TASO Transforming Access and Student Outcomes in Higher Education

Efficacy Pilot Evaluation Report

University of Exeter's Access to Internships Scheme

October 2023

1. Summary

Project team

The team comprised colleagues from SQW, the University of Exeter and the Centre for Transforming Access and Student Outcomes in Higher Education (TASO).

Project description

In September 2022, TASO commissioned SQW to work with two higher education providers, the University of Brighton and the University of Exeter, to support evaluations of interventions designed to improve employment outcomes for disadvantaged and underrepresented students. The aim of this project was to build Type 2 evidence on the interventions and to scope the feasibility of Type 3 evaluation.[1] This report presents the findings from the evaluation conducted with the University of Exeter.

Intervention being evaluated

The University of Exeter's 'Access to Internships' ('A2i') scheme is the focus of the evaluation. A2i provides funding for up to 140 hours of work, and covers the costs to employers of employing an intern (i.e., wages plus any additional costs). A2i is a targeted intervention to address inequalities in graduate outcomes and therefore, to be eligible, students must be from a Widening Participation (WP) background (the University has other internship support available to all students). A key rationale for the scheme is that it enables employers to take on interns. In other words, the assumption is that without the funding and facilitation provided by A2i, employers would not support the internships. The scheme is therefore principally about enabling a greater number of internships to take place, with an expectation that students' internship experiences then lead to better student/ graduate outcomes.

Methodology

Impact evaluation: Our impact evaluation examines both additionality (where A2i has more direct control) and the benefits to students (where A2i is reliant on the quality of the internships supported). The impact evaluation uses Contribution Analysis to consider the extent to which A2i has generated additionality and the degree to which beneficial outcomes can reasonably be attributed to the scheme. Contribution Analysis was deemed appropriate because of the difficulty in assessing additionality and other beneficial outcomes through the use of a robust comparison group, and because there is a reasoned Theory of Change against which we can evaluate the intervention's

[1] The types of evidence are based on the Office for Students Standards of Evidence found at: https://www.officeforstudents.org.uk/publications/standards-of-evidence-and-evaluating-impact-of-outreach/. Type 2 evidence means there is data which suggests that an activity is associated with better outcomes for students (i.e., correlational evidence). Type 3 evidence uses a method which demonstrates that an activity has a 'causal impact' on outcomes for students.

contribution. We triangulated evidence using surveys of students and employers, and interviews with staff and students. We used regression analysis to compare outcomes among interns versus students not involved in internships.

Process evaluation: A mixed-methods approach was adopted to answer the process evaluation research questions which explored why interns engaged with the intervention, how effective the intervention is perceived to be, and how it is delivered.

Key findings

Impact evaluation: Combining insights from survey responses from interns and employers, interviews with interns and University staff, and the regression analysis of student outcomes, we believe that the Theory of Change developed for the scheme gives a plausible depiction of the scheme's impact, and that the scheme is broadly delivered as intended. Based on this evidence, we believe it is likely the availability of A2i has generated additional internships that would not otherwise have taken place – for example, interns said in interviews and surveys that, without the scheme, they would not have been able to afford an internship, and employers likewise said they would have struggled to provide internships in the scheme's absence. The regression analysis indicates that the scheme is associated with improved employability outcomes for its participants over and above: i), students participating in other internships at six months after graduation and, ii), students not participating in any internships.

Process evaluation: Interns were motivated to engage in A2i for a range of reasons, including a desire to gain experience, knowledge and connections within a specific occupation and to improve their job prospects. Generally interns and employers feel the scheme is well run and delivered, and it was noteworthy that some of the suggested improvements are already things the University has in place, perhaps indicating that ongoing communication about available support could be beneficial.

Key conclusions

The evaluation provides some modest evidence that the A2i intervention generates additional internships.

Additional findings

This report concludes with recommendations for how the intervention might be further evaluated. In addition, it also outlines recommendations for the University of Exeter with regards to the delivery of the A2i scheme.

2. Introduction

2.1. Background and rationale for intervention

National data show that there are gaps in progression rates into graduate roles for students from different social, cultural and educational backgrounds. Students from disadvantaged backgrounds are less likely to achieve positive outcomes relative to students with more privileged social and educational backgrounds, despite having a university degree (Mountford-Zimdars et al 2015). The research literature identifies factors such as social capital (i.e., knowledge, networks and resources) and financial security as predictors of success above and beyond a university education. Furthermore, students from geographical areas of low university participation, students eligible for free school meals, mature learners, students with a disability or students from ethnic minority backgrounds are less likely to have positive employment outcomes 15 months after graduation (Office for Students, 2023).

The University of Exeter has observed gaps between groups achieving positive employment outcomes (as denoted by the Graduate Outcomes Survey) in line with national trends. For example, students from geographical areas of low higher education participation are less likely to achieve positive employment outcomes, as are students with a disability and students with a state school education (although the gaps are smaller at the University of Exeter than the national average in many cases).

There is a large amount of qualitative evidence exploring the value of internships. Quantitative analysis suggests internships and placement interventions can reduce inequality in graduate outcomes (Kerrigan, Manktelow and Simmons, 2018; TASO, 2022). However, students from relatively affluent backgrounds are more likely to benefit from internships (Wright and Mulvey, 2021).

The University of Exeter funds Access to Internships (A2i) to help eligible employers offset the cost of hiring a University of Exeter student on a paid internship. Its aim is to enhance the employability prospects of students and improve graduate outcomes. The A2i scheme is available to students from underrepresented and disadvantaged backgrounds who meet the University's Widening Participation (WP) criteria,[2] increasing their opportunities to prepare for graduate level work. The University has a range of paid internship options open to all students, predominantly the Student Business Partnership scheme (SBP) and Student Campus Partnership (SCP) scheme.

[2] Access to Internships (A2I) Widening Participation (WP) Criteria. Available at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.exeter.ac.uk%2Fmedia%2Funiversityofexeter%2Fcareersandemployability%2Finternshipsandmentoring%2Fa2i%2FA2I_Student_WP_Criteria_21-22.docx&wdOrigin=BROWSELINK

Previous evaluations of the A2i scheme have been predominantly survey based and had limited sample sizes. They have found that – in the view of the students participating – the scheme has improved their employability skills, provided them with experience that would help their career and increased their knowledge of the sector and/or occupation (n=17). Employers surveyed said they were happy with the calibre of their interns and would recommend the scheme (n=24) (University of Exeter, 2021).

2.2. Intervention aims and objectives

By providing the opportunity and the financial means to access graduate level internships, the scheme aims to increase participants' employability and, therefore, their employment outcomes. The internships offer the opportunity to develop work experience credentials and CVs, create new professional networks, experience new occupations, and increase workplace skills and confidence. Anecdotally it is understood that this helps students from disadvantaged backgrounds who may not otherwise get exposure to such opportunities, such as through family or social networks. A Theory of Change for the intervention is included in Annex B.

The intervention A2i provides funding to pay for up to 140 hours of work and includes the costs to employers for employing an intern (i.e., wages plus any additional costs). Students can also access a 'Help Getting to Work' bursary of up to £250 if they are required to pay for travel, accommodation, or work wear during an internship with an external employer.

A2i is a targeted intervention to address inequalities in graduate outcomes and therefore students must be from a WP background[3] to qualify for A2i funding. By contrast, the internships schemes open to all students such as the SBP and the SCP vary in terms of hours (and are normally considerably shorter), with no eligibility criteria except current student status and is advertised through the University (rather than self-sourced).

A2i can be in-person, virtual or hybrid and can be completed part-time for up to 15 hours a week during term time or full-time during the holidays. The scheme can be used alongside other employability support (e.g. Career Zone, mentoring, workshops careers advice, etc.) offered by the University. Students can use the scheme as part of their industrial placement year where the funding contributes to their pay.

[3] Access to Internships (A2I) Widening Participation (WP) Criteria. Available at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.exeter.ac.uk%2Fmedia%2Funiversityofexeter%2Fcareersandemployability%2Finternshipsandmentoring%2Fa2i%2FA2I_Student_WP_Criteria_21-22.docx&wdOrigin=BROWSELINK

The number of students supported through A2i depends on the year-to-year funding allocation. In the 2020/21 academic year (September to August), 81 students received funding through A2i, and in 2021/22, 109 students were supported. At the time of writing, in 2022/23, 142 students had been supported.[4] Internships funded through A2i must take place between October and September. Students can apply for a maximum of one employer subsidy and one bursary per academic year.

A2i is part of the University's Student Employability and Academic Success service. A small dedicated team is responsible for the operational delivery of A2i; it comprises the Student Employment Support Officer and a part-time Student Employment Administrator (Intern) and overseen by the Employment Schemes Manager. The Employment Schemes Manager has experience of supporting students' career decision-making in further and higher education settings and sits on the University's Progression Working Group, and their remit is to monitor and close employability gaps and support employers to recruit students through the University's managed schemes including internships, casual jobs, graduate recruitment, and career mentoring scheme.

Promotional activities to raise awareness of the A2i scheme to eligible students are carried out through the University's social media, direct email campaigns, faculty newsletters, and posters. Workshops are arranged if requested by staff, to increase understanding and raise awareness among their students.

Students organise the internship themselves with advice and guidance available from the A2i team and dedicated careers staff within the University. Application opening and closing dates are detailed on the A2i website, which includes other resources such as email templates and a list of employers who have expressed an interest in hosting a student through the scheme.

Most employers are eligible for the scheme (this includes SMEs, registered charities, statutory organisations and the University of Exeter Academic or Professional Services), but there are some exceptions, such as a placement at another university or with student-led start-ups.[5]

Once a student has confirmed an internship with an employer, they complete an application form, containing start and end dates for the internship, and a 'job description', which the A2i team checks to ensure the role will provide suitable experience for a degree-level student. The A2i team then confirms the student's and employer's eligibility before sending detailed terms and guidance to both parties to set

[4] This figure would drop to 128 if just up to and including May.

[5] University of Exeter (2023) A2I Frequently Asked Questions. Available at: https://www.exeter.ac.uk/students/careers/internships/a2ifaqs/#a15

out the expectations and next steps. An A2i Internships Agreement is issued confirming details such as the student's rate of pay and the amount of funding that will be paid to the employer to cover this rate of pay. Once the agreement is signed, the A2i team then liaises with the University's finance team to arrange the transfer of funds to the employer.

The primary interaction between A2i and employers comes after confirmation that an employer will recruit the intern. Organisations are required to put interns on their payroll, after which A2i reimburses all costs.

During the internship, students are supported by their line manager, a named representative working at the same organisation. The A2i team checks in regularly with the student and their line manager by email, responding to queries as these arise.

All students receive the same base level of support, in terms of access to financial support, access to online guidance and resources, and support from the careers service and A2i team. In practice, support is given based on individual students' levels of need.

At the end of the internship, evaluation forms are sent to all participating students and employers.

2.3. Evaluation approach and what this report covers

The aims of the evaluation are threefold:

1. To inform and support the continuous improvement of the A2i scheme, through increasing the understanding of the University careers team about what is working well, what is working less well and what can be improved.
2. To provide robust evidence of how effective the scheme is in meeting its objectives, and whether change in outcomes can be attributed to the scheme.
3. To outline how evaluation of the A2i scheme can be developed and enhanced in the future, including the scope for deploying Type 3 (causal) interventions.

This report presents findings from a pilot evaluation designed and conducted between December 2022 and July 2023. It outlines findings relating to impact and process before highlighting possible future ways to improve the evaluation of the A2i scheme.

3. Methodology

3.1. Research questions and hypotheses.

Linking directly to the scheme's Theory of Change (see Annex B), the impact evaluation has four overarching hypotheses:

1. Working hypothesis A

   That a greater number of internships take place as a result of A2i than would otherwise be the case (in the scheme's absence).

2. Working hypothesis B

   Students participating in A2i boost their career-relevant knowledge and skills and, specifically, their:

   a. career-relevant personal skills (such as communication and teamwork)

   b. role- or sector-specific knowledge

   c. confidence and ability to pursue relevant career pathways

   d. knowledge of relevant career pathways

3. Working hypothesis C

   The internship helps:

   a. participating students to achieve better graduate outcomes than those who did not undertake any internships

   b. narrow the gap in graduate outcomes between WP and non-WP groups between those who undertook an internship relative to those who did not undertake any internships.

4. Working hypothesis D

   A2i interns help improve the performance of host employers and offer employers a diverse talent pipeline.

The process evaluation is exploratory in nature, and therefore does not have specific testable hypotheses. The impact and process evaluations were carried out simultaneously.

The research questions for the impact and process evaluation, respectively, are outlined in the Annex.

3.2. Impact evaluation design

As is set out in the Theory of Change, a key rationale for the scheme is that it enables employers to take on interns. In other words, the assumption is that without the funding and facilitation provided by A2i, employers would not support the internships. Internship placements are theorised to generate positive outcomes for students, though A2i has limited control over the quality and content of funded internships. The scheme is therefore principally about enabling a greater number of internships to take place, with an expectation that students' internship experiences then lead to improved student/graduate outcomes. Our evaluation examines both additionality (where A2i has more direct control) and the benefits to students (where A2i is reliant on the quality of the internships supported).

The impact evaluation uses Contribution Analysis to consider the extent to which A2i has generated additionality and the degree to which beneficial outcomes can reasonably be attributed to the scheme. Contribution Analysis explores attribution through assessing the plausibility that an intervention has contributed to observed results by gathering evidence against the Theory of Change (TASO, 2023). It is suited and relevant to evaluating A2i because: a) of the difficulty in assessing additionality and other beneficial outcomes through the use of a robust comparison group; b), there is a reasoned Theory of Change against which we can evaluate the intervention's contribution; and c) the use of different strands of evidence in assessing the contribution. Due to conceptual and practical considerations limiting our ability to define a strong counterfactual to use in quasi-experimental analysis (e.g., the amount of variation we cannot control for, such as variation in students' motivation and ambition affecting both internship participation and graduate outcomes), Contribution Analysis was deemed appropriate as it provides a framework suitable for triangulating findings from different strands of evidence.

A big part of the Contribution Analysis relies on self-reported data comprising surveys, individual interviews and group interviews. To mitigate the risk of bias associated with self-reported data (measuring perceived impact), we triangulated evidence using multiple data sources, including surveys of students and employers, and interviews with different groups (the University staff including the programme team, careers advisors and people in managerial roles such as the Head of Widening Participation and the Evidence and Strategy Manager, and participating students). We have incorporated new survey and interview data collected *during this evaluation*, alongside historical survey data from previous academic years. Owing to the nature of the data incorporated

into this evaluation (often self-reported and relatively small sample sizes), we cannot make causal claims about A2i's impact on the number of internships available and other beneficial outcomes. For this reason, the findings should be interpreted as indicative.

