

# TASO

Transforming Access  
and Student Outcomes  
in Higher Education



**Summary report:**

## What works to reduce equality gaps in employment and employability?

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## Acknowledgements

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Commissioned by The Centre for Transforming Access and Student Outcomes in Higher Education (TASO)

## OVERVIEW

This summary report gives an outline of the methods and findings of the [main report](#), provided in a separate publication, which explores the existing evidence of what works to reduce employment and employability inequalities, and where gaps lie in the existing research. The report contains evidence from three sources:

- **Data analysis** to understand the context. What are the labour market outcomes for graduates from disadvantaged backgrounds and how do they compare to those for non-disadvantaged graduates?
- **Literature review** to gather evidence of what works. Which programmes does the technical and academic literature suggest are effective in improving labour market outcomes for disadvantaged graduates?
- **Sector consultation** to explore insights from practice. What do practitioners and experts working in the field of graduate careers and employment report about their experiences of delivering and evaluating programmes for students from disadvantaged backgrounds?

It concludes with recommendations for higher education providers (HEPs) and researchers.

## CONTEXT AND DEFINITIONS

Understanding how higher education (HE) can provide all students with employability skills and improve their employment outcomes is a clear priority for the sector and a key part of TASO's overall mission. Now more than ever, it is essential to understand which practices are effective in narrowing employment gaps for disadvantaged and underrepresented students. Indeed, the graduate labour market is undergoing significant and rapid change as a result of the COVID-19 pandemic. However, it appears that the existing evidence base is relatively weak.

In our report, we categorise 'disadvantaged' young people based on their rates of participation in HE and their outcomes in the graduate labour market (Office for Students, 2020). Broadly, this categorisation includes students and graduates who are from:

- Families of low socioeconomic status
- Female gender
- Black, Asian and minority ethnic (BAME)
- Disability groups
- Low participation areas
- Among the first in their family to attend HE
- Overseas or with unsettled migration status
- Carers
- Care leavers
- Mature
- Lesbian, gay, bisexual, transgender or queer (LGBTQ+).

We recognise that disadvantage is complex and is not deterministic. A graduate who falls into one of these groups may, for various reasons, experience better labour market outcomes than a counterpart from a relatively advantaged group. However, our research focuses on average differences between groups of graduates as a means of identifying inequalities and tracking disadvantages.

In the report, the term 'employability' refers to an individual's ability to secure and prosper in employment. A multitude of factors may influence an individual's employability (e.g. personality traits, social networks). However, we broadly focus on the relationship between membership of a disadvantaged group and labour market outcomes, as well as those activities undertaken by HE providers to improve these outcomes.

The report focuses on programmes that directly and primarily aim to improve careers and employability outcomes, although HEPs also offer much that indirectly improves the careers and employability outcomes of their students (e.g. sports, volunteering opportunities, access to facilities).

## DATA ANALYSIS: KEY FINDINGS

- Importantly, the dataset used does not include information on part-time work or unemployment. These potentially key factors in variation in earnings remain unaccounted for, which may disproportionately skew the earnings gap for some demographics.
  - Gaps in graduate earnings emerge immediately after graduation and increase further over time. One year after graduation, there is an £11,300 gap between the lower and upper quartile of graduate earnings. Ten years after graduating, this gap is equal to £24,100.
  - Three years after graduation, significant differences can be seen according to the subject studied and the university attended. There is a £20,000 gap between the 10 HEPs with the highest-earning graduates and the 10 with the lowest.
  - There are also significant earnings gaps after three years between graduates from different ethnic groups, with a gap of around £4,800 between the group with the highest earnings (Indian graduates) and the group with the lowest earnings (Pakistani graduates). There is a £4,500 gap in earnings between graduates from London and those from the North East.
  - Many of these gaps continue to widen in the 10 years following graduation. The gap between the highest- and lowest-earning ethnic groups increases from 16% one year after graduation to 24% nine years later. Similarly, the earning gap between graduates from London, the South East, the East of England and the rest of England grows from 10% to 16% over the same period.
  - The trajectory of the gender earnings gap is particularly striking. In the year following graduation, male graduates earn 8% more than their female peers, but in the following nine years this gap grows to 32%.
  - Existing research highlights the importance of the choice of course (subject and institution) in driving some of the earnings differences between groups. Differences in subject choices appear to be linked to gaps by ethnicity, while provider choice is linked to the gap between graduates from more and less disadvantaged backgrounds. Lower average prior attainment also appears to be a key driver of lower average earnings of graduates from disadvantaged backgrounds.
- Initially, subject choice contributes to more of the initial difference in earnings between male and female graduates. However, as graduates age, a larger proportion of this gap can be explained by other factors such as differences in parenting responsibilities, hours worked, the propensity to ask for pay rises or apply for promotions, and labour market discrimination.

