providers reported both a lack of UK students applying for the conversion courses in the first place and, especially, a lack of UK students who met the eligibility criteria for OfS scholarships.
- Some indication that the scholarship's value of £10,000 is increasingly inadequate is emerging. Given that the cost of living and more specifically postgraduate course fees have increased. It is now commonplace for home fees for a course in the programme to be more than £10,000, so the scholarship no longer fully funds home student course fees and contributes to living costs. This erosion of perceived scholarship value could contribute to limited demand from eligible students, although we have no direct evidence for this yet.

2 Introduction

As outlined in our first interim report[1] in October 2023, DSIT is funding (through the OfS) a programme of scholarships to support students studying postgraduate conversion courses in AI and data science.

The objectives of the programme are:

(1) to increase the diversity of graduates entering the UK AI and data science workforce;

(2) to increase the supply of digitally skilled workers by converting graduates who did not study a related or STEM degree (a degree in Science, Technology, Engineering or Mathematics); and

(3) to increase industry support in helping to diversify the UK AI and data science workforce.

Following a successful programme of scholarship provision spanning three academic years (2020-21, 2021-22 and 2022-23, referred to as 'Phase 1'), a new scholarship programme has been funded for the academic years 2023-24 and 2024-25 (referred to here as 'the programme' or 'Phase 2' when making comparisons with Phase 1). In this new programme, funding was initially provided for the delivery of 818 scholarships in 2023-24, worth £10,000 each. In November 2023, funding for a further 818 scholarships was announced for the 2024-25 academic year as a result[2] of the amount of scholarship and in-kind funding leveraged by providers and Group GTI, the programme's commissioned employer engagement partner, reported in the last interim report.

Scholarships are targeted at underrepresented groups in the UK AI and data science workforce, prioritising women, Black and disabled students, and students from lower socio-economic backgrounds, to support them to study conversion courses at universities in England. Recipients of scholarships are required to meet the nationality and/or residency criteria that would entitle them to apply for a Postgraduate Master's Loan[3], ensuring that funding is targeted at UK students.

This is the second interim report of the Careers Research & Advisory Centre's (CRAC) evaluation of the programme, with the main objective of providing up-to-date information about participation in the conversion courses as of spring 2024, including insights into the progress of scholarship allocations, an overview of student enrolment numbers, an initial glimpse at the profile of current students, and an update on industry support for the scheme.

2.1 The evolving evidence base

The evaluation covers the two academic years of the programme (2023-24 and 2024-25) and this interim report is based on data roughly at the midpoint of the 2023-24 academic year. The evaluation design and approach remain as described in the first interim report[4], with these high-level aims:

- An impact evaluation to understand the extent to which the programme is delivering its strategic aims and what has contributed to that performance;

[1] https://www.officeforstudents.org.uk/publications/evaluation-of-artificial-intelligence-and-data-science-scholarship-funding/
[2] In line with the scheme's expressly stated aim to encourage industry investment.
[3] https://www.gov.uk/masters-loan/eligibility
[4] This report should be read in conjunction with the first interim report which describes the evaluation programme in greater detail. For brevity, some details have been omitted here.

- A process evaluation to understand if the programme has been designed and implemented effectively, and understand which parts work best and why;
- Assessment of the return on investment of the programme and value for money.

To date, evaluation activities have included:

- An analysis of data on enrolments, scholarship awards, and industry engagement submitted by providers to OfS during March 2024;
- A programme-wide survey of students currently enrolled on conversion courses, including those with scholarships (up to March 2024);
- Two rounds of dialogues with course providers (autumn 2023 and February/March 2024);
- Shared learning arising from a well-attended provider workshop (in March 2024).

3 Progress to date: courses and students

3.1 Courses

This report concerns the 57 courses[5] eligible for scholarships that have been offered in the 2023-24 academic year by 31 English providers, of which seven are participating as a consortium headed by Coventry University.

As outlined in the first interim report, there is significant variety in the courses offered. Thirty-five are focussed on data science, 15 on AI and seven a combination of both. Most courses are "blended" (i.e., delivered as a combination of in-person and online teaching), while five are online-only; the majority (40) offered both part-time and full-time options, 14 are full-time only, and three are part-time only. Thirty-four courses had a single intake in autumn 2023, while 22 courses have had at least one further intake since then (mostly in January 2024). One course had its first intake in January 2024.

3.2 Enrolments to date: headline numbers

Overall, in their proposals, providers predicted that 4,200 students would enrol on their courses in 2023-24 intakes. Up to this point, according to provider reports submitted to the OfS, 4,707 students have enrolled, which represents 112 per cent of the predicted enrolment - a clear indication of robust demand for these courses overall.

However, at the provider level, the situation is somewhat nuanced. Fourteen providers have reported enrolments below target, and provider-reported data for intakes in early 2024 may not be final.[6] Additionally, five courses (offered by three providers) have planned further intakes before the end of the 2023-24 academic year. While these specific enrolments remain unknown, we estimate, based on historical trends and provider projections, that the cumulative total for intakes during 2023-24 could rise by a further 100-200 students.