We adopted an established analytical approach for the Contribution Analysis, as described by Befani and Mayne (2014). This is described in detail in Table 7 in the impact evaluation's analytical strategy, below. Following six steps, we:

1. Set out the cause-effect issue to be addressed
2. Develop the postulated ToC and risks to it, including other influencing factors
3. Gather existing evidence on the ToC
4. Assemble and assess the contribution claim, and challenges to it
5. Gather new evidence as the intervention is delivered
6. Revise and strengthen the contribution story.

Informing the Contribution Analysis, the impact evaluation also considers the relationship between internships and student outcomes (following an internship), incorporating a regression analysis comparing outcomes between participant and non-participant groups (we discuss the composition of the sample below). Intern and employer surveys, and interviews with interns, employers and University staff also explored impact on student outcomes.

The comparison will not allow causal claims to be made. This is, for example, because of self-selection bias; as internship placements are perceived to improve one's career prospects, ambitious students (who are likely to achieve better graduate outcomes regardless) may self-select into internships meaning the observed difference in outcomes could therefore be driven by both the effect of internships and unobservable characteristics associated with doing an internship. Alternatively, for A2i participants specifically, the opposite might be true: perhaps students who feel like they need more support are more likely to sign up and, given A2i is targeted towards students from WP backgrounds, this would negatively bias their employment outcomes relative to non-participants. Given the likely variation in ambition, motivation and other factors that we cannot control for, the effect of undertaking an internship on graduate outcomes may be over- or under-estimated. For this reason, the findings should be interpreted as indicative of associations between internships and outcomes rather than as demonstrating causality.

Interview and survey findings were used to test hypotheses A, B and D (as listed in section 3.1, above). Survey questions for interns and employers focused on the scheme's additionality and perceived impact in terms of students' career-relevant knowledge and skills and employers' performance. Likewise, semi-structured interview topic guides contained questions for interns and University staff, and focused on what impact the scheme generates and the contribution A2i has made towards this. Hypothesis C (regarding graduate outcomes) was explored using regression analysis, though as noted above its findings should be treated with caution. In addition, regression analysis provided supplementary evidence for hypothesis B (regarding students' knowledge and skills).

Impact evaluation: sample selection

The Contribution Analysis is centred around new interview and survey data gathered during this specific project with three key groups: University staff, interns and host employers involved in the A2i scheme in the 2022-23 academic year. It also incorporates historical intern survey data.

There were no specific sample size requirements for these elements of the research. Instead, we sought to maximise participation in surveys and interviews. This of course introduces a question of bias, and whether respondents were more likely to speak favourably (or negatively) about the scheme. We provide a breakdown of respondents' characteristics for the interviews, new surveys and historical surveys in the findings section, below.

The University of Exeter sent surveys to all students (N=115) and employer contacts (N=100) involved in A2i internships in the 2021-22 and 2022-23 academic years (where the internship had been completed by the time of the surveys, i.e. by March 2023), increasing our chances of securing a breadth of responses from:

- A range of students, with different demographic characteristics, degree subjects and internship foci (in terms of sector and employer 'type');
- A range of employers representing different organisation types and sectors.

In total, 24 students and 25 employers responded to these surveys. After data cleaning, all student responses and 22 employer responses were included in the analysis. Three employer responses were excluded from analysis as they related to interns who were not A2i participants.

Likewise, all participants – interns and employers – have been invited to complete previous surveys about the scheme. In total, 85 historical intern survey responses were

incorporated into this evaluation. The breakdown of responses by year is provided in the table below:

Table 1: Breakdown of responses by year

Year	Number of responses
2018	2
2019	32
2020	16
2021	15
2022	20

Regarding the interviews, invitations to participate were sent by the University of Exeter to all interns and staff, again to secure as wide a range of perspectives as possible. All interns who agreed to participate were interviewed for the sake of maximising sample numbers. In total, 14 interns and 21 University staff took part in interviews. We provide a breakdown of respondents' characteristics, below (at the top of section 4), while protecting their anonymity.

The regression analysis was based on a sample of all undergraduate home fee-paying students (in line with A2i's eligibility requirements) who started at the University between academic years 2015-16 and 2022-23. The full dataset was constructed by merging data from internal university records, the Careers Registration Survey, the Careers Destination Survey and the Graduate Outcomes Survey (see Table 2, below). This resulted in a sample of 55,103 unique students, of whom 615 had done an A2i internship. Not all students answer all elements of the surveys, meaning that the availability of data relating to specific outcome measures (regarding hypotheses B and C) depends on the extent to which students completed these responses.

Table 2: Summary of secondary data sources for impact evaluation (regression analysis)

Data source	Description	Number of unique students
University of Exeter internal records	Internal records containing information on student characteristics (including WP characteristics), course of study and participation in University internship schemes, including A2i. SQW received data for all undergraduate home fee-paying students who started university between academic years 2015-16 and 2022-23.	55,103
Careers Registration Survey (CRS)	Internal survey administered to all students at enrolment, re-enrolment and graduation. It provides a measure of movement in career readiness during the time a student is at the university. Response rates are 100% at enrolment and re-enrolment (when the survey is compulsory), but the graduation response rate drops to c.40-60%. SQW received data on selected questions from the survey, including work experience in the past 12 months, 'career journey' stage, feeling well prepared for employment and plans for after graduation.	54,751
Careers Destination Survey (CDS)	Internally run survey that collects data on graduate destinations six months after graduation. Typical response rate of c.60%. SQW analysed data on selected questions from the survey, including main activity six months after graduation, type of qualification (for those in further study) and graduate-level responsibilities (for those in employment).	13,298

Data source	Description	Number of unique students
Graduate Outcomes Survey (GOS)	Externally commissioned, sector-wide measure of graduate destinations 15 months after graduation. Typically a c.60% response rate (at the University of Exeter). SQW received data on selected questions from the survey, including main activity 15 months after graduation, Guardian destination score[6], type of qualification (for those in further study), self-assessment of current activity.	8,930

Source: SQW

We used the following treatment and comparison groups in the regression analysis:

1. **Main comparison**: **Treatment**: any internship experience (N=16,169). **Comparison**: no internship experience (N=26,116).
2. **Treatment**: any internship experience (N=16,169). **Comparison**: no work experience (N=3,261).
3. **Treatment**: A2i participation (N=595[7]). **Comparison**: no internship experience (N=26,116).
4. **Treatment**: A2i participation (N=595). **Comparison**: no work experience (N=3,261).
5. **Treatment**: A2i participation (N=595). **Comparison**: other internship experience (N=15,574).

In defining our main treatment group, we focused on students who completed an internship-like experience during their undergraduate study, which included A2i but also other internships (many of which were not linked to the University). This allowed us to significantly increase our sample size and the statistical power of our analysis. This approach was considered appropriate given that A2i has no direct control over the content or quality of funded internships and the A2i internships can be expected to be qualitatively similar to other internship experiences students secure outside of the

[6] The Guardian destination score is used by the University of Exeter as a Key Performance Indicator. More detail on how it is defined is provided in section *Impact evaluation: outcome measures*, below.

[7] The sample size of A2i participants used in the analysis is slightly lower than the number of A2i participants in the full dataset (615) due to some observations being excluded for analytical reasons (i.e. due to breaks in the data, as explained later in this section).

scheme. As a result, the regression analysis using our main treatment group investigates the effect of undertaking any internship rather than A2i specifically.

However, for robustness, to account for the possibility that A2i might affect students' outcomes differently, we also conducted additional analyses where the treatment group was defined as containing A2i participants only, and one of the comparison groups used consisted only of other internship participants. This allowed us to statistically test whether there were differences in outcomes for students undertaking A2i relative to other internships.

For our main treatment group, we combined data from internal University records on participation in A2i and other University internship schemes and data from the Careers Registration Survey (CRS) which collects information on students' work experience in the past 12 months – students answer this question at the start of each academic year and at graduation. This allowed us to track students' internship experiences throughout their time at the University. From the list of choices provided in the survey[8], we selected those which qualitatively are the most similar to the A2i experience and are undertaken for similar purposes: 'internship during a vacation' and 'placement as part of my course'. While disregarding other options might have excluded people who completed a qualitatively similar experience (e.g. working alongside their studies), the goal was to capture a treatment group which would be 'clean', i.e. everyone included in the treatment group would have had a relevant experience.[9]

In defining the main comparison group, we focused on students who did not complete an internship-like experience (defined as above) at any point during their undergraduate studies. In addition, to make the comparison group 'purer', we excluded students who completed volunteering or work shadowing during their time at the University as these activities might have contained elements similar to an internship experience. As a result, the sample size of the comparison group was reduced by 11,842 (from 37,958 to 26,116).

[8] Students could choose from the following list: Full or part-time time work prior to my course; Full or part-time time work during vacations; Full or part-time work alongside my studies; Self-employment/ running my own business; Internship during a vacation; Placement as part of my course; Position of responsibility in a club or society; Volunteering; Work shadowing; Completion of an extra-curricular award or certificate; Had an international experience (study or work); Other; I have no recent work experience to date; Not applicable.

[9] There is one case where the treatment group could potentially include people who should not have been included. This only applies if a student completed two consecutive UG courses between 2015-16 and 2022-23, and did not have any internship experience during the first one but did have an internship experience during the second one, and their CDS/GOS entries refer to the first rather than the second course. While it is possible those cases exist, we do not think they are very common.

As an alternative comparison group, we also used a stricter definition of 'non-participation', i.e. those students who did not have any work experience during their undergraduate studies, including a position of responsibility in a student society, work alongside studies (e.g., part-time job in a café) or completion of an extra-curricular award/certificate. While this provided us with a 'purer' comparison group, it significantly reduced the sample size and statistical power of the analysis.

When defining comparison groups, we also excluded students who had breaks in their studies as those students had gaps in their CRS data – otherwise the comparison group would likely include students who might have had some internship/work experiences during those breaks that were not recorded in the data. To make the treatment and comparison groups as similar as possible (in terms of other characteristics), we also excluded students with breaks from the treatment group. From the full dataset of 55,103 students, we excluded 976 students with breaks in their studies.

Finally, one caveat to keep in mind is that the CRS data is comprehensive as long as students are still on their course. Once they finish their studies, the survey is no longer compulsory, which means the graduation response rate drops to 40%-60% depending on the year. In order not to lose around half of the observations, when defining comparison groups (i.e., students who did not complete any internship or work experience throughout their time at the university) we did not exclude students for whom data collected at graduation was missing. As data collected at graduation provides information on students' work experience in their final year of study, it is possible the comparison group might include students who did in fact undergo the 'treatment'. However, we do not think those cases would be very common – this would only apply to students who did not have any internship/work experiences before the start of their final academic year (but did complete one in their final year).

Overall, the full dataset had a relatively high incidence of missing data for the outcomes of interest. This is partly due to the c.60% response rates to the Careers Destination Survey (CDS) and Graduate Outcomes Survey (GOS). Moreover, as this data is collected six and 15 months after graduation (respectively), it is only available for a subset of students who were doing an undergraduate course during the period in question. The GOS data in particular suffers from a further time lag (after the data is collected and before it is shared with the University of Exeter), with the latest available data covering students graduating in the 2019-20 academic year.

As the missing data was on the outcome variables of interest, it was not possible to assess whether or not missingness was correlated with the likelihood of achieving each outcome. The findings presented in this study may therefore only be representative of the students for whom we have data.

In terms of other types of missingness, we looked at whether having missing outcome data was correlated with being from a WP background, doing an A2i internship, or doing any kind of internship. The table below shows proportions of students with missing outcome data (for the CDS and GOS main outcome variables) by WP status, A2i participation and (any) internship participation.

Table 3: Missingness by WP status, A2i participation and any internship participation

Group	Percentage with missing CDS good outcome data	Percentage with missing GOS good outcome data
WP background:		
Non-WP	55.8%	81.5%
WP	64.0%	85.3%
A2i participation		
Non-A2i	60.9%	83.8%
A2i	39.3%	72.6%
Any internship participation		
No internship experience	68.1%	87.8%
Any internship experience	43.1%	74.1%

Source: SQW

Note: 'CDS good outcome' and 'GOS good outcome' refer to being in employment /further study six and 15 months after graduation, respectively.

As can be seen above, students from WP backgrounds were less likely to report graduate outcomes, while those who had an internship experience (A2i or other) were more likely to report graduate outcomes. However, as we cannot know whether those reporting graduate outcomes were more likely to have positive or negative outcomes, we are not able to say how these correlations may affect our results.

Impact evaluation: outcome measures

The impact evaluation focused on assessing the extent to which the scheme has been successful in enabling a greater number of internships to take place (its primary focus) and, secondly, its impact on student, university and employer outcomes (secondary outcomes).

Student, university and employer outcomes were defined as per the Theory of Change and, specifically:

- For students, intended outcomes cover: career-relevant personal skills; improved role- and sector-specific knowledge and skills; confidence and ability to pursue relevant career pathways; knowledge of relevant and aspirational career pathways
- For the University, intended outcomes cover: graduate outcomes (main activity six and 15 months after graduation, i.e. whether a person is employed or in further study) and, specifically, equality in outcomes and closing gaps between WP students and peers
- For employers, intended outcomes cover: business performance; management of internship placements; improved recruitment pool.

A full 'map' of the research tools and research questions and outcomes is provided in the Annex and is summarised in the table, below.

Table 4: Summary of primary data sources for impact and process evaluations

Data source	Sample size	Description
University staff interviews (with programme team, careers advisors and managers)	Four individual interviews and four group interviews with a total of 21 University staff members (including delivery team members).	Questions explored the scheme's impact on participating students, host organisations and the University, participants' experiences, the scheme's strengths and weaknesses, and its additionality. Interviews were conducted by A2i programme team members, with raw data analysed by SQW.
Intern interviews	Individual interviews with 14 students who had completed or were about to finish an internship through A2i.	
Intern surveys	2022-23 survey: 24 interns Historical surveys: 85 interns.	Questions explored reasons for participation, activities undertaken on the internship, stakeholder satisfaction with

Data source	Sample size	Description
Employer surveys	25 employers (22 responses were included in the analysis after data cleaning).	the scheme and support on offer, the training and development opportunities organisations provided for interns, and outcomes for participating students and employers. Surveys were disseminated by the A2i programme team members, with raw data analysed by SQW.

