

What a difference a year makes: the impact of Covid 19 on graduate careers

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Executive Summary

What has been happening in the graduate labour market over the last decade, and how have graduates fared since the Covid-19 pandemic changed how we live and work? This report covers two major investigations of graduates 10-11 years after they had completed undergraduate degrees at UK higher education institutions. The Futuretrack longitudinal research has tracked full-time students who embarked on higher education in 2006, following them through their courses, as they gained their first degrees in 2009 and 2010, through their early careers and now, in 2019 and 2020, into mid-career and the extraordinary experience of the first year of the Covid-19 pandemic¹.

This report summarises the main findings from the reports of these last two stages: *Ten Years On: The Futuretrack Graduates* and *Covid -19 and graduate careers*: a previously unplanned stage of the research that proved essential when the pandemic hit as the research team analysed the 2019 findings. Revisiting a large sample of these 2009/10 graduates who had last been surveyed in 2011/12, in 2019 the research team at the University of Warwick surveyed respondents and interviewed 200 of them in detail about their career experiences. They were then re-contacted again between September 2020 and January 2021 to investigate their experiences of the pandemic restrictions and its economic impact on their work and careers.

These graduates had joined the labour market in the wake of the post-2008 recession. Periods of precarious employment had been part of the journey for many of them and many had experienced initial difficulty in obtaining the jobs they hoped for. Despite this, by late 2019 most reported high levels of satisfaction with their jobs and the way their careers were developing. Their experiences were diverse, ranging from very highly paid and successful employees in Finance, in Law and in Information & Communication Technologies (ICT), to considerably less well-paid but equally successful and well-integrated professionals in Healthcare, Education, Social Services, and in the Arts. A small minority remained dissatisfied with how things had turned out so far, but most had achieved unequivocally 'graduate' jobs.

- Of those in employment or self-employment at the time of the 2019 survey, 90 per cent were in managerial, professional or associate professional occupations;
- The majority, even those whose job-title suggested that they were likely to be in non-graduate employment, regarded themselves as being in appropriate employment for someone with their skills and qualifications (80 per cent rating their job 1-3 on a 7-point scale where 1= ideal and 7 = totally inappropriate).
- In all these aspects, subject of study was important. Those with vocational degrees and those who had studied STEM subjects were least likely to be in non-graduate jobs but were not necessarily among the highest paid or most satisfied with their career outcomes.
- A key variable was location and the availability of graduate opportunities where they lived, and sometimes choice of location reflected priorities other than career development.

¹ Full details of the methodology and findings relating to all six stages of the research can be accessed via www.warwick.ac.uk/futuretrack

Background was important, but higher education had provided career choices:

Most graduates from routine manual or intermediate backgrounds had achieved professional or managerial jobs and there was little evidence of downward social mobility among those from professional and managerial backgrounds. Access to careers guidance and support from parents and social networks were correlated with successful career outcomes and as their careers progressed, professional and social networks had become increasingly important, along with growing self-confidence and capacity to be proactive in pursuing opportunities. Where graduates *were* in 'non-graduate' jobs nine or ten years after completing their degrees, many had made career decisions based on other interests or values, like those working for charities or for 'quality of life' reasons.

The graduates reported diverse career values as well as diverse earning opportunities

Ten years on from graduating, they were mostly in their early 30s. When asked to rate the importance of long-term values to them in considering their careers, *the most important response was 'doing a job I enjoy'*, followed by 'developing my capabilities', 'the ethics of my employer', 'career progression' and, only in fifth place 'high financial reward'. They placed high importance on ethical values, with 87 per cent concerned about the ethics of their employer and 70 per cent seeing 'doing socially-useful work' as an important motivation. In both cases, higher proportions of females rated these variables as important than males and were less likely to rate high financial reward as important. Just as well, since one of the most significant findings from the research was the persistence and growth of the gender pay gap over their graduate careers so far.

The research reveals a persistent and increasing gender pay gap, despite equal opportunities legislation and organisational policies;

There was *wide diversity in the earnings of the graduates* depending on occupation, but on average women earned less than men with similar qualifications and as their careers had progressed, the gap between their earnings had widened. A comparison was made between the growth of male and female graduate earnings over the seven-year period from 2012 to 2019, contrasting these growth rates with those shown by an earlier cohort of graduates from 1995 to 2002. This comparison indicated that there has been *little or no progress in closing the gender gap in graduate earnings* over the 17 years separating these two studies.