3.3 Scholarship allocations to date: headline numbers

Funding for 818 scholarships, worth £10,000 each (total funding of £8,180,000) was available to providers for students on intakes in the 2023-24 academic year. Early in the year, one provider reported to the OfS that it would not be able to meet its quota of scholarships, some of which were then redistributed to other providers that reported a demand for more. The number of scholarships available to different providers for this year ranged widely from nine (Aston University) to 126 (the University of Birmingham), partly reflecting different numbers of courses offered. As of March 2024, 722 scholarships have been awarded, according to providers, with a further 28 committed[7], leaving 68 unallocated. Thus, almost 92 per cent of the planned scholarships for 2023-24 intakes have been allocated to date (Table 1). One main objective of the programme is an increase in the total number of scholarships being funded. This has been successful evidenced by an increase in

[5] This ignores variants with different delivery modes or with/without an integrated placement, of which there are five.
[6] Enrolment data are not yet available at provider level within the Coventry-led consortium.
[7] Committed means that a provider has selected a student to be the recipient of a scholarship, and funds have been contractually committed, but no funding has been delivered to the student.

the number of scholarships being funded from 440 in 2022-23 (in the third year of the Phase 1 programme[8]) to 722 in 2023-24, a 64 per cent increase.[9]

Table 1 Scholarship allocation for 2023-24 intakes to date

	Target	Allocated	Committed	Unallocated
Number	818	722	28	68
Proportion		88%	3%	8%

Eleven providers (around one third) reported to the OfS in March that they were not on track to award all their targeted scholarships in 2023-24, while three providers will have further intakes this year. Given provider projections, we expect that a modest further number of scholarships will be allocated to students in these course intakes. However, based on the overall reported shortfall from provider reports, it seems likely that around 50 of the 818 originally targeted scholarships will not be awarded this year (six per cent of the total).

Providers report an average success rate of 37 per cent[10] for an applicant being awarded a scholarship, with the success rate at individual providers ranging from 6 per cent to 76 per cent. The proportion of students who benefit from an OfS scholarship enrolled at each provider currently ranges widely from 5 per cent to 78 per cent (with an average of 27 per cent). This too could suggest some variation in the extent of competition for the scholarships.

[8] The total number of scholarships allocated across all the three years of the Phase 1 programme was 952 (out of 1000 for which funding was available).
[9] Caveat: The Phase 1 programme involved fewer courses and providers.
[10] These figures should be treated with caution as the data submitted by providers could include ineligible applications from non-UK-based individuals.

4 Update on industry support

4.1 Overall support

Table 2 provides a summary of the support provided by industry partners to date. The data is based on submissions from providers to the OfS in March 2024 and on support reported by the industry engagement partner Group GTI. Although there have been fluctuations in the reported amounts of industry co-investment of different kinds negotiated by the providers themselves since the levels reported previously, the overall amount of support has remained largely unchanged since the autumn 2023. This is because while some new funding has been secured, other previously pledged funding has not materialised. Nonetheless, there has been an increase in funding overall due to the successes of the programme's industry partner Group GTI in securing seven funded scholarships, further discussed below.

Table 2. Total industry co-investment to March 2024 (proposed and pledged/confirmed)

	Total industry co-investment[11]	
	Proposed £	**Pledged or confirmed to date £**
Total co-investment	7,189,791	6,983,360
Scholarship co-funding	1,080,000	285,859
Other co-funding	6,109,791	217,000
In-kind support (total)		6,480,501
Industry in-kind support		6,289,850[12]
Public sector in-kind support		190,651
Total industry co-investment		6,792,709

4.2 Scholarship co-funding

According to the industry co-investment data submitted to the OfS in March 2024, nine providers have reported industry funding or co-funding for a total of 19 scholarships[13] from 12 different industry partners.[14] Two of the industry-funded scholarships have a value of more than the £10,000 programme-funded scholarship value. As reported in the autumn (first) interim report, co-funding for a further 11 scholarships (not shown in Table 2) has also been pledged by three of the providers themselves (based on CRAC's dialogues with

[11] Industry support co-investment is calculated on that which is confirmed over the two years of the current programme. Some scholarships and support reported here will be awarded in the 2024-25 year. Confirmed scholarship co-funding of £20k is included in the table, but the associated scholarships are not counted below as they will be offered after the period of this evaluation (i.e., in 2025-26 and 2026-27).

[12] £3,762,000 of in-kind support was donated in the form of SAS Viya software licences.

[13] 18 full and two partially funded (which will be match-funded by the provider), equating in total value to 19 full scholarships.

[14] The 19 scholarships reported here are fewer than the 22 reported in the first interim report of this programme because three pledged scholarships did not convert into funded scholarships.

providers). A clear conclusion of the first interim evaluation report was that providers had found it much harder than expected to elicit industry support for scholarships. As of this report, based on provider reports to the OfS, their dialogues with us and experiences exchanged at the provider roundtables, we can report that this picture has not changed.