## EVIDENCE REVIEW: KEY FINDINGS

- We conducted a search using the Education Resources Information Center (ERIC) to identify relevant literature on effective programmes run by HEPs to improve the career and employment outcomes of graduates.
- 35 papers were selected as suitable for our literature review, including:
  - 23 empirical studies
  - 10 narrative studies
  - 2 causal studies
- Nearly all the studies provide 'emerging evidence', with a minority providing 'medium strength' evidence. Just under one-third of the studies specified had sufficient sample sizes of students from disadvantaged groups.

### Work experience:

- 'Work experience' covers a wide range of interventions that provide students with exposure to industry and employment, including 'internships', 'sandwich courses' and part-time jobs.
- Work experience is the most well-evidenced programme, with six quantitative studies showing a strong association with better graduate outcomes.
- Multiple smaller work-experience opportunities distributed throughout an HE course appear to be more beneficial than larger single blocks of experience. The strategic placement of work-experience participants with employers seeking long-term hires can also enable students to find employment at a placement organisation.
- The signalling power of work experience in CVs and applications means that graduates need to be supported to clearly communicate the work experience they complete.

## Information, advice and guidance (IAG):

- IAG is the provision of resources to students to help them understand their career options and make effective decisions around them. It can take many forms, including career counselling, talks, seminars or workshops related to employment and employability. IAG may also be offered through relevant documents, websites and online tools.
- Multiple papers support the efficiency of IAG. Importantly, a meta-analysis shows that a career counselling approach to IAG is strongly associated with students' knowledge of and readiness for navigating the job market. One quantitative study suggests that the use of IAG to find job opportunities may be positively associated with earnings and job satisfaction five years after graduation, but does not control for individual differences in motivation. Finally, a causal study shows that engagement in IAG improved the progression of disadvantaged students into postgraduate education by 22%.

## Technology-based interventions:

- Our review identified four kinds of innovative technology-based solutions that HEPs may offer to improve career and employment outcomes. Most of these are early in their life cycle, but the studies offer proofs of concept that may be pursued further.
  - Work simulations create virtual environments that allow students to acquire the skills they would gain through work experience in a more controlled and directable environment and at scale.
  - Commercially available video games can improve students' employability skills, such as communication, teamwork and problem-solving skills.
  - E-Portfolios may help mature graduates 'show' rather than 'tell' their achievements and experiences to employers.
  - Automated curriculum vitae (CV) analysers can be developed and deployed for students in specific subjects to allow quality feedback on CVs to be given at a greater scale than if using academic staff for assessment.

## Teaching employability skills:

- 'Employability Skills' are a range of competencies deemed necessary for success in securing and retaining employment. While the evidence indicates that these skills can be honed through HE, there is limited evidence of the link between these skills and improved career outcomes.

- A quantitative study finds that offering sports and volunteering opportunities can help HE students develop skills that make them employable, such as networking, information gathering, communication skills and self-motivation.
- Two quasi-experimental studies provide evidence that the explicit teaching of these skills is not effective in improving the career and employment outcomes of students. Some HEPs conduct a content analysis of job adverts or student surveys to identify the skills that will best support their students in the current job market. They then build their instruction around these skills. Subject-specific employability skills programmes can be effective in improving employment outcomes, although high-quality evidence on their impact remains lacking.
- Emerging evidence suggests that interventions delivered by HEPs can modify psychological competencies that are associated with positive careers and employment outcomes. For instance:
  - 'Career adaptability' may be improved to make graduates better at seeking and moving between jobs.
  - 'Psychological capital', defined as the ability to know and play to one's strengths and weaknesses, is associated with employability skills such as teamwork, communication and adaptability.

## General interventions targeted at disadvantaged groups and delivery considerations:

- Stakeholder consultations with students with autism reveal their preference for work experience to prepare for the working world, but also their concerns that employers may be hesitant to take them on due to their disability. Students with autism report wanting their education providers to build close partnerships with employers and to act as champions in communicating their skills and value to employers, facilitating offers of work experience. A combination of work experience with an employer and job simulation appears to be effective in improving their employment prospects, according to a systematic review.
- There is little evidence available for students with physical disabilities, although one study provides suggestive evidence that disabled students can also be supported into work through job simulation training. Being partnered with mentors with similar disabilities who are already in work can improve students' sense of self-efficacy and motivation in seeking employment after graduation.