Source: SQW

Using secondary data sources (summarised in Table 2, above), we were able to gather evidence on several outcomes of interest. For the comparison of graduate outcomes (regression analysis), we used the following variables available from the Careers Destination Survey and Graduate Outcomes Survey:

- **Main outcome of interest**: 'working' or 'studying' six months after graduation (CDS);
- **Main outcome of interest**: being in 'full-time employment', 'full-time further study', or 'in employment and further study' 15 months after graduation (GOS);
- Having graduate-level responsibilities in one's job six months after graduation (i.e. a University degree was a formal requirement in applying for the position), for those working at the time of the survey (CDS);
- Achieving a positive outcome, as defined by the Guardian, 15 months after graduation (GOS). The University of Exeter has decided to use the Guardian measure as a Key Performance Indicator as it was felt that this was a more inclusive measure of the variety of positive outcomes achieved by graduates over the other two main league table methods, i.e. Times and Complete University Guide. The Guardian's scoring methodology assigns a 'positive' outcome to those who do paid or voluntary/unpaid work for an employer (where occupational classification is known); do freelancing work / are self-employed / run their own business / develop a creative, artistic or professional portfolio (where occupational classification is known); are engaged in a course of study, training or research (where type of qualification is known); or undertake a significant

interim study[10] (where type of qualification is known). Where occupational classification / type of qualification is not known, students receive an 'exclude' score. Those without a 'positive' activity or where conditions for exclusion are not met receive a 'negative' outcome. In our regression analysis, students with an 'exclude' score were treated as having missing data.

- Three self-assessment measures 15 months after graduation (GOS): whether graduates agree they have utilised the skills they have learnt during their studies in their current activity; whether graduates agree their current activity is meaningful; and whether graduates agree their current activity fits in with their plans for the future.

In addition, we used data collected in the Careers Registration Survey to construct variables providing additional evidence for the confidence outcome (*confidence and ability to pursue relevant and aspirational career pathways*). These included:

- Feeling well prepared for employment (CRS). As CRS data is collected at several points throughout students' time at the University, data from the latest available survey for each student was used, i.e. data collected at graduation or, where graduation data was unavailable, data from the start of the final academic year. This ensured that, for the treatment group, we used data from after students' internship experiences. Consequently, the analysis looks at the difference in feeling well prepared for employment towards the end of one's undergraduate study.

- Achieving one's plans for after graduation. This variable was constructed by matching students' answers (on plans for after graduation) in the CRS with their actual activity six months after graduation (CDS) and 15 months after graduation (GOS). Similarly, data from the latest available CRS survey for each student was used (for the reasons outlined above). One caveat to note is that the definitions of activities were relatively broad (working, studying, or, where available, travelling) and did not incorporate details such as type of employer, sector or discipline of further study.

Impact evaluation: power calculations

Power calculations were not relevant to the Contribution Analysis. The low sample sizes for the survey data mean that our findings (below) should be treated as indicative rather than definitive.

[10] Definition available at https://www.hesa.ac.uk/support/definitions/graduates.

For the comparison of the outcomes (regression analysis), the following power calculations have been conducted, using sensitivity analysis for logistic regression (Yenipinar et al., 2019). They were based on the following assumptions:

- Family of test statistic: z-test
- Significance level: 0.05
- Power: 0.8
- X distribution: binomial (matched to proportion of treatment variable)

The following table summarises the minimum detectable effect size (MDES) in terms of odds ratios and the required probability of identifying an outcome in a logit regression with no control variables for a selection of the main outcomes of interest and different comparison groups tested.

Table 5: Power calculations

Outcome measure	Sample size (total)	Proportion of treated	Proportion of untreated	Pr(Y|X) for sample	Odds ratio	Prob. Req. to detect effect[11]
(1) CDS good outcome – any internship vs no internship	6,792	0.57	0.43	0.56	1.131	0.59
(2) GOS good outcome – any internship vs no internship	2,072	0.64	0.36	0.77	1.324	0.82
(3) CDS good outcome – A2i vs other internship	3,874	0.04	0.96	0.61	1.551	0.71
(4) GOS good outcome – A2i vs other internship	1,313	0.04	0.96	0.84	4.874	0.96
(5) CDS good outcome – internship vs no work experience	3,994	0.97	0.03	0.51	1.593	0.62

[11] In the treatment group in a simple logit model with no control variables

(6) GOS good outcome – internship vs no work experience	1,340	0.99	0.01	0.84	40.800	0.995

Source: SQW

Note: 'CDS good outcome' and 'GOS good outcome' refer to being in employment /further study six and 15 months after graduation, respectively.

The required probability for detecting an effect is close to the Pr(Y|X) for the sample in (1) and (2). This means that the analysis is well-suited to pick up an effect that could be reasonably expected, given the intensity of the intervention in these regressions. However, the difference in the required probability is much bigger for regressions (3) to (6). This means that in these regressions, the effect has to be of substantial size for our analysis to show a statistically significant estimate and the presence of an insignificant estimate should not be interpreted as evidence of no impact. The difference between (1) to (2) and (3) to (6) is largely driven by the very small sample of treated or non-treated individuals in these regressions.

Table 6: Power calculations for Widening Participation Interaction analysis

Outcome measure	Sample size (total)	Proportion of treated [12]	Proportion of untreated	Pr(Y|X) for comparison	Odds ratio	Prob. Req. to detect effect[13]
(1a) CDS good outcome – any internship & WP vs no internship or not WP or neither[14]	6,792	0.32	0.68	0.57	1.141	0.60
(1b) CDS good outcome – any internship & WP vs no	3,994	0.54	0.46	0.58	1.175	0.62

[12] The proportion of WP students with any internship

[13] In the treatment group in a simple logit model with no control variables

[14] As in Table 6 the power calculations are done for the interaction term between WP status and internship participation, 'treatment' is defined as both having an internship experience and being a WP student. Consequently, 'untreated' refers to those who: 1) had a WP status but did not have an internship experience/work experience (depending on comparison group used); 2) had an internship experience but did not have a WP status; or 3) did not have a WP status and did not have an internship experience/work experience (depending on comparison group used).

work experience or not WP or neither						
(2a) GOS good outcome – any internship & WP vs no internship or not WP or neither	2,072	0.35	0.65	0.80	1.354	0.84
(2b) GOS good outcome – any internship & WP vs no work experience or not WP or neither	1,340	0.54	0.46	0.83	1.475	0.88

Source: SQW

As shown in Tables A7 and A8 in the Annex, WP status (as defined by the University of Exeter) does not seem to be strongly correlated with graduate outcomes on its own. However, to test our research question of whether WP students benefit more or less from doing an internship, we estimated a model that tests for the presence of any interaction effects between WP status and achieving good graduate outcomes.

The table above presents results for a power analysis for these regressions. The required probability for detecting an effect is relatively close to the Pr(Y|X) for the sample in all four regressions here (less than 5% points). This means that the analysis is well-suited to pick up an effect should one be present.

Impact evaluation: analytical strategy

Conducting a Contribution Analysis involves following a series of steps, such as those outlined by Befani and Mayne (2014). The following table summarises these steps, and how the Contribution Analysis in this evaluation was designed to align with these:

Table 7: Contribution Analysis steps and actions taken in this evaluation

Contribution Analysis 'step' (as described by Befani and Mayne, 2014)	Actions taken in this evaluation
1. Set out the cause-effect issue to be addressed	SQW reviewed A2i scheme documentation describing the intervention, including its existing ToC and previous evaluations, and wider

	literature about the value and impact of internships. We conducted scoping calls with the University of Exeter's programme team, discussing the theorised causal chain. A key dimension is whether A2i leads to additionality, i.e., to the creation of internships that would otherwise not have taken place.
2. Develop the postulated ToC and risks to it, including other influencing factors	The University developed a ToC for A2i. SQW reviewed and updated the University's existing ToC and, in particular, sought to sharpen the language around expected outputs and outcomes.
3. Gather existing evidence on the ToC	SQW designed a series of research tools with which to gather evidence about additionality and A2i's wider impact, including – respectively – surveys, interviews and a comparison of graduate outcomes data. We reviewed and adapted existing intern and employer surveys.
4. Assemble and assess the contribution claim, and challenges to it	The evaluation findings, below, set out the contribution 'story', triangulating and summarising evidence from multiple sources.
5. Gather new evidence as the intervention is delivered	We conducted a process evaluation alongside the impact evaluation enabling us to test some of the ToC's assumptions.
6. Revise and strengthen the contribution story	As above, the contribution 'story' is summarised in the findings section, below. Gaps and areas for future inquiry are described in the recommendations section at the end of the report.

Source: SQW, summarising Befani and Mayne (2014)

The analytical approach then varied by data source.

Intern, employer and University staff interviews were set up and conducted by the A2i programme team. The interviews were transcribed and anonymised, and then shared with SQW. We adopted a structured approach to the qualitative data analysis, using software to systematically tag the text with agreed codes in order to identify common themes and reveal any emerging relationships in the data – thereby helping to ensure that our analysis is objective, comprehensive and auditable. Our 'coding framework' was based around the research questions and evaluation outcomes. Where other topics of interest emerged in the course of the data analysis, these were coded and are reported in the results, below. We do not ascribe interviewees (in the case of University staff) to specific roles in order to protect anonymity.

Intern and employer survey data collected this academic year was shared with SQW in anonymised form. SQW cleaned the data and ran frequency analyses across questions and responses. The results are reported below.

The University of Exeter cleansed **historical survey data,** before sharing this in aggregated form with SQW (owing to data sharing permissions, individual-level responses could not be shared). Survey responses were matched by the University using students' details to internal University records in order to obtain information about respondents' characteristics. There was some discrepancy in how A2i had been understood by students versus the internship scheme they were recorded as completing, which reduced the initial sample size of 146 to 85 unique responses. To ensure the analysis reflects the survey data fully, responses were categorised more than once where appropriate, resulting in a frequency bigger than the overall number of survey responses for each question. Themes were generated in the process of examining responses to free text questions in the survey, to avoid over imposing researcher views on the data. The survey data here referred to the A2i scheme only, and comparison is not drawn with other internship schemes run by the University of Exeter due to time constraints. In addition, the historical data assembled in the timeframe for this project was made up of responses from two different surveys, with slightly different wording in some of the questions and response categories. In the findings section, caveats are presented for specific findings to highlight where this is relevant.

In the **regression analysis**, we compared outcomes of interest between treatment and comparison groups (see the *Impact evaluation: sample selection* section for more detail on how these were defined), controlling for individual-level characteristics. These included: ethnicity, gender, age, college, degree classification, mode of study (full-time or part-time), disability, 'First Generation at University' status (both parents have not attended university), refugee status, being estranged from family support, being a recipient of the 'Access to Exeter' bursary (available to students with a household

income below £25,000), being a care leaver or care experienced, and being from a neighbourhood in the two lowest IMD (Index of Multiple Deprivation) quintiles. As a robustness check, we also ran the regressions using alternative sets of controls (e.g., using the POLAR measure[15] instead of IMD, or adding discipline of study to the model). This did not affect the results in a substantive way.

As all outcome measures (described in the *Impact evaluation: outcome measures* section above) were binary variables, we used a probit model to estimate the relationship between internships and outcomes of interest. The model tested whether the likelihood of achieving the outcomes was different for internship participants compared to the non-participant group. For robustness, we also ran the regressions using a logit model (which assumes the error term follows a logistic distribution rather than a normal distribution, as is the case with a probit model). The outcomes were robust across both model specifications. The model was specified with the following equation:

$$Y_i = \beta_0 + \beta_1 InternshipParticipation_i + \Delta X_i + \varepsilon_i$$

where Y_i is the outcome measure, β_0 is the constant term, β_1 is the coefficient of interest, X_i is a vector of controls and ε_i is the error term.

In addition, in order to test whether internships have a differential effect on graduate outcomes for WP versus non-WP students, we added an interaction term to the model which captured whether a student was from a WP background and had completed an internship experience. The model was specified in the following way:

$$Y_i = \beta_0 + \beta_1 InternshipParticipation_i + \beta_2 WPstatus_i$$

$$+\beta_3 WPstatus * InternshipParticipation_i + \Delta X_i + \varepsilon_i$$

where Y_i is the outcome measure, β_0 is the constant term, β_3 is the coefficient of interest, X_i is a vector of controls and ε_i is the error term.

The WP status category (used in the model above) was constructed as a binary variable based on all individual WP markers available in the dataset – a student having at least one of those markers would be treated as being WP (in line with A2i's eligibility criteria). The dataset did not, however, include data on two WP characteristics: being a carer and having gone to school in a Low Participation Neighbourhood (based on the POLAR measure). While this meant there was some risk of misclassification, we would not expect the overall proportion of WP students to be significantly affected due to a likely

[15] The participation of local areas (POLAR) classification groups areas across the UK based on the proportion of young people who participate in higher education.

overlap between these two and other WP markers. The full list of WP markers (A2i's eligibility criteria) is provided in the Annex.

SQW were not able to access data for the regression analysis directly, because of limitations in the data sharing agreement with the University.[16] Therefore, SQW used the data it could access (about A2i participants) to design wider regression models and all necessary coding which the A2i team then ran internally, before sharing the results with SQW.

3.3. Process evaluation design

We designed a mixed methods process evaluation, using surveys and interviews to understand how the scheme is being delivered (e.g., with respect to the application process, non-financial support offered and marketing), what is working well (e.g., how well students were supported in arranging an internship and how effective the A2i team is in raising awareness of the scheme) and what can be improved. Used in combination, these methods provide a more rounded understanding of the research topic compared to either approach used in isolation (Creswell and Plano Clark, 2007). This enhanced understanding is achieved through triangulating results across data sources which, in turn, increases the validity of inferences (Molina-Azorin, 2016).

Process evaluation: data collection approach

As with the impact evaluation, the process evaluation is based on data collected in previous years and new primary data collected from the current cohort of interns and employers.

From the interviews, SQW sought to gain rich, in-depth insights from those involved in the scheme (i.e., interns, employers and programme team) and explore the research questions. Sample sizes were too small to meaningfully quantify the extent to which experiences and reflections varied among participants.

The data sources used in the process evaluation are summarised in Table 2, above. A table mapping the data sources to the research questions can be found in the Annex.

Process evaluation: sample selection

As with the impact evaluation, all current participants – interns and employers – were contacted and asked to participate in the study.

[16] The A2i was concerned that applying for access to wider University records for students not involved in the A2i might result in approval being declined.

Process analysis: analytical approach

We followed broadly the same processes that are described in relation to the impact evaluation, above, in terms of how we reviewed data and, in the case of interview data, coded it. The analysis of survey and interview data was structured around the research questions that underpin the process evaluation (see the Annex). After familiarising themselves with the data, SQW then used the qualitative software MaxQDA to conduct a robust structured analysis of the transcripts: each document was coded using a framework aligned to the study research questions.[17]

As with the impact evaluation, the limited sample sizes – particularly for the surveys – mean that our findings should be treated as indicative only. It is possible that the sample is biased insofar as interns and employers who feel particularly strongly about the scheme might have been more likely to participate in the research. Our findings were generally positive, perhaps indicating the sort of positive bias anticipated in the methods section, above.

3.4. Ethical considerations

All primary data collection required ethical approval. This was granted by the Faculty of Humanities, Arts and Social Sciences and International Studies Ethics Committee. The ethical approval reference number was 528394.