From the scholarship co-funding reported by the providers, the programme's industry engagement partner Group GTI were responsible for securing five of these scholarships (from two industry partners) to the value of £50k through their engagement with industry. Group GTI have also reported to OfS that they have secured a further seven scholarships[15] (from two industry partners) to a value of £70k that have not yet been reported through provider monitoring reports. These 12 co-funded scholarships were the result of two years of engagement with industry partners led by Group GTI. The engagement involved outreach to 2,196 potential industry partners and 151 key industry decision makers, the creation of a brochure of courses within the programme, the creation and nurture of a closed LinkedIn group for data science and AI students, employers and provider contacts[16], and three online webinar events targeted at connecting better with providers and providing employability guidance to students. Despite the industry outreach activities of Group GTI, an evaluation of the project concluded that the desired outcomes of the programme were not being achieved and the contract with Group GTI was concluded in May 2024.

[15] On top of the 5 that they secured in 2022
[16] With over 1000 members.

5 Insights from student surveys

In the current programme, there is no requirement for providers to report detailed data about course enrolments and student profiles, as was necessary in the Phase 1 programme. Rather, analysis of data about students will be undertaken using administrative data supplied by providers to the Designated Data Body (DDB). While this change is welcomed in so far as it reduces the data collection and/or reporting burden upon providers, it delays evaluating the profile of students and scholarship recipients on the courses, because the data emerge retrospectively. In the meantime, some information is available from the student surveys administered by CRAC, which can shed some light upon whether the courses are engaging the sorts of student that the programme envisages. The insights outlined in this section are drawn from the first two waves of our student survey, carried out in November 2023 and March 2024 for students who started their conversion courses in autumn 2023 and January 2024 intakes, respectively. These comprised a total of 453 substantively complete responses from students at 28 providers, giving a response rate of just under 10 per cent.[17]

Results should be treated with some caution as they may not be representative of the entire student cohort. Scholarship students were over-represented in the response sample and as they were essentially all UK-domiciled students, this impacts on the nationality profile seen in the response sample as a whole.

5.1 Profile of students

Table 3 displays demographic information about scholarship and non-scholarship respondents, in terms of the key eligibility characteristics targeted in the programme. Among our 453 respondents, 205 had been awarded a scholarship. This was 45 per cent of survey respondents, whereas scholarship awardees comprise around 16 per cent of the overall cohort (based on scholarship award data and enrolments reported by providers, summarised in the earlier section). Survey responses show scholarship awardees were over-represented in the sample. One possible reason for this is these students may be positively predisposed to respond to an evaluation survey related to their funder.

Overall, 45 per cent of respondents were female, although this was 56 per cent amongst those with a scholarship and 37 per cent for other students. The average age was 31 years old (range 21-53 years), and 51 per cent of non-scholarship students are 30 years old or over and 39 per cent of scholarship students (i.e. 46 per cent overall). Ten per cent of all respondents identified as having a disability, but this was higher at 15 per cent amongst scholarship students and only five per cent amongst those without a scholarship. In the survey, disability was broadly defined, and for the majority (76 per cent) of those reporting a disability this was on the basis of a mental health condition, specific learning condition or neurodivergence, rather than a physical disability or condition.[18]

Overall, 23 per cent of respondents stated that their country of origin is the UK, with four per cent from an EU nation and 72 per cent from elsewhere. Amongst those from outside the UK or EU, 60 per cent were from either Nigeria or India (i.e. 46 per cent of all respondents).

[17] This is a minimum and an estimate because only providers know how thoroughly, or exactly to whom, they circulated survey invitations.
[18] Disability is self-identified in the survey.

Summarising the limited survey data available to date confirms that the profile of scholarship students is more diverse than the profile of non-scholarship students, in these targeted respects. From this difference, we infer that the scholarships are having the desired effect of increasing the diversity of the student body in these respects. However, as more data become available over the course of the evaluation, the picture may evolve.

The findings for Black and ethnic minority students need to be interpreted carefully due to the small sample sizes (only UK students are included due to norms for reporting ethnicity).

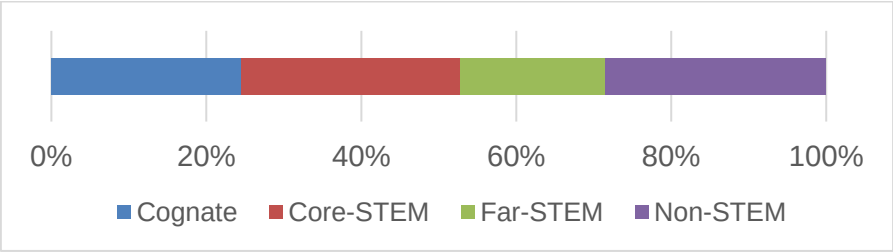
Table 3. The profile of students (based on survey data)[19]

	Female	Aged 30+	Disabled	Black (UK only)	Ethnic minority (UK only)
Scholarship	56%	39%	15%	17%	53%
Non-Scholarship	37%	51%	5%	9%	36%
Total	45%	46%	10%	14%	48%
N	*451*	*440*	*453*	*105*	*105*

5.2 Students' first-degree subjects

One of the aims of the programme is to increase the supply of digitally skilled workers to the UK workforce. One way of achieving this is to encourage people who did not study AI or data science related degree subjects to study a conversion course. Amongst our respondents, 24 per cent had a cognate first degree, 28 per cent a degree in a 'Core-STEM' subject, 19 per cent a Far-STEM background and 29 per cent a non-STEM degree (Figure 1).[20] This indicates that, overall, the courses are appealing to students with a wide variety of first-degree backgrounds as intended, with almost half from non-STEM or Far-STEM backgrounds. Preliminary analysis shows that just over half of scholarship students in the survey were from a non-STEM or Far-STEM background.