The impact of the pandemic on the graduates:

In February 2020 the pandemic struck. Respondents were contacted again late in 2020, one year after the original survey and interviews to see what the impact had been. While unemployment has increased overall as many organisations found it necessary to reduce staff or ceased to operate since the pandemic, *the majority of these 2009/10 graduates, already well-established and experienced in their occupations and industry sectors, had mainly survived or been able to move to alternative jobs*. Those in traditionally freelance 'marketed services' in the entertainment, arts, tourism and hospitality sectors were particularly likely to have experienced furlough and loss of income and opportunities as a result of the Covid restrictions, but most of the Arts professionals, accustomed to relatively precarious jobs, felt well-equipped by experience of survival and established professional experience so far, to weather the storm.

Virtually all of those in employment or self-employment experienced challenges and had been required to modify how they worked. The impact of the pandemic varied by occupation, sector and in particular, whether they were required to work in their workplaces, could do their jobs from home or were prevented from doing so by lockdowns and Covid restrictions. Among the

many findings about the impact of Covid-19 on graduates in mid-career, we draw attention to the following:

- There were big differences in impact of Covid restrictions between those working on site and those working from home. Diverse (mainly) positive and but also negative impacts were noted for those working from home, including the effects on their mental health. Those required to attend workplaces, particularly in client or public-facing roles, were subject to health risks and many experienced associated stress. For essential workers, many were required to work longer hours, adapt to new ways of working and accept redeployment. Those prevented from working normally or from home (and in some cases, working at all) were more likely to have experienced furlough, loss of work and reduced incomes.
- Half of respondents claimed that their current situations had made doing their jobs more difficult, but this ranged from 33 per cent of those in Primary industries and Utilities to 67 per cent of those working in Education.
- Many graduates had to learn new skills; those experienced with online working and team-working experienced fewer difficulties. The Covid restrictions amplified development of new ways of working already being established in many organisations: virtual team-working, online meetings, reduction of non-essential work-related travel, use of technology in production and administration. Those companies where such practices were already established clearly coped with the pandemic challenges better.
- The 'gig economy' continued to work well for the majority of graduates who had accessed jobs where their occupational knowledge and skills were in high demand (for example, those with ICT, financial or other specialist professional knowledge), but not for the minority who had continued to work in unequivocally non-graduate jobs. Precarious jobs – self-employment, temporary contracts, fixed term contracts, part-time working – all have exposed graduates to negative consequences stemming from the pandemic: loss of jobs, loss of income, shorter hours, changed duties and responsibilities.
- In virtually all sectors, respondents reported that their career progress had slowed down, due to suspension of promotion panels and employer caution in workforce planning, but in some sectors (particularly marketed services), many also experienced substantial periods of furlough, fewer career opportunities and lost or reduced earnings.
- For those with children, restrictions about household mixing, closure of schools and childcare services, together with the need to balance home-schooling and working, created huge difficulties for parents, with evidence of both men and women adapting their work patterns to accommodate this challenge.
- Respondents reported significant re-evaluation of career priorities and life values. Experience of furlough, and working from home, appear to have had an impact upon how graduates are now evaluating their careers, with more emphasis on future home working where possible and on families.
- Respondents became more aware of the importance of good human resource management. Those working in organisations where they felt valued and trusted, well-informed about the pandemic's impact on their organisations and able to communicate

easily with their colleagues and managers, were confident that their organisations were responding effectively to the challenges posted by the pandemic.

- Nevertheless, there was a significant reduction in optimism about long-term career prospects (58% chose 1 or 2 on 7-point scale in 2019; 49% in 2020).

Recommendations

Based on these findings, we identify and make proposals related to five issues that policymakers and all concerned with graduate employment need to address:

- (i) *the persistence of the gender pay gap;*
- (ii) *more effective facilitation of flexible working arrangements for those required to work from home and the extension of flexible working opportunities to a wider range of employees than hitherto;*
- (iii) *putting in place policies and procedures to deal with the short, medium, and longer-term impacts of the Covid-19 restrictions and requirements on employee welfare;*
- (iv) *the collection of more comprehensive and timely information about higher education outcomes, particularly the social value of these outcomes;*
- (v) *the imperative for policymakers to take account of increasing fragmentation of jobs and employment precarity and develop mechanisms for protecting standards of employment and fostering income security.*

In conclusion, both the 2019 and 2020 studies of the Futuretrack cohort reinforce what are already well-established facts relating to the benefits of higher education. These are not just the increased earning power it confers relative to those who could, but do not, enter higher education, but also the non-pecuniary benefits, such as greater job satisfaction and the relative security that having knowledge and skills valued by employers confers on the job-holders, even during crisis and recessionary contexts.

It is difficult to predict longer-term outcomes, but we argue that the factors with the most profound implications for the future of the graduate labour market are (i) the role of employers in recognising the advantages and disadvantages to them and their employees in facilitating new ways of working, (ii) the extent to which technology has changed jobs and the skills and knowledge required to do them, and related to the last two point (iii) changing attitudes towards work, careers, commuting and flexibility.