For the new primary (survey and interview) data collection, all prospective participants received an information sheet during recruitment. This provided them with the information they needed to give informed consent and detailed their rights. Prospective participants could also ask members of the research team questions before deciding whether to take part in the evaluation. If participants wished to, they could ask questions afterwards of the research team or raise concerns with the University's ethics committee. Participants who decided to take part in the evaluation were required to sign a consent form.

[17] This analysis therefore deviates from traditional thematic analysis (for example, that outlined by Braun and Clarke, 2012) as our codes were derived from the research questions, and analysis was structured around the research questions rather than the inductive generation of new, overarching themes.

4. Findings

4.1. Impact evaluation: findings

Below, we present a description of the data followed by the findings, which we present beneath each hypothesis.

Description of interview and survey data

Table 8: Description of interview and survey data

Data source	Sample size	Description
2023 intern survey	24 interns	Respondents were predominantly White or White British and aged under 21 or between 21 and 24 years old[18] More females than males responded to the survey Just under one third of respondents identified as disabled or chronically ill Half were first-generation University students Half were in receipt of a bursary (most commonly the "Access to Exeter" bursary from the University)[19] One third of respondents lived in geographical areas that were in the two lowest quintiles of participation in Higher Education, as according to POLAR4 data.[20]
Historical intern survey	85 interns	The historical intern surveys were run by the University of Exeter between 2018 and 2022

[18] Although WP questions in the survey were not compulsory

[19] "Access to Exeter" is a bursary automatically awarded to students from lower income backgrounds.

[20] We are confident that most respondents to the intern survey completed 140-hour internships on A2i. There is a possibility that some interns have logged 140 hours of internship for a different scheme, or that interns did not complete 140 hours for the A2i scheme. The ambiguity here results from the way A2i survey data is recorded.

Data source	Sample size	Description
		The greatest number of unique responses were received in 2019. Following matching with internal University records, the most common WP characteristic among respondents was being in receipt of the 'Access to Exeter' bursary, (25 respondents) followed by disability (24), living in a low participation neighbourhood (20) and being a first-generation University student (17).
Employer survey	22 employers	Education/Research was the most common sector that organisations operated in, followed by Arts and Culture. Roughly one third of organisations were micro-sized enterprises (between 0-9 employees), one third were small or medium-sized (between 10 and 249 employees) and one third were large (250 or more employees). Eight employers said their organisation was part of the University of Exeter; four were registered charities.
Intern interviews	14 interns	One-to-one discussions with interns who had completed, or were about to complete, an internship supported by A2i Interviews were conducted by a researcher from the University Verbatim transcripts were shared with SQW for analysis. The transcripts were fully anonymised with any identifiable information being redacted.
University staff interviews	21 staff	Mixture of one-to-one and group interviews Interviews were conducted by a researcher from the University

Data source	Sample size	Description
		Verbatim transcripts were shared with SQW for analysis. The transcripts were fully anonymised with any identifiable information being redacted Of the 21 staff members interviewed: • Two were responsible for the delivery of the A2i scheme in terms of administration, management and marketing • Three worked in the wider Careers Service supporting delivery of wider employment activities, which overlapped with the A2i team • Four were managers within the Careers Service and involved in the Universities Widening Participation and Student success strategy • Two led on the Universities' Access and Participation Plan • 10 were careers consultants who supported the face-to-face delivery of student employability support at the University.

Source: SQW

Descriptive statistics

The table below presents descriptive statistics describing the data used in the regression analysis, detailing the frequency of all the student and graduate outcomes considered in this study. Frequencies of all control variables used in the analysis, as well as other available demographic variables, are provided in the Annex.

Table 9: Frequencies of outcome variables

Outcome	Frequency	Percent
Hypothesis B		
Feeling well prepared for employment at graduation or at the start of the final academic year		
Yes	31,697	58.9%
No	22,078	41.1%
Activity six months after graduation matches plans for after graduation		
Yes	8,014	39.0%
No	12,552	61.0%
Activity 15 months after graduation matches plans for after graduation		
Yes	4,602	72.6%
No	1,737	27.4%
Hypothesis C		
Being in employment or further study (six months after graduation)		
Yes	11,785	54.5%
No	9,840	45.5%
Having 'graduate level' responsibilities in one's job (for those in employment six months after graduation)		
Yes	4,054	65.1%
No	2,171	34.9%

Being in employment or further study (15 months after graduation)		
Yes	6,925	77.7%
No	1,989	22.3%
Achieving a 'positive' outcome as defined by the Guardian (15 months after graduation)		
Yes	6,991	83.4%
No	1,388	16.6%
Graduate agrees they have utilised the skills they have learnt during their studies in their current activity (15 months after graduation)		
Yes	1,673	58.6%
No	1,181	41.4%
Graduate agrees their current activity is meaningful (15 months after graduation)		
Yes	2,337	81.9%
No	515	18.1%
Graduate agrees their current activity fits in with their plans for the future (15 months after graduation)		
Yes	2,099	73.5%
No	758	26.5%

Source: SQW

Below, we also present cross-tabulations of all outcome variables and treatment, using our main comparison, i.e. any internship versus no internship. Across all student and graduate outcomes, the proportion of students achieving a positive outcome was higher

in the treatment group (those with an internship experience) than in the comparison group (those without an internship experience).

Table 10: Frequencies of outcome variables cross-tabulated by treatment and comparison conditions

Outcome	Treatment group: any internship	Comparison group: no internship
Hypothesis B		
Feeling well prepared for employment at graduation or at the start of the final academic year	73.6%	50.7%
Activity six months after graduation matches plans for after graduation	41.7%	34.6%
Activity 15 months after graduation matches plans for after graduation	75.6%	69.0%
Hypothesis C		
Being in employment or further study (six months after graduation)	55.2%	51.5%
Having 'graduate level' responsibilities in one's job (for those in employment six months after graduation)	75.5%	55.2%
Being in employment or further study (15 months after graduation)	82.0%	74.1%
Achieving a 'positive' outcome as defined by the Guardian (15 months after graduation)	88.3%	77.7%

Graduate agrees they have utilised the skills they have learnt during their studies in their current activity (15 months after graduation)	61.7%	52.4%
Graduate agrees their current activity is meaningful (15 months after graduation)	83.2%	79.8%
Graduate agrees their current activity fits in with their plans for the future (15 months after graduation)	77.8%	67.9%

Source: SQW

Cross-tabulations for all the alternative formulations of treatment and comparison groups can be found in the Annex.

> *Hypothesis A: a greater number of internships takes place as a result of A2i than would otherwise be the case (in the scheme's absence)*

Students said they generally apply to A2i because it complements their existing motivations, as opposed to A2i separately prompting students to take on internships.

> *I had three main motivations: (1) starting my experiences on the career ladder, (2) getting a new job experience that would add to my CV, and (3) getting paid fairly.* (Intern interviewee)

Crucially, intern interviewees explained A2i removed financial barriers to participating in internships. Without the funding, they said the internships would not have been possible because of the financial constraints. Several interns said they would have completed the internship without A2i but would have needed to supplement this with other paid work (thus reducing the quality of the internship experience).

> *A2i allowed me to get fully immersed in the experience, because I did not have to get another paid job at the same time.* (Intern interviewee)

Intern survey results and interviews indicate that students did not believe that they would have been successful in securing an internship placement without the funding provided by A2i (see Figure 1, below). When the students who said in survey responses that they did not believe they would have been successful were asked to explain their response, the most common reason was that the organisations they interned with (which included charities, start-ups and University of Exeter departments) would not have had the resource internally to fund the internships. Most interns said during interviews that, without the scheme, they would not have completed their internship.

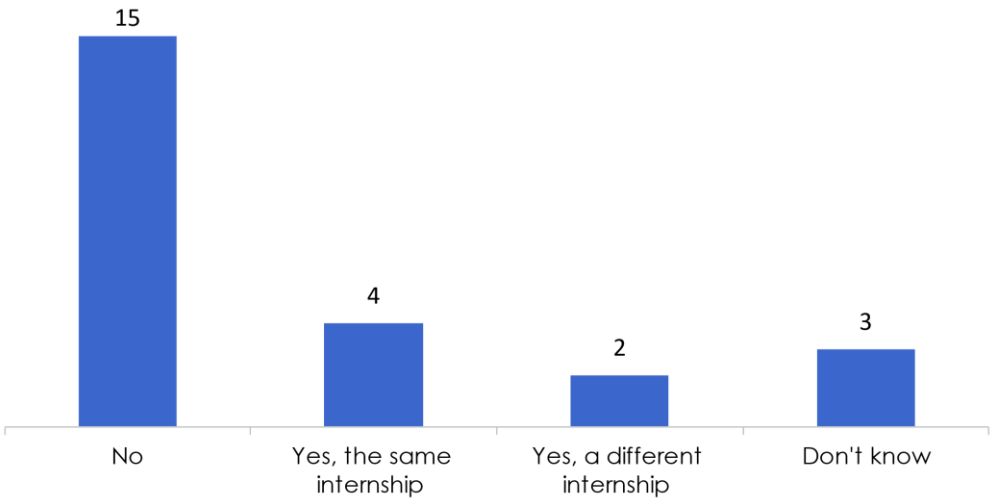
A2i just gives you that opportunity to go and get experience which you might not get elsewhere, and I would definitely recommend it to other students. (Intern interviewee)

Evidence from consultations of both interns and University staff members indicated that A2i was particularly useful in supporting internships for students who:

- lack confidence
- were unable to afford unpaid internships
- sought internships with employers who otherwise do not offer them

There is no way I would have been able to do this without A2i because the company that I went with don't offer internships. (Intern interviewee)

Figure 1: Do you believe you would have been successful in securing an internship placement without the funding provided by Access to Internships (A2i)? (n=24)



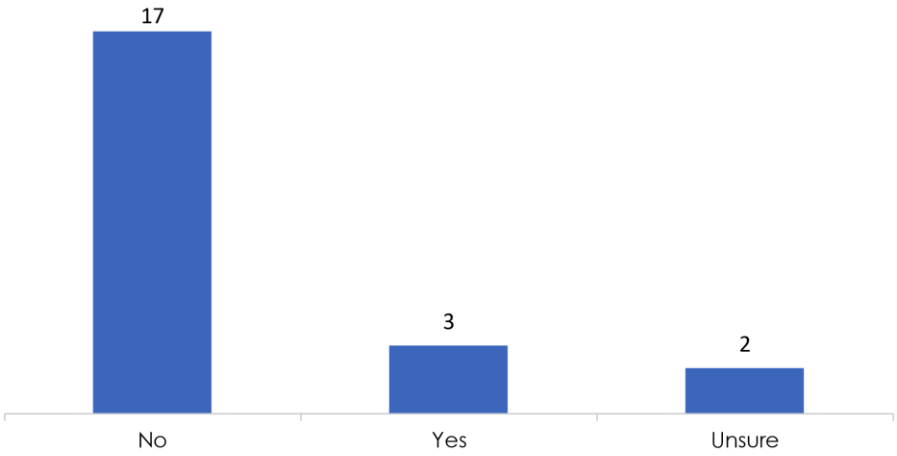
Source: SQW analysis of 2023 intern survey

The majority of respondents to the employer survey (17 employers) corroborated this, saying they would not have offered the internship placement if they did not receive funding through A2i. The main reason for this was affordability: employers would not have had the resources to offer a paid internship without the funding from A2i. Whilst one employer said they would offer an unpaid placement, several emphasised that

interns should be paid for the work they undertake as a point, a), of principle, and, b), of practicality as most students work part-time and cannot afford to do unpaid work on top of their studies.

This is an important finding in terms of demonstrating A2i's additionality. Its strength as a finding is weakened by the small sample size (which, as discussed previously, may be positively biased). That said, across the 22 responses analysed, there were a range of sectors covered, and the sample broke down into approximately one third micro-organisations, SMEs and larger organisations and, of the 14 who are not part of the University of Exeter, some were private, some charitable. This means that although the survey sample is small, it nonetheless captures a range of employer perspectives. While this study's findings *might* be reflective of other employers' experiences, the only way to be sure would be to survey a larger number of employers.

Figure 2: Would you have offered the internship placement to the intern if you did not receive funding through the Access to Internships (A2i) scheme? (n=22)



Source: SQW analysis of employer survey

Interns and University staff members said during interviews that the duration of the A2i internship allowed interns to successfully develop career-relevant skills and experiences. The option to flexibly spread the timing of the internship was also important, as it allowed the interns and employers to tailor the scheme to their needs. There appeared to be no substantial differences in outcomes achieved between interns who completed the internship intensively (e.g. 140 hours over a four-week period), or

those that did it more flexibly (e.g. spreading their hours over a longer period)[21], despite their experiences being different. We tentatively conclude – on the basis of limited evidence – that the scheme's value is derived from the provision of experience in a role and workplace setting and is not strictly contingent on the shape and structure of the internship.

Hypothesis B: students participating in A2i boost their career-relevant knowledge and skills and, specifically, their:

a. *career-relevant personal skills*

Survey and interview data indicates that interns feel the A2i scheme helped them develop a range of career-relevant skills. Respondents to the 2023 and historical surveys said that the A2i internships have helped them to improve career-relevant skills such as teamwork and communication.[22] Asked which skills the internship helped develop, respondents to historical surveys (2018 – 2022) cited teamwork, collaboration, problem solving, researching and time management:[23]

Figure 3: Which of these skills have you developed? (n=85)

[21] Please note that the evaluation did not test whether there is a relationship between the number of hours completed and outcomes achieved as we did not have a 'dosage' comparator.
[22] The surveys ask about this in different ways: the 2023 survey asks about the extent to which participants agree the internship has helped them to improve skills needed in the workplace; historical surveys asked respondents which specific skills they developed on the internship.
[23] Please note that over time the phrasing of questions and response options in surveys has changed. This finding presents an overall summary.