Figure 1. First-degree subject of student survey respondents (N=449)



[19] Because some respondents did not respond to some questions in the survey the number of responses (N) may vary slightly in this report. Where relevant we provide an indication of the overall response numbers.

[20] In this analysis, cognate was taken to mean data science, AI, or computer science; core-STEM subjects were physical sciences and engineering; far-STEM were other STEM subjects (such as biological sciences)

5.3 Students' prior circumstances

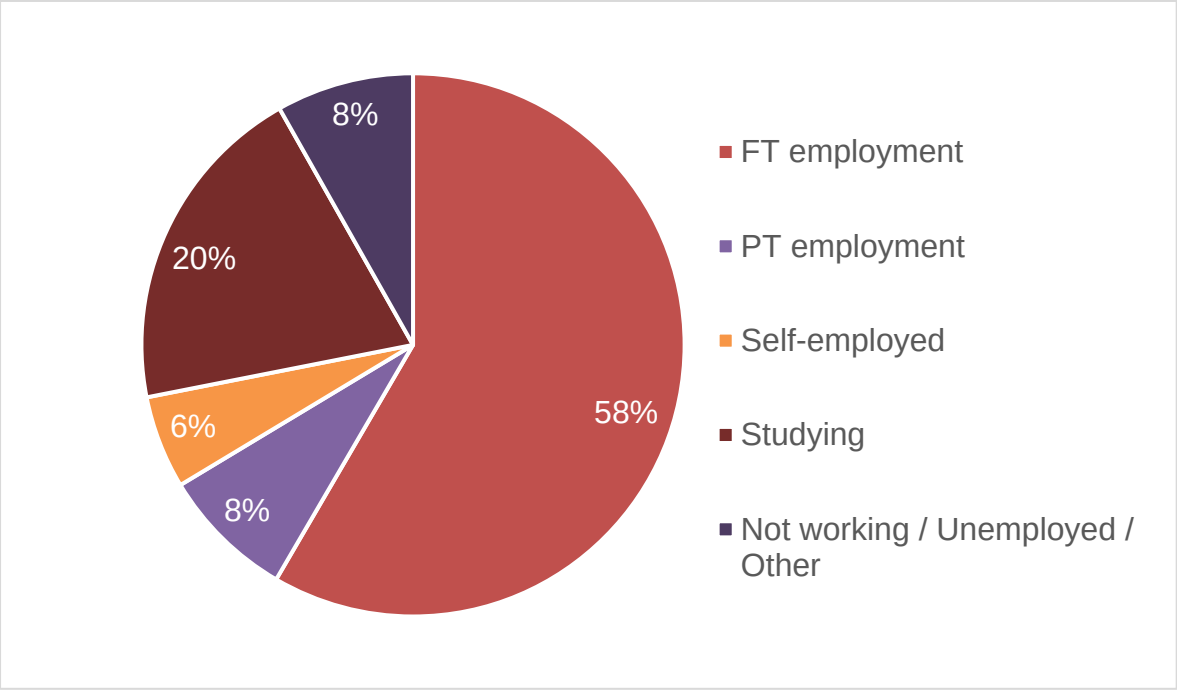
On average, respondents had graduated from their undergraduate degree courses six years before starting their course, with more than 42 per cent having graduated over five years previously. Only 15 per cent graduated in the 2022-23 academic year, i.e. students who had progressed immediately from previous degree study. The highest level of prior qualification was undergraduate degree for 79 per cent of respondents, with 21 per cent already having some form of postgraduate qualification.

These results add further weight to evidence that the programme is meeting its objectives, showing the courses are drawing in a mix of students, including mature students who may be seeking to re-skill or upskill, as the programme sought.

Further, over half of respondents (58 per cent) indicated that they had been employed full-time in a long-term job before starting the course. In total, 72 per cent had been working (Figure 2), while 20 per cent had been in some form of study, and a small proportion (8 per cent) were unemployed or not working.

Amongst those who had been in employment, around one quarter (24 per cent) reported that their work was in the information technology (IT) and communications sector, with the remainder spread across a wide range of sectors. This suggests that students had been in a wide range of labour markets.

*Figure 2 Prior circumstances of student survey respondents (*N=*452)*



5.4 Mode of study

In our study, 88 per cent of the participants indicated that they were studying their course full-time. This implies that our survey might have an over-representation of full-time students, as the monitoring data reported to the OfS by the providers suggests that nearly a quarter of

the student population under consideration are studying part-time. Of those who reported in the survey that they were studying on a part-time basis, 73 per cent were continuing to work in their existing job while they studied.

In the context of the evaluation, the results in this section should be regarded only as an early indication of likely student survey results during the programme and may not be fully representative of all students on the courses. However, many of these elements of preliminary evidence give us some indication that the courses are enrolling the sorts of students envisaged and that the scholarships are having the effect of diversifying the overall student cohort.