1. Introduction

For over 15 years the Futuretrack Study has been following the progress of a large sample of graduates who had applied for a place at higher education institution in 2005. They were contacted prior to attending university, at the end of their first year, again at the end of their final year, then in 2012 and in 2019. Most of the information has been collected via online surveys, but in 2019 and in 2020, members of the research team also conducted detailed follow-up interviews with sub-samples of graduates about their experiences, their motivations, and their aspirations.

Most of the graduates in the study joined the labour market in 2009 or 2010. For many, the huge economic slump in 2008, brought about by the financial crisis, had made it difficult to find appropriate work, but by 2019 most were well established in jobs commensurate with their higher education knowledge and expertise.

At the beginning of 2020, everything changed. The pandemic led to lockdowns, business closures, new ways of working, furlough, and other forms of income support for those at risk of unemployment. As a global phenomenon, the pandemic had major repercussions in terms of trade and a huge impact upon the health of nations. How did graduates cope? To address this question, a further two surveys were conducted in 2020, most recently in December of that year.

Separate reports for Stage 5 (2012 – 2019) and Stage 6 (2019 – 2020) of the study have been published². The findings presented in those reports will be of interest to all concerned with higher education policy and graduate employment. The aim of this short report is to summarise the main findings from both, highlighting the impact that the pandemic has had on graduate careers in both the short term and its potential longer-term impacts. The picture that is revealed is salutary, showing both the resilience demonstrated by many and the difficulties that some faced. Their experiences were not random but manifested in ways that reinforced existing inequalities in terms of access to secure and enjoyable employment.

The structure of this summary report is as follows. After this introduction, Section 2 covers stage 5 of the study, the period from 2012 to 2019. It indicates the issues that the research team sought to address and presents the main findings from this stage of the study. Section 3 draws on the Stage 6 surveys and interviews to focus upon the impact of the pandemic, demonstrating how it affected these graduates, not just in terms of their economic position, but also how for many it reshaped their motivations and aspirations and, importantly, how it affected their mental health. Section 4 reviews the evidence and considers the short term and long run implications of the experiences of the last year on graduate careers. Based on the evidence presented in our most recent reports, Section 5 puts forward some recommendations for policy makers, suggesting how these might be taken forward.

² *Ten Years On – The Futuretrack Graduates* and *Covid 19 and graduate careers*, both of which can be accessed on the Futuretrack website www.warwick.ac.uk/futuretrack

2. Graduate Careers 10 years On: the 2019 Futuretrack Stage 5 study

Driven by technology, rising consumer wealth and global trade, the job prospects for those who are educated to a high level have become increasingly diversified throughout the latter decades of the 20th century and into the 21st, changing from a narrow set of privileged opportunities for an educated elite to a wide set of occupations now employing almost half the labour force. What has loosely been termed the 'graduate labour market' covers a varied and complex range of employment activities spread across all aspects of the economy from scientific advancement and high-level management to areas which include media, sports, recreation, the arts, crafts, and the environment.

The Futuretrack Study has enabled us to monitor the changing relationship between higher education and 'the knowledge economy', providing insight into the diversity of contributions to economic growth and social welfare made by recently qualified graduates. It has enabled us to assess the extent to which opportunities for graduates have increased in line with the increased scale of higher education participation.

Study participants have now been surveyed six times; three times as potential students or students and three times as graduates³. They were surveyed in Spring and early Summer 2006 as they awaited confirmation of their HE places, in Autumn 2007 after what for most had been their first undergraduate year, in Spring 2009 or 2010 (depending on the length of their courses) prior to moving on to the next career stage of labour market entry, postgraduate education or training, and in Winter 2011-12 which for most was between 18 and 30 months after graduation. Up till the fourth stage, the survey covered the full range of Futuretrack respondents, but the fifth and sixth stages, discussed in this report, included only those who had studied as UK-domiciled students.

At the fifth stage, respondents were surveyed in 2019, some ten years after graduation for the majority. As with all longitudinal studies, the sample had become smaller at each stage, but via a detailed online questionnaire sent between March and October, over 6,000 graduates responded, representing more than 2 per cent of the population of UK domiciled leavers from three or four-year full-time undergraduate degree courses in 2009/10. Two hundred of the survey respondents also participated in telephone interviews between mid-September 2019 and early January 2020, adding richness and understanding to their survey responses. This stage of the study covered the period from 2012 to late in 2019, immediately prior to the Covid-19 pandemic. The general picture emerging from the information collected at this stage was of successful integration to the graduate labour market. However, we also identified a minority of respondents who had been less successful in their transition from higher education to employment and in progressing from early to mid-career.

³ See <https://warwick.ac.uk/fac/soc/ier/futuretrack/findings/> for details about all stages of the longitudinal research.