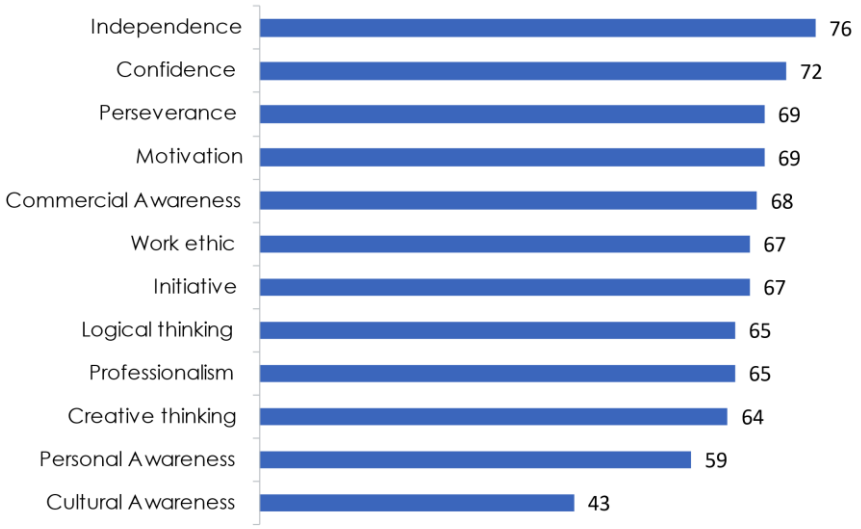
Source: University of Exeter analysis of historical intern surveys

Survey respondents almost unanimously agreed that A2i internships had improved their personal attributes, such as resilience and motivation (one intern in 2023 disagreed A2i had improved these attributes). This corresponds with historical survey responses, through which interns indicated that the attributes they felt internships helped them develop included independence, perseverance, and motivation:[24]

All survey respondents who were asked said internships had boosted their employability skills. The majority of intern consultees said A2i was their first 'professional' work experience and led to the initial development of professional skills and a general enhanced awareness of the requirements of working in a professional environment. Interns described how the experience developed their communication skills, for example through delivering presentations, communicating complex information, and providing updates to colleagues. They said it had improved their ability to work with diverse teams and external stakeholders, and to manage their time.

Figure 4: Which of these personal attributes have you developed? (n=85)

[24] Please note that over time the phrasing of questions and response options in surveys has changed. This finding presents an overall summary.



Source: University of Exeter analysis of historical intern surveys

A smaller proportion of interns developed specific technical skills, which tended to be job specific. Examples included the use of specific software, project management, data analysis, research skills or new product development.

> *I gained invaluable references, skills, communication skills and more […]. Without [the internship] there is no doubt; I wouldn't have been able to get that*. (Intern interviewee)

Intern interviewees said that some of the skills they developed on the scheme might be beneficial to their careers but were more immediately relevant to their degree studies. For example, several interns said that completing A2i internships had improved their time management, research skills and writing.

> *I have learned a lot about certain research methods that are coming in handy this year for my module*. (Intern interviewee)

b. <u>role- or sector-specific knowledge</u>

Survey and interview data indicates that interns feel the A2i scheme helped them develop their role- and sector-specific knowledge. All intern respondents to the 2023 survey – and the majority of respondents in historical surveys – indicated (some in open text responses) that they had gained experience, knowledge and/or connections within a specific occupation or field. Interviews explored this in greater depth, and some of the technical skills respondents said they had learnt while on internships included using Adobe Design software and submitting financial reports. Others talked about developing

more ‘generic’ organisational knowledge, such as how organisations manage their finances or navigate hybrid working.

Survey and interview responses highlighted the breadth of organisations and sectors in which internships were completed, covering public, private and third sectors, as well as academia.

> *A2i gives students a valuable opportunity to work for an organisation that might not otherwise be able to hire them, and therefore provides a chance for students to gain exposure to sectors than otherwise possible.* (University staff interviewee)

Furthermore, interviewees said their internship had given them practical insights about the employer and sector’s ‘inner workings’, for example: how employers’ products, services or activities fit within a broader sector landscape; knowledge of supply chains and customer and client groups; the social, economic, and political contexts and pressures of different sectors; how and why organisations can innovate or change; and learning around organisational structures and management processes.

The change interns described in terms of their knowledge of roles and sectors is important but modest, perhaps unsurprising given the internships last approximately 140 hours and that learning is ‘on the job’ as opposed to something more structured. Some interns developed role-specific skills and knowledge they believe will be directly relevant to their future careers.

c. *confidence and ability to pursue relevant career pathways*

Interns said in surveys and interviews that A2i internships gave them greater confidence and ability to pursue relevant career pathways. Several interns reported in interviews that the skills and experiences they obtained through A2i had directly supported their applications for subsequent jobs. They said this was because the internship provided experience and references which they could quote on their CVs. Furthermore, the internship provided a professional network that some interns used to learn of job opportunities, something both interviewees and survey respondents reported.

> *A2i was really helpful because it showed me that I had certain skills I could use that I didn’t know I had. So it’s really widened the possibilities now that I’m looking for an actual job*. (Intern interviewee)

All respondents to the 2023 intern survey agreed their job prospects had improved as a result of the internship, partly as a result of receiving learning and development opportunities deemed helpful for their future careers (n=24). The majority of respondents to the historical surveys said the experiences gained through their internship would inform and support their career plans. We take this as an indication

that A2i participants felt the scheme improved their ability to pursue relevant career pathways.

Some University staff said in interviews that the structure of the A2i scheme itself boosts students' confidence, because they have to actively seek out and secure internship opportunities. Students generally attributed boosts in their confidence to the completion of the internship itself, rather than the application process.

These survey and interview findings are further supported by the regression analysis (see Table 11). Where results were statistically significant, we present the marginal effects, i.e. the estimated effect in terms of the change in expected probability of outcomes associated with internships.

Across different formulations of the treatment and comparison groups, we observed a consistent pattern suggesting internship participants (both A2i and other interns) were more likely to feel well prepared for employment towards the end of their undergraduate studies.[25] This is statistically significant at the 1% level. There was no differential effect for A2i participants relative to those undertaking other internships.

Moreover, internship participants were more likely to follow their plans for after graduation shortly after finishing their studies (within the first six months).[26] This could be due to an increased ability to secure employment/further study (including before the end of undergraduate study). However, this effect is not present 15 months after graduation.[27]

[25] Based on the latest available Careers Registration Survey data. If graduation data is unavailable, data collected at the start of the final year is used instead.

[26] 'Activity six months after graduation matches plans for after graduation' outcome. Activity six months after graduation is based on Careers Destination Survey data. Plans for after graduation is based on Careers Registration Survey data collected at graduation or at the start of the final academic year.

[27] 'Activity 15 months after graduation matches plans for after graduation' outcome. Activity 15 months after graduation is based on Graduate Outcomes Survey data. Plans for after graduation is based on Careers Registration Survey data collected at graduation or at the start of the final academic year.

Table 11: Confidence and ability to pursue relevant career pathways – findings from regression analysis

Outcome	**Treatment:** any internship experience **Comparison:** no internship experience	**Treatment:** any internship experience **Comparison:** no work experience	**Treatment:** A2i participants **Comparison:** no internship experience	**Treatment:** A2i participants **Comparison:** no work experience	**Treatment:** A2i participants **Comparison:** other internship experience (excl A2i)
Feeling well prepared for employment at graduation or at the start of the final academic year	Comp. group prob.: 0.531 Marginal effect: 0.206 n=10,305, **	Comp. group prob.: 0.312 Marginal effect: 0.428 n=6,006, **	Comp. group prob.: 0.527 Marginal effect: 0.173 n=4,758, **	Comp. group prob.: 0.295 Marginal effect: 0.399 n=454, **	Not statistically significant n=5,776
Activity six months after graduation matches plans for after graduation	Comp. group prob.: 0.365 Marginal effect: 0.087 n=6,547, **	Comp. group prob.: 0.328 Marginal effect: 0.126 n=3,875, **	Comp. group prob.: 0.363 Marginal effect: 0.148 n=2,937, **	Comp. group prob.: 0.301 Marginal effect: 0.232 n=263, **	Not statistically significant n=3,767
Activity 15 months after graduation matches plans for after graduation	Not statistically significant n=1,556	Not statistically significant n=1,075	Not statistically significant n=524	Sample size too small	Not statistically significant n=1,060

Source: SQW

Note: Significance levels: +0.10, 0.05, 0.01**. Results are only reported if the difference between the treatment and comparison group is statistically significant. If that is the case, green (positive) and orange (negative) colours refer to the direction of the effect, respectively, and marginal effects are reported for ease of interpretation. The significance levels relate to the difference between the treatment and comparison group estimates. 'Sample size too small' refers to regressions where coefficients were omitted in the regression results due to an insufficient number of observations. 'Comp. group prob.' refers to comparison group probability.*

d. *knowledge of relevant career pathways, as a result of the internships*

Interns said in surveys and interviews that the A2i scheme gave them knowledge they could use to make informed decisions about their future career pathways. 2023 intern survey respondents said the internship had taught them about graduate-level work, and the skills they would need to succeed in this. 13 of 22 interns who were asked in the historical surveys indicated that they were more aware of future opportunities in their chosen field as a result of their internship.

Furthermore, many interns stated during interviews that A2i enabled them to 'test out' whether a role or sector was right for them. Whether or not the intern still wanted to work in that role or sector, this knowledge was considered useful. Some interns said they gained these insights by working alongside professionals at different stages of their own career journeys, and found speaking to senior colleagues particularly helpful, something that is more likely to occur in smaller organisations (this is explored in the process evaluation, below).

> *A2i is really about giving student an insight into an area that hopefully they're interested in, so that it can inform their career decisions*. (University staff interviewee)

Hypothesis C: the internship helps:

a. *participating students to achieve better graduate outcomes than those who did not undertake any internships*

There was widespread belief among interns, employers and University staff involved in interviews that the scheme has a positive effect on graduate outcomes, to the extent the University likes to promote it to students considering applying to study at Exeter.

> *I think A2i is one of the best things that the University offers*. (Intern interviewee)

The regression analysis of graduate outcomes provides evidence of a positive relationship between undertaking an internship and achieving 'positive' outcomes after graduation. While the estimates cannot be interpreted as causal (as explained in the methodology section), we observe a relatively consistent pattern of positive associations between internships and positive graduate outcomes (see Table 12 below).

For all statistically significant results, we present the marginal effects, i.e. the expected change in the likelihood of reporting an outcome that is associated with doing an internship (controlling for individual characteristics).

In our main comparison of internship participants (any internship, not just A2i) against those without any internship-like experience, we found internship participation is associated with:

- a higher likelihood of being in employment or further study both six and 15 months after graduation
- a higher likelihood of having 'graduate-level' responsibilities in one's job six months after graduation, and
- a higher likelihood of achieving a 'positive' Guardian outcome[28] 15 months after graduation.

All of these relationships were statistically significant at the 1% level.

We also tested these for internship participants versus those without any work experience, which included people without internships but also without any other form of work experience such as part-time jobs alongside studies, self-employment, or a position of responsibility in a student society. This is a 'purer' comparison group but also decreased our sample size leading to more uncertainty around estimated coefficients. Where the estimated relationships were statistically significant, the size of the effect seemed to be larger than when comparing internship participants against those without any internship experience (but who might have had other work experience).

Similarly, the comparison of A2i participants against those without any internship experience and those without any work experience suggests internship participants were more likely to achieve positive graduate outcomes. Where the relationships were statistically significant, the correlation between A2i participation and positive outcomes appeared stronger than when comparing all internship participants (not just A2i) against those without any internship/work experience.

In order to statistically test whether there is a differential effect of undertaking an A2i internship relative to other internships, we ran regressions comparing A2i participants against all other students undertaking internships. The only statistically significant result was for employment or further study six months after graduation. This might be due to a number of reasons, e.g.: the structure and duration of A2i internships led to benefits in terms of greater ability to secure employment or further study shortly after graduation; A2i participants were on average more motivated; or random sampling.[29] Moreover, the

[28] See the methodology section for more detail.

[29] This means there is a small chance this is due to the composition of the sample - if there is no difference between the two groups, there is a small probability we might get a statistically significant result.

difference between A2i and other internship participants seemed to disappear 15 months after graduation, pointing to the latter group ‘catching up’ with A2i students as more time passes. One possible explanation could be that A2i gave students an added boost upon graduation, but that this boost was not sustained. Another is that non-A2i internship participants (who might be less disadvantaged) were more likely to go travelling after graduation.

Table 12: Comparison of graduate outcomes – main results

Outcome	**Treatment:** any internship experience **Comparison:** no internship experience	**Treatment:** any internship experience **Comparison:** no work experience	**Treatment:** A2i participants **Comparison:** no internship experience	**Treatment:** A2i participants **Comparison:** no work experience	**Treatment:** A2i participants **Comparison:** other internship experience (excl A2i)
CDS outcome: Being in employment or further study (six months after graduation)	Comp. group prob.: 0.559 Marginal effect: 0.060 n=6,792, **	Comp. group prob.: 0.524 Marginal effect: 0.094 n=3,994, *	Comp. group prob.: 0.558 Marginal effect: 0.220 n=3,078, **	Comp. group prob.: 0.485 Marginal effect: 0.314 n=278, **	Comp. group prob.: 0.614 Marginal effect: 0.122 n=3,874, **
CDS outcome: Having 'graduate level' responsibilities in one's job (for those in employment six months after graduation)	Comp. group prob.: 0.577 Marginal effect: 0.161 n=2,017, **	Not statistically significant n=1,261	Not statistically significant n=797	Sample size too small	Not statistically significant n=1,246
GOS outcome: Being in employment or further study (15 months after graduation)	Comp. group prob.: 0.777 Marginal effect: 0.057 n=2,072, **	Not statistically significant n=1,340	Comp. group prob.: 0.768 Marginal effect: 0.118 n=798, +	Sample size too small	Not statistically significant n=1,313

GOS outcome: Achieving a 'positive' outcome as defined by the Guardian (15 months after graduation)	Comp. group prob.: 0.822 Marginal effect: 0.076 n=1,949, **	Comp. group prob.: 0.752 Marginal effect: 0.150 n=1,269, +	Comp. group prob.: 0.813 Marginal effect: 0.153 n=748, **	Sample size too small	Not statistically significant n=1,234

Source: SQW

Note: Significance levels: +0.10, 0.05, 0.01**. Results are only reported if the difference between the treatment and comparison group is statistically significant. If that is the case, green (positive) and orange (negative) colours refer to the direction of the effect, respectively, and marginal effects are reported for ease of interpretation. The significance levels relate to the difference between the treatment and comparison group estimates. 'Sample size too small' refers to regressions where coefficients were omitted in the regression results due to an insufficient number of observations. 'Comp. group prob.' refers to comparison group probability.*

In addition to the main graduate outcomes presented above, we also looked at three additional measures from the Graduate Outcomes Survey (see Table 13): whether graduates think they have utilised the skills they have learnt during their studies in their current activity; whether graduates think their current activity is meaningful; and whether graduates think their current activity fits in with their plans for the future. These questions were answered by significantly fewer respondents (sample sizes between 69% and 77% smaller than for the GOS outcome of employment/further study 15 months after graduation). We did not identify consistent benefits for internship participants in terms of the first two measures. There was, however, some indication that internship participants were more likely to think their activity 15 months after graduation fitted with their plans for the future, pointing to a correlation between undertaking an internship and being on track to achieve one's career goals a year after graduation.