## SECTOR CONSULTATION: KEY FINDINGS

- We consulted 27 practitioners and experts working on careers and employability programmes. We summarised the survey findings with descriptive statistics and conducted a thematic analysis of the focus group findings.
- The majority of respondents were from post-1992/metropolitan universities or Russell Group universities. Our sample had low representation from the FE sector.
- The disadvantaged groups most likely to be targeted for career interventions are learners who are BAME, care leavers, disabled or from a low socioeconomic-status background. Targeting is often conducted in conjunction with Widening Participation (WP) teams at a provider level, while some providers use a data-driven approach to identify groups in their student population to target.
- Several education providers express an interest in or a commitment to offering universal provision that is accessible to disadvantaged students, as opposed to targeted programming. This was due to concerns about ensuring equal opportunities, avoiding stigma and the low uptake for targeted programmes. Some providers already deliver mandatory careers programmes for all students or fold provision into the wider academic curriculum.
- Work experience, employability skills workshops and IAG are the most likely interventions to be targeted at disadvantaged groups. However, providers indicate that less than half the number of students eligible to participate in targeted interventions do so. This is in line with uptake for careers programmes among the wider student population.
- Internships and work experience are believed to be particularly impactful interventions.
- Providers draw on a wide range of information sources (academic and technical literature, students' voices) to decide which programmes to offer. Of our survey respondents, 82% indicated that their selection of programmes was based on the evaluation of previous interventions. Providers are confident in their knowledge of 'what works' to improve graduate employability, but also recognise that many of the factors that affect these outcomes are beyond their control.
- Providers overwhelmingly evaluate what they offer using student feedback and employment outcome data (typically, outcomes survey data captured around 15 months after graduation as part of the HESA Graduate Outcomes Survey). They use case studies to a lesser extent.
- Data collection after students graduate is a major challenge, making it difficult to capture data on concrete employment outcomes that can be associated with participation in particular programmes.
- The Covid-19 pandemic has forced many providers to innovate and adapt their provision, with many adopting practices such as a remote provision that make their services more accessible to disadvantaged students. Practices that have long been considered ineffective, such as career fairs, have diminished in popularity.

## RECOMMENDATIONS

Overall, the evidence base is relatively weak in terms of causal evidence, particularly that which relates to improving employability outcomes for students from disadvantaged or underrepresented backgrounds. To improve this, we recommend that HE providers:

- Adopt a strategic approach to careers and employability provision that begins with a theory of change specifying desired employment outcomes for students and acknowledging that different groups may experience different barriers to achieving these outcomes. Theories of change should include both intermediate and longer-term behavioural outcomes, as well as subjective measures such as a sense of meaningfulness in work.
- Develop and evaluate employment and careers programmes (work experience, IAG, mock interviews and careers fairs) specifically targeted at reducing gaps in employment outcomes. Of particular focus for research should be graduates who are female, disabled, from certain ethnic backgrounds (Caribbean, White and Black Caribbean, Bangladeshi and Pakistani) or low participation areas. Closer relationships between WP and Diversity and Inclusion teams and their careers services could improve the identification and targeting of these programmes.
- Further explore the impact of sandwich courses and other types of work experience on labour market outcomes for disadvantaged and underrepresented students.
- Develop robust evidence of the impact of IAG provision that involves individuals from similar backgrounds to the students it targets and opportunities for interaction with teachers and lecturers who have spent time in industry. Involving disadvantaged and underrepresented students in the production process could help to ensure that the information provided is relevant to those groups.
- Develop and evaluate alumni or peer mentoring opportunities for disadvantaged and underrepresented students (including specific initiatives to support disabled students).
- Invest in trialling and evaluating innovative, technology-based approaches to careers and employability improvement.
- Design and evaluate the efficacy of approaches to support the uptake of and participation in career and employability services amongst students expected to benefit most from the support available.
- When universal provision is preferred, HEIs should seek to ensure that they gather data on the social background of participants, and assess whether such programmes tackle equality gaps.
- Run robust trials of different careers and employability programmes across multiple candidate providers to develop the 'what works' evidence base. This increases the rigour of investigation and allows large volumes of comparable data to be captured.
- Support collective learning across the HE sector on what works to reduce employability gaps and, crucially, share new and emerging evidence.

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**TASO** is an independent charity that aims to improve lives through evidence-based practice in higher education (HE). We support HE professionals through research, toolkits and evaluation guidance on what works best to eliminate equality gaps. We inform practitioners of the best available evidence and produce new evidence on the most effective approaches. TASO is an affiliate 'What Works' centre and is part of the UK Government's What Works Movement.