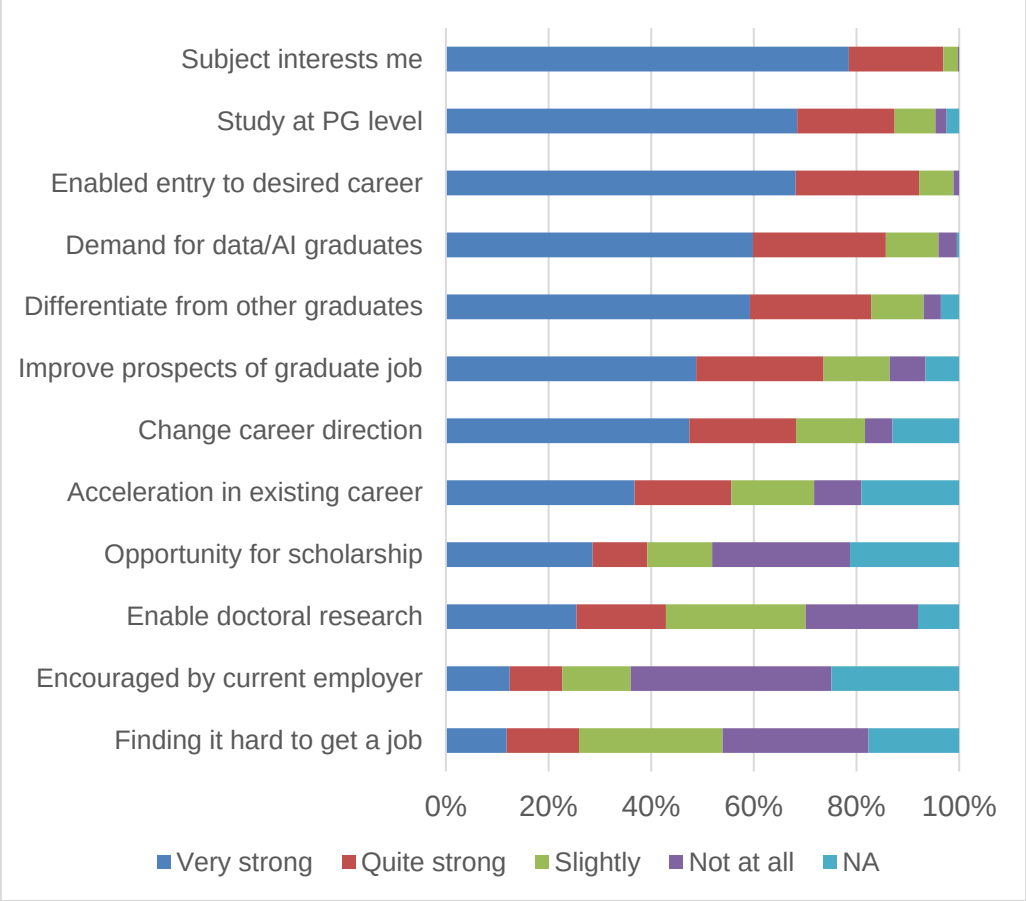
6 Study motivations and experiences

6.1 Motivations for study

Within the evaluation, the surveys give some understanding of students' motivations for selecting their course, or indeed a conversion course at all. Survey responses also provide some insight into students' experiences in the first weeks of their course (up to the point of survey, which was around two months after they had started).

As for motivations to do the course, all the respondents cited that they were interested in the subject and 87 per cent reported that they were strongly interested in studying at postgraduate level. The next six most strongly reported motivations were all related to their careers (see Figure 3). Each of these six career-related motivations was considered a strong driving factor by at least 50 per cent of the respondents. These responses suggest that career-related motivations are very strong and provide some evidence that large numbers of the respondents are planning to join the AI and data science workforce in the future, a key aim of the programme.

*Figure 3. Reported strength of potential motivations for taking a conversion course, for student survey respondents (*Ns *= 443 - 453[21])*