Table 13: Self-assessment measures – regression analysis results

Outcome	**Treatment:** any internship experience **Comparison:** no internship experience	**Treatment:** any internship experience **Comparison:** no work experience	**Treatment:** A2i participants **Comparison:** no internship experience	**Treatment:** A2i participants **Comparison:** no work experience	**Treatment:** A2i participants **Comparison:** other internship experience (excl A2i)
GOS outcome: Graduate agrees they have utilised the skills they have learnt during their studies in their current activity (15 months after graduation)	Not statistically significant n=599	Not statistically significant n=350	Sample size too small	Sample size too small	Sample size too small
GOS outcome: Graduate agrees their current activity is meaningful (15 months after graduation)	Not statistically significant n=577	Not statistically significant n=320	Sample size too small	Sample size too small	Sample size too small
GOS outcome: Graduate agrees their current activity fits in with their plans for the future (15 months after graduation)	Comp. group prob.: 0.683 Marginal effect: 0.095 n=589, *	Comp. group prob.: 0.243 Marginal effect: 0.522 n=334, +	Sample size too small	Sample size too small	Sample size too small

Source: SQW

Note: Significance levels: +0.10, 0.05, 0.01**. Results are only reported if the difference between the treatment and comparison group is statistically significant. If that is the case, green (positive) and orange (negative) colours refer to the direction of the effect, respectively, and marginal effects are reported for ease of interpretation. The significance levels relate to the difference between the treatment and comparison group estimates. 'Sample size too small' refers to regressions where coefficients were omitted in the regression results due to an insufficient number of observations. 'Comp. group prob.' refers to comparison group probability.*

b. *The internship helps narrow the gap in graduate outcomes between WP and non-WP groups between those who undertook an internship relative to those who did not undertake any internships.*

University staff interviewed said they feel the A2i scheme has the potential to help close gaps between WP and non-WP groups although their evidence for this is anecdotal.

As part of the regression analysis, we ran regressions for the main graduate outcomes variables (employment/further study six and 15 months after graduation) which included an interaction term between WP status and internship participation. This meant that a positive and statistically significant relationship would point to a possible differential effect of internships for WP students, i.e., WP students experiencing greater benefits from internships than non-WP students, leading to a narrowing of the gap in graduate outcomes between the two groups. Results from this analysis, for the interaction term between internship participation and WP status, are presented in Table 14 below. Results for the coefficients on internship participation and WP status can be found in the Annex.

When comparing internship participants to those without any internship experience, results suggest the association between undertaking an internship and achieving good graduate outcomes six months after graduation was stronger for WP students than the non-WP group. This effect is, however, not sustained 15 months after graduation. When comparing internship participants against those without any work experience, results were statistically insignificant for both outcomes.

The regression analysis provided mixed evidence for the role of internships in helping to close the gap between more and less disadvantaged students. This might, however, be partially due to the way WP status is defined. Under the WP definition used by A2i[30], 59% of the sample (containing close to 55,000 students) was classified as WP. As a result, the WP group used in the analysis likely included students who have experienced a wide variety of levels of disadvantage and representation in HE, making the two groups more similar.

[30] See the methodology section for more detail.

Table 14: Differential effect of undertaking an internship for WP vs non-WP groups (interaction term between WP status and internship participation) – results

Outcome	**Treatment:** any internship experience **Comparison:** no internship experience	**Treatment:** any internship experience **Comparison:** no work experience
CDS outcome: Being in employment or further study (six months after graduation)	No internship and non-WP group probability: 0.550 Marginal effect for internship participation:0.034 Marginal effect for WP status: 0.016 Additional marginal effect for interaction of both internship participation and WP status: 0.047 n=6,792, *	Not statistically significant n=3,994
GOS outcome: Being in employment or further study (15 months after graduation)	Not statistically significant n=2,072	Not statistically significant n=1,340

Source: SQW

Note: Significance levels: +0.10, 0.05, 0.01**. Results are only reported if the difference between the treatment and comparison group is statistically significant. If that is the case, green (positive) and orange (negative) colours refer to the direction of the effect, respectively, and marginal effects are reported for ease of interpretation. The significance levels relate to the difference between the treatment and comparison group estimates.*

Hypothesis D: A2i interns help improve the performance of host employers and offer employers a diverse talent pipeline

Interns surveyed in 2023 said they believed their contribution increased their host organisation's capacity to deliver specific tasks or work (n=23). Responses to the historical surveys indicate interns felt they make the biggest contributions[31] in research and learning processes/engagement (11 responses), this was followed by increased organisational potential (eight responses), better customer understanding/retention (seven responses) and improved social media pages, websites or digital communications (five responses).[32]

Employers responding to their survey broadly agreed, although four (of 22) disagreed. Employers gave examples of the ways in which interns had made positive contributions to their organisations, and these included:

- Helping to run events, e.g., one intern helped to organise and run an international philosophy conference; another supported the delivery of programmes and events
- Managing social media accounts and developing an organisation's social media presence, e.g., one intern managed a museum's Instagram account and helped to create a children's section on museum's website
- Making IT improvements, e.g., one intern used their computer skills to create an admin package for stock control
- Carrying out research tasks, e.g., one intern worked as a research assistant and helped an academic to deliver a research paper; the academic said they would not have been able to produce the paper in time without the intern's research

In several instances this has been demonstrated by employers offering either to extend the internship for their intern or, in one instance, offering employment after its completion. However, most employers said they were unable to offer this due to a lack of funding or available positions (as opposed to the quality of the intern).

Interns generally felt their internship had informed their host organisation's longer-term plans for recruiting and managing students. However, a little under half of employers said the experience of hosting an intern through A2i had improved their delivery and management of such placements and 10 of 22 employers said they felt the internship

[31] This included questions about interns' 'biggest achievements' and 'outputs and outcomes produced for employers'.
[32] Responses were categorised more than once, meaning individuals might have mentioned more than one area.

improved their ability to recruit students from the University of Exeter (with six disagreeing, and six saying the question is 'not applicable').

4.2. Process evaluation: findings

This section provides an overview of the key findings from the process evaluation.

The most commonly cited reasons in the surveys by students for undertaking internships were to gain experience, knowledge and/or connections within a specific occupation or field, and to improve job prospects.

Figure 5: Which if any of these were reasons that you wanted to undertake the internship? Select all that apply (n=24)

Source: SQW analysis of 2023 intern survey

All except one respondent to the 2023 intern survey agreed that it is easy applying to the scheme, a view that was corroborated during intern interviews. Interns said the A2i website, A2i team and careers consultants provided useful additional information about the scheme.

> *Filling out the form was very easy. It was well structured, and it took a little bit of time, but it contained questions that made sense*. (Intern interviewee)

During interviews, interns made suggestions for how the application process could be improved. These suggestions included providing:

- word counts for applications

- an application portal so applicants can see the status of their applications
- additional signposting to existing resources including: one-to-one support from the A2i team for students who want it; example text that students can adapt when making initial approaches to host organisations; CV and interviewing tips, and; lists of employers who have previously provided internships and would be willing to do so again (some interns interviewed were unaware that these resources exist)
- clearer information about the scheme on the website and clarification about the availability of funding throughout the year. Specifically, funding is budget dependent and has previously been fully allocated prior to the deadline dates outlined on the website. This has sometimes meant students with opportunities ready cannot secure funding. Clarity on exactly what funding is available, and when, would help reduce the chances of this scenario arising
- 'early approval' of funding, so that students can reassure prospective host organisations that their costs will be covered
- opportunities for prospective interns to speak with A2i alumni about their experiences of the scheme

Some interns suggested that the scheme's advertising could more effectively raise awareness of its existence among target groups.

2023 survey responses indicate that, where interns *have* received support from the A2i team in sourcing internships, approaching employers and writing applications, most were satisfied. A small number expressed dissatisfaction in their survey responses. A relatively high proportion of 'not applicable' responses (approximately half across these different areas) is perhaps unsurprising given A2i generally provides funding for internships that students themselves have arranged.

> *The overall approach of the team is one of helping empower students to find their own internship.* (University staff interviewee)

Most interns said they were satisfied with the support they received from the A2i *during* their internship (n=24). Three said they were dissatisfied; four said this was not applicable. Where interns suggested improvements, these generally related to the amount of communication received from the A2i team while on the internship. Interns suggested weekly communication would be about right. During interviews, interns said that where they proactively contacted the A2i team for support, they received prompt, helpful responses.

When asked what worked well about participating in the A2i scheme, three respondents to the employer survey praised the support and communication they received from the A2i team. For example, one employer said “the staff who manage the A2i scheme have been fantastic to work with. They are always really willing to help and provide useful information”. That said, the requirement for organisations to put interns on their payroll sometimes gets pushback:

> *We sometimes get a bit of pushback from employers around the requirement for interns to be on their payroll, but we mediate this process and make the details of the grant repayment process as clear as possible*. (University staff interviewee)

After the internships have completed, the A2i team circulate feedback forms but, otherwise, no support is offered to students on completion of their internships. Some interns suggested during interviews that attending alumni sessions to discuss their experiences could be useful, although the outcomes sought from such a session would need to be clearly defined. However, it might be more important for A2i to follow up with employers after internships to try and build relationships (and thus build the pool of potential host organisations for future internships):

> *I think we could be more proactive with employers after the internship, particularly those that would be interested in taking on another intern. We could keep them engaged through a network or contact group*. (University staff interviewee)

While on their internships, all respondents to the 2023 intern survey strongly agreed that they had received learning and development opportunities which could be helpful for their career (such as online courses or mentoring). Some intern interviewees stated that working with senior colleagues was particularly motivating and encouraged them to think more specifically about career objectives post-University. A number of interns stated that completing an internship in an SME gave them relatively unique experiences, as they were able to work closely with senior managers and business owners. This may have been unlikely had they completed a more ‘mainstream’ internship outside of A2i, likely within a large corporate environment, and was helpful for gaining closer perspectives into the skills, roles and responsibilities of senior staff.

> *A2i is really good in that interns are likely to get contact with more senior staff working at the top of an organisation, and work with these people on a day-to-day basis*. (University staff interviewee)

All of the respondents to the employer survey said they provided learning and development opportunities for their intern. Opportunities were wide ranging and included both role- and sector-specific training. Examples included training on:

- Library research skills
- Creating social media content
- Object handling in museums
- Raven Sound Analysis software
- Sustainability, e.g., the Sustainable Development Goals; the value of sustainability in investment outcomes

Respondents to both the intern and employer surveys said that awareness of A2i amongst the student population seemed to be low and that the scheme should be advertised more widely to tackle this. Interns interviewed suggested that there are a reasonable number of students who are aware of the scheme but may not realise they are eligible. Some interns stated that it is quite likely that promotional emails might be missed by students, given the number of other emails they receive. In essence, despite the efforts by the A2i team to promote the scheme, uptake remains to an extent reliant on students' own research. Lecturers and wider university staff could be a useful lever for raising awareness, as these staff are often students' first port of call for career advice. Similarly, several intern interviewees felt the scheme's profile on social media should be heightened, for example sharing case studies of 'success stories'. Interns felt University staff lack awareness of the scheme (in turn limiting the extent to which staff signpost students to A2i).

> *I don't remember speaking to any Lecturers who knew the scheme existed at all*. (Intern interviewee)

Current monitoring by the A2i team of the scheme takes place at two key points: the application stage, and at completion. University staff said that data about the scheme's wider impact on students' employment and academic outcomes could be improved. University staff would like to develop stronger data on outcomes between different student groups (including those with widening participation characteristics). Part of this is about securing better completion rates for the scheme's surveys; part of this is about improving linkages across the University's existing internal datasets. Furthermore, University staff would like to improve data about the employers that students contact to make enquiries about the scheme, and their 'conversion rate' (i.e., the number of internships that result from this).

5. Discussion

5.1. Discussion of findings, linking the IE and qualitative results.

5.1.1. 'Contribution Analysis' of A2i leading to observed outcomes and additionality

Based on the evidence we have assembled[33], combining insights from survey responses from interns and employers, interviews with interns and University staff, and our regression analysis of student outcomes, we believe that:

a) The Theory of Change developed for the scheme gave a plausible depiction of the A2i scheme's potential impact on its beneficiaries (interns, the University, and employers), and on the pathways to these impacts

b) The scheme was delivered as intended, providing funding for 142 internships taking place in 2022/23, lasting approximately 140 hours each – although intern and employer survey responses indicate that some internships lasted for less than 140 hours. All students awarded places met the WP criteria, and the scheme's full allocated budget for the academic year is on track to be spent

c) Specifically, and based on the evidence presented, above (and the intern and employer interview and survey testimony in particular), we believe it is likely that the availability of the A2i scheme has generated additional internships that would not otherwise have taken place. Interns said in interviews and surveys that, without the fund, they would not have been able to afford an internship. Likewise, the majority of employers surveyed (admittedly a small but reasonably well-distributed sample) also said they would not have run the internships without the A2i funding

d) Furthermore, our regression analysis presented above indicated that the A2i scheme is associated with improved employability outcomes for its participants over and above, i), students participating in other internships at six months and, ii), students not participating in any internships. This finding is not causal because of the potential self-selection issues. Nevertheless, self-selection was less of an issue where the comparison group included other non-A2i interns and yet we still observe improved outcomes for A2i participants in the first six months after graduation

[33] We outline in the recommendations for future evaluation, below, how Contribution Analysis can be further strengthened.

e) Therefore, and because of who the internships target – students with WP characteristics – the key beneficiaries were students who might otherwise have been less likely to benefit from more general internship and employability schemes

f) In turn, it seems reasonable that the A2i scheme may play a role in closing an outcomes gap between WP and non-WP student groups. This final claim is strengthened by the outcomes regression analysis, which suggested the association between undertaking an internship and achieving good graduate outcomes six months after graduation was stronger for WP students than the non-WP group.

5.2. Caveats

As has already been explained elsewhere in this study, our findings come with several important caveats, some of them practical, some conceptual.

Some of the practical caveats include the fact that the University combined different historical surveys containing some different questions and responses. While we believe we have drawn reasonable and proportionate conclusions (and been transparent about the findings to which this applies), greater alignment between the historical surveys would have brought additional clarity.

Furthermore, the relatively small sample sizes for the surveys needs to be considered. While we cannot by definition know what non-respondents would have said, we assume their responses may have been less positive. That said, our regression analysis also highlights some positive associations between the A2i scheme and student outcomes, so we do not expect that obtaining a larger survey sample would dramatically alter the overall findings of this study.

Due to the self-selection bias, and in particular unobservable characteristics such as students' motivation or ambition, the relationships estimated through the regression analysis can only be interpreted as correlation rather than causation. While the results are useful insofar as they provide evidence of a link between internships and positive outcomes after graduation (as was hypothesised in the Theory of Change), the regression analysis was limited in its ability to evidence the impact of the scheme. In the absence of experimental approaches (such as a randomised controlled trial), selection of 'participation' is almost inevitably associated with confounding factors which might lead to biased estimates in statistical analyses. Nevertheless, future evaluations could explore quasi-experimental approaches, such as propensity score matching, to mitigate the risk of selection bias.