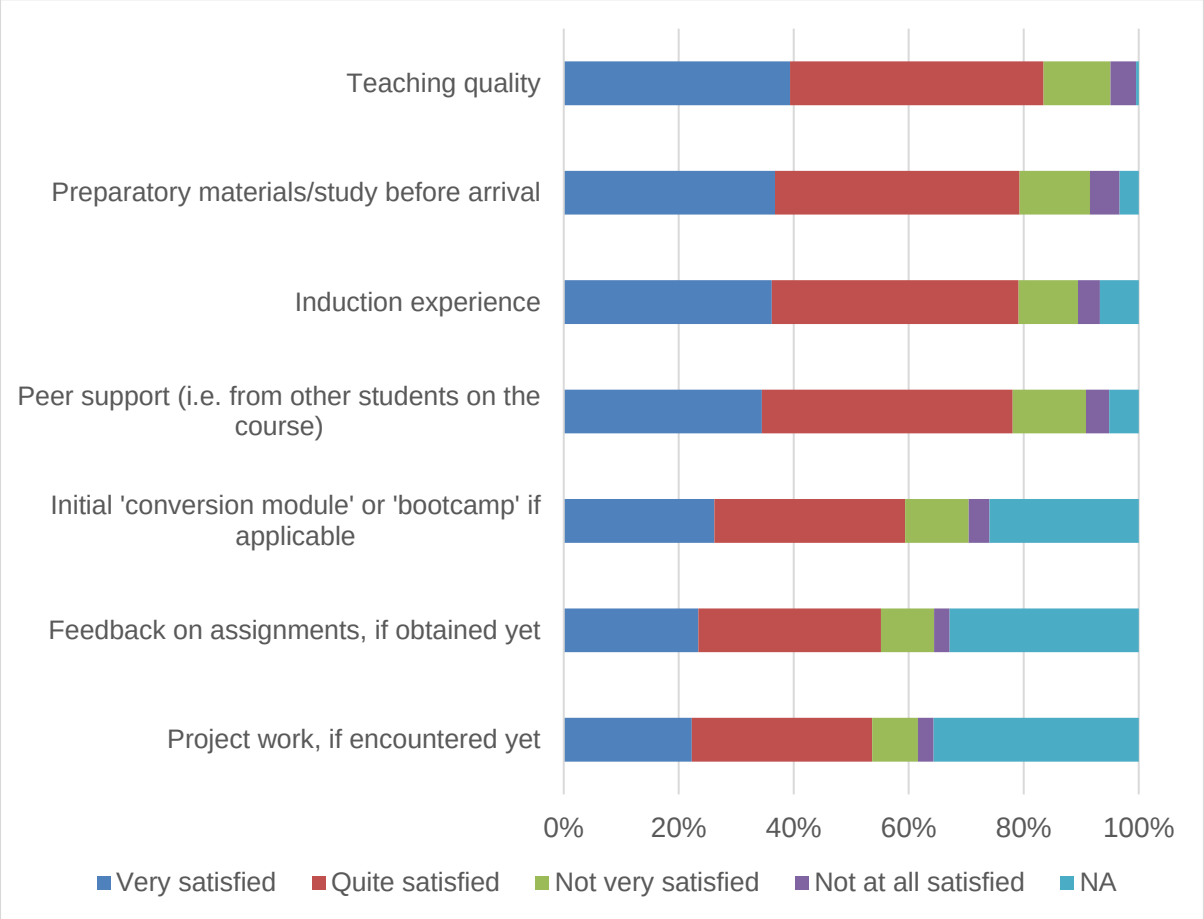
[21] Not all but over 95 per cent of respondents provided an answer to these questions.

Of interest is that over a third (35 per cent) of respondents reported that their employer encouraged them (even if only slightly) to apply for the course. This appears to be an increase compared with results from surveys in the Phase 1 programme (24 per cent) and may suggest that employers are increasingly seeking to upskill their workforces in AI and data science skills.

6.2 Early satisfaction with the course provision

Overall, based on the responses to our survey, satisfaction with course provision was generally high. For each aspect of course provision surveyed most responses were “very satisfied” or “quite satisfied” (see Figure 4). The proportions who were dissatisfied with one or more areas were in the minority (below 18 per cent, across the board). Overall, at this early stage, and based on our survey data, students seemed mostly to be satisfied with their courses. Broad comparison suggests that these results are very similar to those observed from students at a similar stage on courses during the Phase 1 programme.

Figure 4. Satisfaction with course provision amongst student survey respondents (Ns=440-449)



7 Funding of study: The role of the scholarship

Amongst those who received a scholarship, just over one third (34 per cent) said that they would not have enrolled on the course without the scholarship, while 28 per cent were unsure (and 38 per cent said they would have enrolled nonetheless). This suggests that for a substantial proportion of scholarship recipients (somewhere between 34 and 62 per cent), the presence of the scholarship was a key factor in their decision to enrol.

Over one in six (18 per cent) of scholarship students responding to the survey reported that they had also taken out a UK Postgraduate Master's Loan in order to pay their course fees. On the other hand, 27 per cent of survey respondents reported using their own means to fund their studies and a similar proportion (28 per cent) reported being reliant on family financial help. These results suggest that scholarship students are having to rely on funding beyond the scholarship itself, even for fees. We anticipate revisiting these results once a larger student survey response sample has amassed, so that a more sophisticated and robust analysis can be undertaken.

On the basis of the results to date, there were only a handful of cases where an employer was contributing anything financially, despite the encouragement by employers for employees to undertake this level of study recorded within results about student motivations outlined in section 5.1 of this report.

8 Emerging issues from provider discussions

Our conversations with providers yield a wealth of information about their experiences in developing and implementing conversion courses. This information will be invaluable for gaining qualitative insights into what aspects were successful and what areas need improvement, which we will address later in this evaluation. For now, we highlight a few areas where we believe some preliminary observations and comments would be beneficial.

8.1 Maturing courses and new provision

Providers within the Phase 1 programme[22] received funding to support the costs of setting up new AI and data science conversion courses in addition to funding for scholarships. Many of those providers in the Phase 1 programme which are also participating in the current programme report that those 28 courses have become more robust and self-sufficient after 'bedding-in' over the last few years. Many important factors, such as teaching capacity, British Computer Society accreditation[23], student recruitment pipelines and industry connections and placements, have matured and allowed the courses now to flourish.

This kind of evolution is important to bear in mind when considering the challenges for some of the providers new to the programme who have developed new courses for it, as well as in the expectation that some of the providers are adding further courses, due to be launched in the autumn of 2024. For these providers, the context has changed, as in this programme they have not received any programme funding specifically to develop this new provision, and therefore all investments needed to set up the courses will need to be made from their own funds.