Moreover, the validity of the findings from the regression analysis might have been affected by gaps in the data used to construct the comparison group. As explained earlier, the availability of data on students' work experience in the final year of study is limited, which leads to a trade-off between maximising sample size and 'purity' of the comparison group. In this evaluation, the choice was made to not exclude students with gaps in the graduation data in order to avoid losing too many observations. As a result, there might have been some misclassification into treatment and comparison groups (i.e. the comparison group might have included some 'treated' students), which could have biased the internship coefficients downwards. In addition, the evaluation considered the difficulty of selecting the right comparison group in estimating the effect of internships. While some considerations had to do with the nature of the available data, others were more conceptual. For example, should the comparison group contain students with no form of work experience, or students with some forms of work experience that may generate similar benefits to the A2i scheme? Our study deployed different possible approaches and the A2i team should continue to consider which approach suits their evaluation needs best.

Finally, it was hypothesised that the scheme contributed to closing the gap between WP and non-WP students by enabling disadvantaged students to access internship opportunities which, given their likely lower social capital and less developed networks, would lead to greater benefits than in the case of less disadvantaged students. The evaluation found mixed evidence for this, with the differential effect of internships for WP students disappearing with time. However, using the WP definition as a proxy for disadvantage is potentially problematic. As the analysis showed, the definition is broad enough to apply to nearly 60% of students, which likely includes many students who are not in fact particularly disadvantaged. First, in terms of data analysis, a more precise measure of disadvantage would be beneficial for future studies investigating the role of internships in reducing inequalities between students. Second, for the A2i scheme itself, this potentially creates a question of whether the scheme's eligibility criteria target the desired group of students sufficiently well.[34]

[34] It was deemed outside the scope of the study to define an alternative WP/disadvantage measure. Furthermore, because we have only had access to data on WP categories used by the University (as listed in Annex A), it would have been arbitrary to build a new measure using only some of them (and excluding others).

6. Conclusions

6.1. Recommendations for the scheme

This evaluation highlights several ways in which the A2i team could consider adapting the scheme in future. Here, we group these into three categories:

- **Awareness:** Currently we infer from the process evaluation that not all eligible students who might benefit from A2i know about the scheme. Although we recognise considerable efforts have been made to promote the scheme, additional opportunities to do so should be taken. In particular, it seems that some students hear about the scheme through wider careers and academic staff, so raising awareness among these staff members might help to increase awareness and, therefore, uptake.
- **Applications:** Some interns said the application process could be enhanced. One way to do this might be through a dedicated application portal, although we recognise that this would carry resource implications for the A2i team. An easier, short-term adaptation could be to grant 'early approval' or 'agreements in principle' for successful awards, so that students and employers can proceed quickly and confidently in setting internships up. Students would also benefit from clearer signposting to existing application support, including template letters and emails for approaching prospective host employers.
- **Ongoing support:** Although interns are broadly happy with the support they receive from the A2i team (and it should be noted that A2i is primarily about the provision of funds, rather than the provision of other types of support), there may be some 'easy wins' for the A2i team in the form of clearer signposting on the A2i website of support available to students. This would cover, a), support specifically for interns relating to A2i and, b), wider careers support and guidance.
- **Eligibility criteria:** As explained in the discussion section, above, the current WP definition (i.e. the scheme's eligibility criteria) encompasses a substantial proportion of the student population (nearly 60% of students in the dataset used in this evaluation) and is therefore likely to include students who are not in fact disadvantaged. The A2i team could consider adjusting the eligibility criteria to improve the targeting of disadvantaged students.

6.2. Recommendations for future evaluations

6.2.1. Survey response rates

Increasing the number of survey respondents, perhaps by making survey completion a mandatory condition on which funding is provided to students and employers, would help improve the quality of insights generated about the programme.

6.2.2. Strengthening Contribution Analysis

Contribution Analysis could in future be strengthened further by incorporating interviews with employers. These were not included in this study because of concerns about over-burdening employers. Specifically, we believe it would be useful to ask employers for more information about whether and how they would offer internships without access to A2i funding (as well as about their experience of working with the interns and the benefits interns bring for their organisations).

Future Contribution Analysis should also consider the extent to which other factors (such as other employability programmes at the University) have contributed to observed outcomes. Surveys and interviews could explore this.

6.2.3. Exploiting changes in the Widening Participation definition

In this pilot evaluation, the question of additionality was explored using data from surveys and interviews. To reduce reliance on self-reported data and, consequently, increase the robustness and validity of findings, future evaluations could incorporate quantitative analyses of secondary data assessing the extent to which the internships would have happened in the absence of A2i.

One option would be to exploit changes in WP definitions (i.e. eligibility criteria for the scheme) to compare the incidence of internships before and after the change in eligibility for a particular WP group. A review of A2i scheme documentation showed there have been small changes to the definition of Widening Participation in recent years. For example, students with refugee status, those estranged from family support or the care experienced have only been included in the WP definition since the 2019-20 academic year (i.e., they were not eligible for the scheme prior to 2019-20). Similarly, Black, Asian and Minority Ethnic (BAME) students without any other WP characteristics stopped being eligible in the 2019-20 academic year. If the incidence of internships increases among students belonging to a particular group once they become eligible for the scheme (or conversely, if the incidence decreases once a group is no longer eligible for the scheme), this would provide some evidence for the scheme's additionality.

In terms of data requirements, the analysis would need to be based on Careers Registration Survey data (on work experience) combined with data on WP characteristics from internal University records – for all students belonging to the relevant WP groups (rather than A2i participants only). The analysis would then involve a comparison of the proportion of students undertaking (any) internships in a given group before and after that group's change in eligibility for the scheme, including statistical tests to establish whether the difference is statistically significant.

The feasibility of this type of analysis will depend on the availability of data – as the WP groups in question would need to consist of students with relevant WP markers but without any other WP characteristics, sample sizes might not be large enough to conduct the analysis (given the likely crossover between WP characteristics among disadvantaged students). Moreover, any future analysis will need to consider the impact of the Covid-19 pandemic on students' ability to secure internships.

6.2.4. Internships and graduate outcomes

One way to establish a causal link between internships and graduate outcomes would be a randomised controlled trial (RCT). RCTs are one of the most robust causal impact evaluation methodologies and would address many of the limitations around selection into the treatment group which are discussed in this report. Running an RCT would mean, rather than all eligible students getting access to A2i, a randomly chosen sample is given a spot and becomes the treatment group. Those who are not chosen become the control group. RCTs are not always feasible, and selectively providing funding to some eligible students on a 'lottery basis' would require careful ethical consideration and review. However, the interventions like A2i require financial and non-financial input from HE providers, which means it is not always possible to offer them to all eligible students. Where this is the case, leveraging oversubscription to identify a control group of people who can't take part because of capacity constraints can offer a neat solution to running an RCT. However, it is also important to note that, even where schemes are not oversubscribed, if there is no robust causal evidence of impact, there can be a clear ethical imperative to evaluate the intervention via strong evaluation methods, such as RCTs, to ensure that it is impactful and cost effective compared to other alternative approaches.

Future evaluations could also incorporate quasi-experimental approaches to increase the rigour of the analysis and the strength of the findings. One possibility would be to conduct the analysis using a matched comparison group. Propensity score matching (PSM) could be applied to overcome at least some selection biases (by constructing a counterfactual control group which matches the treatment group on observable characteristics). Alternatively to matching, researchers may also consider using the

estimated propensity scores to reduce self-selection bias from confounding variables with stratification, covariate adjustment, or other propensity score methods. However, the ability of propensity score-based methods to account for any self-selection bias depends on the extent to which different possible sources of bias have been identified and measured in the data. As we expect students' motivation to be an important driver of self-selection, this would require finding reliable proxies for motivation/ambition, possibly including students' class attendance or grades throughout their time at the University.

In addition, it could be useful to explore whether there is a link between the intensity of treatment (e.g., the number of internships undertaken during undergraduate study) and graduate outcomes. For example, the analysis could include additional comparisons between high- and low-intensity groups.

6.2.5. Data availability

During this project, we encountered several challenges in terms of accessing and combining data. One key challenge, which resulted in our need to conduct the regression analysis 'remotely', was our ability to access the full datasets required to construct treatment and comparison groups. It is worth acknowledging that while this may not present an immediate challenge to the A2i team in terms of evaluations conducted internally, it would be worth considering how evaluation project timelines and ethical approval should account for this if the University collaborates with external evaluation partners in future.

SQW also observed that relevant data sources exist in different forms across the University. We acknowledge that a key staff member with knowledge of the University's data recently left the A2i team. However, the A2i team should now consider whether (and how) it might begin to make the process of combining data from different sources more streamlined.

Annex A: A2i's eligibility criteria

To be eligible for the A2i scheme, a student must:

1. Be a Home/EU fee paying, undergraduate student

2. Plus, at least one of the following applies:

- Bursary recipient[i]
- Estranged from family support and in receipt of a standalone pledge bursary
- Mature student (over 21 on point of entry to university)
- Disability[ii]
- Care leaver[iii] or care experienced[iv]
- Carer
- Refugee status
- Distance or part-time student
- First Generation at University (both parents have not attended university)[v]
- Fair Access programme before coming to university (Realising opportunities, Pathways to Law, Exeter Progression or Exeter Senior Scholars)
- Home in a 'Low Participation Neighbourhood'[vi] (defined by home postcode before coming to university)
- White Male and home in a 'Low Participation Neighbourhood'[vi] (defined by home postcode before coming to university)
- State School/College in a 'Low Participation Neighbourhood'[vi] (last school/college before coming to university)
- Black, Asian and minority ethnic students who attended a State School/College in a 'Low Participation Neighbourhood'[vi] (last school/college before coming to university).

Further Definitions:

[i] Bursary: An 'Access to Exeter' bursary from the University of Exeter (household income under £25k) or a bursary from the Student Loans Company (household income under £42k).

[ii] Disability: A disability is normally defined as a physical or mental impairment that has a substantial impact on normal daily activity and has lasted or is likely to last for 12 months or more.

[iii] Care Leaver: Young people (up to the age of 25) who have been looked after by the local authority for more than 13 weeks since they were 14, including some time at age 16 or 17.

[iv] Care Experienced: Anyone who has been or is currently in care or from a looked after background at any stage of their life, no matter how short. This care may have been provided in one of many different settings, such as in residential care, foster care, kinship care or looked after at home with a supervision requirement.

[v] First Generation at University: Neither of the parent(s) or legal guardian(s) attended a Higher Education Institution, i.e. University, Polytechnic or College, to undertake a full-time higher education qualification, i.e. a degree, diploma or certificate of higher education.

[vi] Low Participation Neighbourhood: A neighbourhood where a low percentage of young people progress to higher education. Students can check to see if their home and/or school postcode was in a 'Low Participation Neighbourhood' by visiting the A2i website and entering the postcode into the WP Criteria box. If their postcode results show either of the following, then their postcode is eligible: POLAR4 – Quintile 1 or 2; POLAR3 – Quintile 1 or 2.

Annex B: Theory of Change

Situation

1) The Office for Students has identified persistent gaps in graduate outcomes between groups at a national level, with students from geographical areas of low participation, with disability and from some ethnic backgrounds achieving worse graduate outcomes (on average) than their peers.

2) The University of Exeter is successfully implementing a strategy to diversify its student intake. The student body at the university is more diverse than it has ever been, and this requires the university to adapt to the diverse needs of these students.

Aims

1) Enhancing the employability prospects of WP students and improving graduate outcomes for these students (as defined in the Graduate Outcomes Survey)

2) Retaining talent in the local economy

Inputs	Activities	Outputs	Outcomes	Impact
Process			**Impact**	
Annual budget **Dedicated team – ~1.5 FTE** **Wider package of support from the university careers team** **Inputs from employers – time, money, induction, training** **Students' time** **Marketing resources – flyers, app**	**Onboarding process – setting up internship agreements** **Funding internships – 4-week/140 hours** **Ongoing support for students from Careers and Employment Team** **Maintenance of employer log** **Monitoring and evaluation**	**Number of students in scheme (by subgroup)** **Number of employers offering internships (by size, sector, geography)** **Number of complete/incomplete internships** **Number of repeat employers** **Students/employers satisfaction scores**	*For students:* **Improved career-relevant personal skills such as communication and teamwork** **Improved role- or sector-specific knowledge and skills** **Improved confidence and ability to pursue relevant and aspirational career pathways** **Improved knowledge of relevant and aspirational career pathways** *For the university:* **Equality in graduate outcomes, closing gaps between WP students and peers** *For employers:* **Improved business performance outcomes** **Better management of internship placements** **Improving recruitment pool**	**Positive employment or good graduate outcomes** **Employers gain better access to current students to support talent pipeline** **Longer term changes in the local economy**

Rationale & Assumptions

Internship placements fill gaps WP students face in securing employment;

Funding is an enabler to encourage employers to take on interns;

Students from WP backgrounds require additional support to arrange internship placements;

Internship placements provide a meaningful and positive employment experience;

Doing an internship is beneficial for students from disadvantaged backgrounds;

A good internship experience followed by good academic performance is correlated with good employment prospects.

Risks & Limitations

Turnover within a small team that administrate the A2i scheme;

Fluctuation in funding and rise of cost of living can limit the number of students that can be supported each year;

Students may not be aware of the scheme;

Students may not have the social capital and skills to arrange an internship;

There are many other factors that can influence the outcome for the students, it is therefore challenging to attribute any change observed to the scheme.

Annex C: Research questions

Table A1: Impact evaluation research questions

Impact evaluation	
Increased number of internships	1. What proportion of internships would have taken place without the scheme?
	2. For those internships which would have happened without the scheme, would they have been of the same length, in the same sector or with the same employer as those funded through A2i?
	3. Is additionality greater for students from different WP subgroups?
	4. Is additionality different for different types of employers and sectors?
Improved career-relevant personal skills	5. How, if at all, have participants' career-relevant personal skills improved following the internships?
	6. To what extent does this vary between WP subgroups?
Improved role- or sector-specific knowledge	7. How, if at all, has participants' role- or sector-specific knowledge improved following the internships?
	8. To what extent does this vary between WP subgroups?
Improved confidence to pursue relevant career pathways	9. How, if at all, has participants' confidence in pursuing relevant career pathways improved following the internships?
	10. To what extent does this vary between WP subgroups?
	11. Is confidence higher for those who undertook an internship (in this scheme or otherwise) relative to those who did not undertake any internships?
Improved ability to pursue relevant career pathways	12. Are participants' able to pursue relevant and career pathways following the internships?
	13. To what extent does this vary between WP subgroups?