8.2 Evaluating scholarship applications

One of CRAC's activities during the current evaluation is to host a series of programme-wide workshops to encourage formative engagement between providers, with the aim of sharing learning and good practice.[24] At the second programme-wide workshop (held online in March 2024) a key topic selected for discussion was how providers should evaluate scholarship applications in relation to students' socio-economic background (SEB), as low socio-economic background is now a priority eligibility criterion alongside female, Black, and disabled students.[25] Discussion revealed a range of approaches to determine what should be regarded as a 'lower' SEB in the context of a postgraduate course, as this was not tightly specified by OfS in programme guidance, and how they assessed this. Some extended this discussion to scholarship application assessment more broadly.

[22] 21 of the 31 providers in the current programme also took part in the Phase 1 programme, although not necessarily with the same courses

[23] The British Computer Society is the chartered institute and professional body for IT. Its accreditation aims to *"validate the high quality of [courses]"* – (https://www.bcs.org/deliver-and-teach-qualifications/academic-accreditation/)

[24] More detailed description of the purpose and implementation of these workshops is outlined in the first interim report of this series.

[25] It is worth noting that, while the Phase 1 programme's scholarship eligibility criteria did include students from POLAR 1 & 2 (which identifies areas with underrepresentation of young people in higher education), Phase 2 has newly formalised low SEB as an eligibility criterion for scholarships for which POLAR data cannot be used as a proxy. The OfS suggests the use of IMD data and other individualised measures e.g. household income to assess this.

On a practical level, many providers reported (in updates to the OfS and dialogue with the evaluation team) that evaluating applications for scholarships was resource-demanding, often involving reading large numbers of motivation letters and/or conducting numerous interviews. A standardised approach adopted by providers in the Coventry-led consortium was popular because it provided some clarity within what could be a complex process. However, some providers cautioned that establishing any such guidelines was slow and could impact on the application window (with anecdotal reports of a few eligible scholarship applicants not enrolling because processing applications was too slow). Overall, providers felt that allowing as long and early an application window as possible for scholarships was best, albeit in the context that applicants had to have a course offer in place before such an application.

An issue in relation to SEB which arose in the programme workshop was that it relied on self-identification by the applicant. However, in dialogues with the evaluation team, providers have pointed out that this can apply also to disability as a criterion, as it may not be appropriate to demand and assess 'proof' of certain conditions, and to race.

9 Emerging conclusions and key themes

9.1 Progress against programme objectives

Given its timing, this interim report can only provide evidence in relation to some of the short-term activities and outputs from the programme, as most of the desired outcomes or impacts which reflect the high-level objectives take longer to emerge. However, these short-term outputs are necessary for the achievement, in the longer term, of the higher-level objectives, so evidence about them is an important indication of progress towards achievement of the long-term objectives.

In summary, we can report the following observations:

- The providers in the programme have offered (where a course already existed) or launched (where it was proposed as a new course) most of the intended provision as per their proposals, and those courses are now being delivered. The only exceptions to this are a few new courses slated for a first intake in 2024-25, development of which we believe is also on track;
- Overall, demand from students for these courses has been high, with over 4,700 students already enrolled and a total of approaching 5,000 students expected to eventually have enrolled within the 2023-24 academic year. These numbers exceed the original projections made by providers in their proposals to join the programme;
- Over 90 per cent of the scholarships available, funded by the programme, have been allocated to date, although an overall shortfall of around 50 scholarships is expected in relation to the potential overall funding for 818 scholarships in 2023-24. That shortfall is reflected in the one third of providers reporting not being on track to allocate all the scholarships they proposed for 2023-24, although a few others have had enough demand for some unused scholarships to be transferred to them. Implications and concerns about scholarship allocations are discussed in the next section;
- On the basis of limited survey evidence, the picture emerging is that the students enrolling have many of the key characteristics sought in the programme: for example, around half have a first degree that is either non-STEM or in a STEM discipline far removed from data science or AI. This suggests the objective for these courses to be 'conversion courses' and potentially re-skill a wide range of graduates is being achieved;
- The survey evidence suggests the majority of students are progressing from prior employment, while around one in six have enrolled directly after completing a first degree in 2023. This, again, reflects the ambition of the programme to re-skill or upskill graduates in the existing UK workforce;
- Although administrative data on the student profile, for scholarship awardees and others, will take longer to become available, survey data already suggests that the targeted scholarships are having the desired effect in terms of diversifying the overall 2023-24 student cohort in data science and AI. The proportions of female, disabled and Black[26] students amongst scholarship holders are all significantly higher than amongst students

[26] Amongst UK students only.

without scholarships, so contribute to increases in these proportions for the entire cohort;[27]

- There is evidence for a wide range of delivery strategies across the programme, in some cases leveraging the experiences of course delivery in the Phase 1 programme to enhance course structures, content and support offered. The culture within the programme of encouraging sharing of learning between providers has had benefits for new providers and those with pre-existing courses alike, as they adjust to evolving challenges as courses mature and the context evolves;
- Less positively, as highlighted in our first interim report, providers have been far less successful in attracting co-investment from industry for scholarships, than hoped, with only around 26 scholarships funded by industry pledged or confirmed to date (across the two years of the current programme). On the other hand, in-kind investment from industry has been substantial. In the six months since the first interim report, this has changed very little.