Improved knowledge of relevant career pathways	14. How, if at all, has participants' knowledge of relevant and aspirational career pathways improved following the internships?
	15. To what extent does this vary between WP subgroups?
Positive employment or good graduate outcomes	16. How, if at all, do internship participants (in this scheme or otherwise) achieve better graduate outcomes (graduate level employment or postgraduate study) than those who did not undertake any internships ?
Equality in graduate outcomes, closing gaps between WP students and peers	17. Is the gap in graduate outcomes between WP and non-WP groups smaller for those who undertook an internship (in this scheme or otherwise) relative to those who did not undertake any internships?
Improved business performance outcomes	18. What benefits did the internships have for participating businesses?
Better management of internship placements by businesses	19. How, if at all, has management of internship placements changed at organisations participating in A2i?
Improved recruitment pool for businesses	20. How, if at all, has businesses' recruitment pool improved through participation in the scheme?

Table A2: Process evaluation research questions

Process evaluation	
Application process	1. What does the application process cover?
	2. How easy was it to apply for the scheme?
	3. How could it be improved?
Non-financial support	4. How well are students supported in arranging an internship (by the A2i team)?
	5. How well are students supported during their internship (by the A2i team)?
	6. How well are students supported after their internship (by the A2i team)?
	7. Does the nature of support differ by student characteristics? If so, how?
	8. How well are employers supported by the A2i team before, during and after the internship?
	9. What could be improved?
Awareness raising and marketing	10. How do students hear about A2i?
	11. How effective is the A2i team in raising awareness of the scheme among WP students?
	12. What works well about the scheme's marketing?
	13. What could be improved?
Monitoring	14. How is A2i's quality monitored?
	15. How effective are the monitoring procedures?
	16. What could be improved?

Annex D: Tables summarising research questions and methodology

Table A3: Impact evaluation research questions and methodology

Research question	Interviews with A2i delivery team	Interviews with UoE careers advisors and managerial staff	Intern interviews	Intern survey	Employer survey	Careers Registration Survey	Careers Destination Survey	Graduate Outcomes Survey
Increased number of internships								
1. What proportion of internships would have taken place without the scheme?	■	■	■	■	■	■		
2. For those internships which would have happened without the scheme, would they have been of the same length, in the same sector or with the same employer as those funded through A2i?	■	■	■	■	■			
3. Is additionality greater for different WP subgroups?	■	■		■				
4. Is additionality different for different types of employers?	■	■			■			
Improved career-relevant personal skills								

Research question	Interviews with A2i delivery team	Interviews with UoE careers advisors and managerial staff	Intern interviews	Intern survey	Employer survey	Careers Registration Survey	Careers Destination Survey	Graduate Outcomes Survey
5. How, if at all, have participants' career-relevant personal skills improved following the internships?								
6. To what extent does this between WP subgroups?								
Improved role- or sector-specific knowledge								
7. How, if at all, have participants' role- or sector-specific knowledge improved following the internships?								
8. To what extent does this vary between WP subgroups?								
Improved confidence to pursue relevant career pathways								
9. How, if at all, has participants' confidence in pursuing relevant and aspirational career pathways improved following the internships?								

Research question	Interviews with A2i delivery team	Interviews with UoE careers advisors and managerial staff	Intern interviews	Intern survey	Employer survey	Careers Registration Survey	Careers Destination Survey	Graduate Outcomes Survey
10. To what extent does this vary between WP subgroups?								
11. Is confidence higher for those who undertook an internship (in this scheme or otherwise) relative to those who did not undertake any internships?								
Improved ability to pursue relevant career pathways								
12. Are participants' able to pursue relevant and aspirational career pathways following the internships?								
13. To what extent does this vary between WP subgroups?								
Improved knowledge of relevant career pathways								
14. How, if at all, has participants' knowledge of relevant and aspirational career								

Research question	Interviews with A2i delivery team	Interviews with UoE careers advisors and managerial staff	Intern interviews	Intern survey	Employer survey	Careers Registration Survey	Careers Destination Survey	Graduate Outcomes Survey
pathways improved following the internships?								
15. To what extent does this vary between WP subgroups?								
Positive employment or good graduate outcomes								
16. How, if at all, do internship participants (in this scheme or otherwise) achieve better graduate outcomes (graduate level employment or postgraduate study) than those who did not undertake any internships ?								
Equality in graduate outcomes, closing gaps between WP students and peers								
17. Is the gap in graduate outcomes between WP and non-WP groups smaller for those who undertook an internship (in this scheme or otherwise) relative to those who								

Research question	Interviews with A2i delivery team	Interviews with UoE careers advisors and managerial staff	Intern interviews	Intern survey	Employer survey	Careers Registration Survey	Careers Destination Survey	Graduate Outcomes Survey
did not undertake any internships?								
Improved business performance outcomes								
18. What benefits did the internships have for participating businesses?								
Better management of internship placements by businesses								
19. How, if at all, has management of internship placements changed at organisations participating in A2i?								
Improved recruitment pool for businesses								
20. How, if at all, has businesses' recruitment pool improved through participation in the scheme?								

Table A4: Process evaluation research questions and methodology

Research question	Interview with A2i delivery team	Interviews with UoE careers advisors and managerial staff	Intern interviews	Intern survey	Employer survey	Careers Registration Survey	Careers Destination Survey	Graduate Outcomes Survey
Application process								
1. What does the application process cover?	■	■						
2. How well is the application process delivered?	■	■	■	■				
3. How could it be improved?	■	■	■	■				
Non-financial support								
4. How well are students supported in arranging an internship (by the Careers and Employment team)?	■	■	■	■				
5. How well are students supported during their internship (by the Careers and Employment team and employers)?	■	■	■	■				
6. How well are students supported after their internship (by the Careers and Employment team)?	■	■	■					

Research question	Interview with A2i delivery team	Interviews with UoE careers advisors and managerial staff	Intern interviews	Intern survey	Employer survey	Careers Registration Survey	Careers Destination Survey	Graduate Outcomes Survey
7. Does the nature of support differ by student characteristics?	■	■		■				
8. How well are employers supported by the Careers and Employment team?	■				■			
9. What could be improved?	■	■	■	■	■			
Awareness raising and marketing								
10. How do students hear about A2i?	■	■	■	■				
11. How effective is the A2i team in raising awareness of the scheme among WP students?	■	■	■	■				
12. What works well about the scheme's marketing?	■	■	■					
13. What could be improved?	■	■	■					
Monitoring								
14. How is A2i's quality monitored?	■							

Research question	Interview with A2i delivery team	Interviews with UoE careers advisors and managerial staff	Intern interviews	Intern survey	Employer survey	Careers Registration Survey	Careers Destination Survey	Graduate Outcomes Survey
15. How effective are the monitoring procedures?								
16. What could be improved?								

Annex E: Description of data used in the regression analysis

Table A5: Demographic profile of the sample (n=55,103)

Characteristic	Frequency[35]	Percent[36]
Sex		
Female	29,717	53.9%
Male	24,778	45.0%
Other	608	1.1%
Ethnicity		
White	47,201	88.2%
Asian	2,177	4.1%
Black	925	1.7%
Mixed	2,693	5.0%
Other	493	0.9%
Age band (on point of entry to university)		
Under 21	52,045	94.5%
21-25	2,066	3.7%
26-30	445	0.8%

[35] Frequencies incorporate all non-missing data.
[36] Percentages are calculated based on non-missing data.

31-40	341	0.6%
41-50	143	0.3%
51+	63	0.1%
Disability group		
No disability	42,381	76.9%
Disability	12,722	23.1%
First Generation at University status		
No	38,587	73.8%
Yes	13,671	26.2%
IMD		
Q1 (most deprived)	2,290	4.5%
Q2	5,459	10.7%
Q3	10,186	19.9%
Q4	13,333	26.0%
Q5 (least deprived)	19,954	39.0%
POLAR 4		
Q1 (lowest HE participation)	3,146	6.2%
Q2	5,727	11.4%

Q3	7,516	14.9%
Q4	10,593	21.0%
Q5 (highest HE participation)	23,452	46.5%
Has been in care (care leaver or care experienced)		
No	42,895	99.4%
Yes	257	0.6%
Estranged from family support		
No	43,579	98.9%
Yes	499	1.1%
Refugee status		
No	55,018	99.8%
Yes	85	0.2%
Recipient of Access to Exeter bursary		
No	46,008	83.5%
Yes	9,095	16.5%
Fair Access programme participant		
No	54,812	99.5%
Yes	291	0.5%

Commuter status (distance student)		
No	27,202	92.0%
Yes	2,380	8.0%
School type (before coming to university)		
State	32,829	68.4%
Independent	15,175	31.6%
Mode of study		
Full-time	54,974	99.8%
Part-time	112	0.2%
Other	17	0.0%
College		
Faculty of Environment, Science and Economy	19,227	34.9%
Faculty of Health and Life Sciences	11,848	21.5%
Faculty of Humanities, Arts and Social Sciences	24,028	43.6%
Degree classification		
First	9,417	32.8%
2:1	14,389	50.0%

2:2 or 3	1,942	6.8%
Pass	3,003	10.4%

Table A6: Frequencies[37] of outcome variables cross-tabulated by treatment and comparison conditions

Outcome	*Treatment group:* **any internship**	*Treatment group:* **A2i**	*Comparison group:* **no internship**	*Comparison group:* **no work experience**	*Comparison group:* **other internship (non-A2i)**
Hypothesis B					
Feeling well prepared for employment at graduation or at the start of the final academic year	73.6%	71.1%	50.7%	28.8%	73.7%
Activity six months after graduation matches plans for after graduation	41.7%	50.6%	34.6%	26.8%	41.4%
Activity 15 months after graduation matches plans for after graduation	75.6%	79.5%	69.0%	56.2%	75.4%
Hypothesis C					
Being in employment or further study (six months after graduation)	55.2%	72.0%	51.5%	42.0%	54.5%

[37] Percentages are calculated based on non-missing data.

Having 'graduate level' responsibilities in one's job (for those in employment six months after graduation)	75.5%	69.1%	55.2%	57.1%	75.8%
Being in employment or further study (15 months after graduation)	82.0%	86.5%	74.1%	63.2%	81.8%
Achieving a 'positive' outcome as defined by the Guardian (15 months after graduation)	88.3%	87.8%	77.7%	62.4%	88.3%
Graduate agrees they have utilised the skills they have learnt during their studies in their current activity (15 months after graduation)	61.7%	86.7%	52.4%	25.6%	60.8%
Graduate agrees their current activity is meaningful (15 months after graduation)	83.2%	95.6%	79.8%	58.1%	82.7%
Graduate agrees their current activity fits in with their plans for the future (15 months after graduation)	77.8%	91.1%	67.9%	45.5%	77.3%

Annex F: Results of regressions with an interaction term between internship participation and WP status

Table A7: Differential effect of undertaking an internship for WP vs non-WP groups – regression analysis results for the CDS outcome of being in employment or further study six months after graduation

Explanatory variable	*CDS outcome:* **being in employment or further study (six months after graduation)**	
	Treatment: any internship experience **Comparison:** no internship experience	**Treatment:** any internship experience **Comparison:** no work experience
Internship participation	No internship group probability: 0.559 Marginal effect for internship participation: 0.061 n=6,792, +	Not statistically significant n=3,994
WP status	Not statistically significant n=6,792	Not statistically significant n=3,994
Internship participation and WP status (interaction term)	No internship and non-WP group probability: 0.550 Marginal effect for internship participation: 0.034 Marginal effect for WP status: 0.016 Additional marginal effect for interaction of both internship participation and WP status: 0.047 n=6,792, *	Not statistically significant n=3,994

Source: SQW

Note: Significance levels: +0.10, 0.05, 0.01**. Results are only reported if the difference between the treatment and comparison group is statistically significant. If that is the case, green (positive) and orange (negative) colours refer to the direction of the effect, respectively, and marginal effects are reported for ease of interpretation. The significance levels relate to the difference between the treatment and comparison group estimates.*

Table A8: Differential effect of undertaking an internship for WP vs non-WP groups – regression analysis results for the GOS outcome of being in employment or further study 15 months after graduation

Explanatory variable	*GOS outcome:* **being in employment or further study (15 months after graduation)**	
	Treatment: any internship experience **Comparison:** no internship experience	**Treatment:** any internship experience **Comparison:** no work experience
Internship participation	No internship group probability: 0.776 Marginal effect for internship participation: 0.058 n=2,072, +	Not statistically significant n=1,340
WP status	Not statistically significant n=2,072	Not statistically significant n=1,340
Internship participation and WP status (interaction term)	Not statistically significant n=2,072	Not statistically significant n=1,340

Source: SQW

Note: Significance levels: +0.10, 0.05, 0.01**. Results are only reported if the difference between the treatment and comparison group is statistically significant. If that is the case, green (positive) and orange (negative) colours refer to the direction of the effect, respectively, and marginal effects are reported for ease of interpretation. The significance levels relate to the difference between the treatment and comparison group estimates.*

Annex G: Bibliography

Befani, B. and Mayne, J. (2014) *Process Tracing and Contribution Analysis: A Combined Approach to Generative Causal Inference for Impact Evaluation*, Institute of Development Studies. Available at: https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/7348/IDSB_45_6_10.1111-1759-5436.12110.pdf?sequence=1&isAllowed=y

Creswell and Plano Clark (2007) *Designing and conducting mixed methods research*, CA: Sage.

Kerrigan, M., Manktelow, A. & Simmons, E., (2018) Sandwich placements: negating the socio-economic effect on graduate prospects. *Widening Participation and Lifelong Learning*, 20(4), pp. 81-107.

Molina-Azorin, J. (2016) "Mixed methods research: An opportunity to improve our studies and our research skills", *European Journal of Management and Business Economics*, 25(20), pp 37-38.

Mountford-Zimdars, A., Sabri, D., Moore, J., Sanders, J., Jones, S. and Higham, L., (2015). Causes of differences in student outcomes.

Office for Students (2023) Data dashboard. Available at: https://www.officeforstudents.org.uk/data-and-analysis/access-and-participation-data-dashboard/data-dashboard/

TASO (2022) 'What works to reduce equality gaps in employment and employability?'. Available at: https://s33320.pcdn.co/wp-content/uploads/TASO_Main-Report_What-works-to-reduce-equality-gaps-in-employment-and-employability.pdf

TASO (2023) Contribution Analysis. Available at: https://taso.org.uk/evidence/evaluation-guidance-resources/impact-evaluation-with-small-cohorts/getting-started-with-a-small-n-evaluation/contribution-analysis/

University of Exeter (2021) Access to Internships (A2i) Evaluation 2020-2021. Internal document shared with SQW.

Wright, E. and Mulvey, B. (2021) 'Internships and the graduate labour market: How upper middle class students 'get ahead'., *British Journal of Sociology of Education,* 42(3), pp. 329-356.

Yenipinar et al., (2019) Determining Sample Size in Logistic Regression with G-Power. Available at: 615531 (dergipark.org.tr)