9.2 Scholarship applications and allocations

A significant distinction between this programme and the Phase 1 programme was an alteration in the scholarship eligibility criteria, which essentially allowed only UK-domiciled students to qualify. This change was somewhat concerning from the perspective of allocating scholarships, especially considering the trend noticed during the Phase 1 programme where an increasing percentage of scholarships were being granted to international students over time. This concern was particularly pronounced given the current programme's goal to augment the total number of scholarships awarded, even though it is doing so across a slightly expanded range of providers.

9.2.1 Level of demand and its implications

Overall, evidence to date suggests that not all the 818 available funded scholarships will be allocated to students in 2023-24 intakes, although 92 per cent have been allocated to date and this may rise slightly further. There has been a wide range of experiences, with some providers successfully allocating all the scholarships for which they had programme funding, with a few stating that demand far outstripped supply and that more scholarships could have been used if available. However, one third of providers reported in March 2024 that they were not on track to reach their proposed target for 2023-24, hence the overall shortfall expected.

Within this mixed picture, many providers reported high numbers of (ineligible) international students still applying for scholarships. The changes to scholarship eligibility have had implications for their efforts to recruit students, assess scholarship applications and award scholarships. On the one hand, a number of providers reported that being forced to look *"closer-to-home"* for UK students was a *"blessing in disguise"* as it encouraged them to look more closely at this important market segment. Another reported that the change had resulted in more scholarships being awarded to female students, which led to a better

[27] Attracting students from lower socio-economic backgrounds is one of the aims of the scholarship scheme. To evaluate the scheme with regards to this it is necessary to wait for official (HESA) data to become available and so it will be looked at in future evaluations.

gender balance as well as better balance of home students and international students on the courses more broadly.

On the other hand, several providers reported both a lack of UK students applying for the conversion courses in the first place and, especially, a lack of UK students who met the eligibility criteria for OfS scholarships. One concern expressed was that a limited pool of UK students eligible for scholarships led to the position where scholarships were being awarded to weaker students, than had international students also been eligible. This led some to fear that providers in future might be incentivised to lower their entry requirements for students, in order to expand the pool of UK-enrolled students, which could potentially influence the calibre of students on already challenging courses and accrue problems down the line (such as more frequent drop-out or non-completion).

It is interesting in this context to note that a few providers have proposed additional courses within the programme, to be introduced in autumn 2024 – in some cases as planned within their original proposal but in others proposed subsequently, where they believed this could increase the total number of scholarships offered.

Several providers stated that the period between announcement of scholarship allocations for 2023-24 intakes and when applications for 2023-24 places had to close was more limited than they would like, which they believed might have lessened their total recruitment for students (and therefore scholarship places). For the 2024-25 intakes, a longer lead time will be available and these providers have some confidence that with more time their enrolments and scholarship applications will increase.

9.2.2 Scholarship value

In general, since the concept of a £10,000 scholarship was introduced for the Phase 1 conversion course programme in 2019, both the cost of living and more specifically postgraduate course fees have increased. It is now commonplace for home fees for a course in the programme to be more than £10,000, so the scholarship no longer fully funds home student course fees and contributes to living costs. This erosion of perceived scholarship value could contribute to limited demand from eligible students, although we have no direct evidence for this yet.[28]

However, related concerns are emerging that students from disadvantaged socio-economic backgrounds could be deterred from applying for financial reasons. There are some fears that comparatively limited scholarship funding (relative to the costs of studying and support) may result in financial pressure, leading to vulnerable students being unable to follow and complete courses successfully. One provider suggested that a higher value scholarship might go some way to addressing these issues, although within a fixed funding envelope this would lead to fewer scholarships overall. Alternatively, some providers are encouraging scholarship recipients to apply for further sources of funding available in parallel, although some others do not allow more than one source of scholarship funding per student.

[28] It should be noted that two providers are reducing fee levels for their programme courses in 2024-25, and that most providers offer discounts to their alumni. Equally, during the Phase 1 programme, the scholarships awarded to international students will not have fully covered international student courses fees, and yet there was still great demand from them for scholarships.

10 Next steps

This evaluation continues until summer 2026, to allow time to assess outcomes for students who have completed a course in the programme. Our monitoring of progress being made by providers will continue, both reviewing what they report to the OfS and through the dialogue our evaluation team has with them. Later in 2024 we will deploy a survey for students who have completed their course, implemented in waves to reflect different intake dates and to take account of differing course durations. This survey will investigate employment outcomes and career next steps, so aims to provide insights into whether the longer-term outcomes of the programme (including entry to the AI and data science workforce) are being achieved. Student surveys will continue to be run with newly enrolled students at each main intake in 2024-25. In due course, systematic and more wide-ranging data about the numbers and profile of enrolled students, including those with scholarships, will emerge from the DDB for analysis. In 2026, Graduate Outcomes Survey data will also become available for many students who started a course this year, providing more robust data about post-course outcomes including employment.