2.1 Aims of the Stage 5 study

The Futuretrack cohort graduated into post-recession labour markets in 2009/10, where a significant proportion of graduates experienced difficulties in accessing employment that used and rewarded their knowledge and skills⁴. This stage of the research aimed to investigate their subsequent career development and to provide robust policy-relevant findings about the factors that had facilitated or obstructed these graduates' longer-term labour market integration. The objectives were:

- to assess the relevance of knowledge and skills graduates gained on their undergraduate degree programmes to their career trajectories;
- to reveal the opportunities and obstacles encountered in career development, in relation to educational, demographic, and socio-economic characteristics;
- to investigate respondents' attitudes to employment, family-building and wider values;
- to clarify the variables that underpin differential access to graduate earnings and the graduate premium, and how this compares with and perhaps enables us to better understand the findings of recent studies which do not include qualitative as well as quantitative research;
- to investigate the longer-term impact of debt on respondents' access to opportunities and their evaluations of their investment in higher education;
- via comparison with an earlier cohort study of 1995 graduates, to ascertain how the transition from higher education to employment had evolved over the fifteen-year period separating these studies.

2.2 Graduate and non-graduate jobs

The key question running through this research, as learners have been increasingly required to contribute to the cost of their studies and students encouraged to think of their higher education as a career-related investment, is "Is it worth it?". Policymakers tend to evaluate courses, and national investment in higher education, in terms of economic value⁵. We have found throughout that students and graduates generally take a broader view when considering their motivations in undertaking courses and evaluating their potential outcomes, but all had assumed that having a degree would provide access to a better, more satisfying job, whether in extrinsic or intrinsic terms, than they would otherwise have been able to access.

⁴ Purcell, K., P. Elias, G. Atfield, H. Behle, R. Ellison and D. Luchinskaya (2013). 'Transitions into employment, further study and other outcomes', Futuretrack Stage 4 Report, Institute for Employment Research, University of Warwick.

⁵ c.f. OfS Consultation on recurrent funding for 2021-22. <https://www.officeforstudents.org.uk/media/8610a7a4-0ae3-47d3-9129-f234e086c43c/consultation-on-funding-for-ay2021-22-finalforweb.pdf> and Department of Education (2019) Post-18 review of education and funding: independent panel report chaired by Dr. Philip Augar. London: Department of Education, May. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/805127/Review_of_post_18_education_and_funding.pdf

We built on previous work to distinguish graduate from non-graduate jobs and to further classify types of graduate occupations according to the knowledge and skills required to obtain them and do them competently. Using an aggregated version of the Standard Occupational Classification developed to examine the relationship between higher education and occupational outcomes, respondents were distributed in the different categories of this classification according to the age at which they commenced their study, gender, socio-economic background, ethnicity, and the type of university they attended.

*(My job is) a nice mix of both theoretical stuff and practical. It involves a lot of thinking and looking at data, but then also, I am getting hands on with, basically, 'big boys' toys around the power station. I get to interact with quite a lot of people every day, so there's a bit of a social aspect to it. **Nuclear operations engineer, male.***

At the time of the Stage 4 survey in 2011-12, 34 per cent were in what we defined as 'non-graduate jobs'; jobs which do not normally require the knowledge, skills and qualifications acquired via a university education (Elias *et al.* 2021:31). In 2019, we found that the proportion of employed respondents in non-graduate jobs had fallen to 16 per cent (*ibid.*). Those who had embarked on undergraduate study when aged over 26, women rather than men, those from routine and manual backgrounds and black graduates were more likely to be in what we have classified as non-graduate employment. Those who gained their undergraduate degree from universities with high entry requirements appear to have been more likely to access graduate jobs. There were significant differences in the distribution of graduates among the types of graduate jobs and occupations, and in the proportions found in non-graduate jobs, according to undergraduate subject of study.

While we observed differences between the range of skills used by those in graduate versus non-graduate jobs, more detailed investigation via the interviews conducted at Stage 5 suggested that very few respondents were in employment that did not make use of and benefit from the knowledge and skills acquired through higher education. Most were in areas of employment where organisational restructuring and access to ICT has changed workplace divisions of labour and how organisational objectives are met. Some were in low-paying sectors in the public or not-for-profit sectors where employers have been able to enhance the skill-base of their workforce, or (in the case of the latter) simply cannot afford to pay more when there is a ready supply of well-qualified and able workers willing to accept low wages. We did identify graduates who had continued to have trouble in obtaining the kinds of jobs they aspired to, but by 2019, a high proportion of the minority who clearly were in lower skilled employment were likely to have been making choices that reflected lifestyle or ethical values, as revealed when we examined responses related to career motivations.

*As long as I've got my work done in the day, it's kind of down to me how I do that. It's just a nice job. You're with women at an important time of their life, and they do remember you and they remember the care that you gave them. So, I do enjoy it. **Community midwife, female***

2.3 Graduate earnings

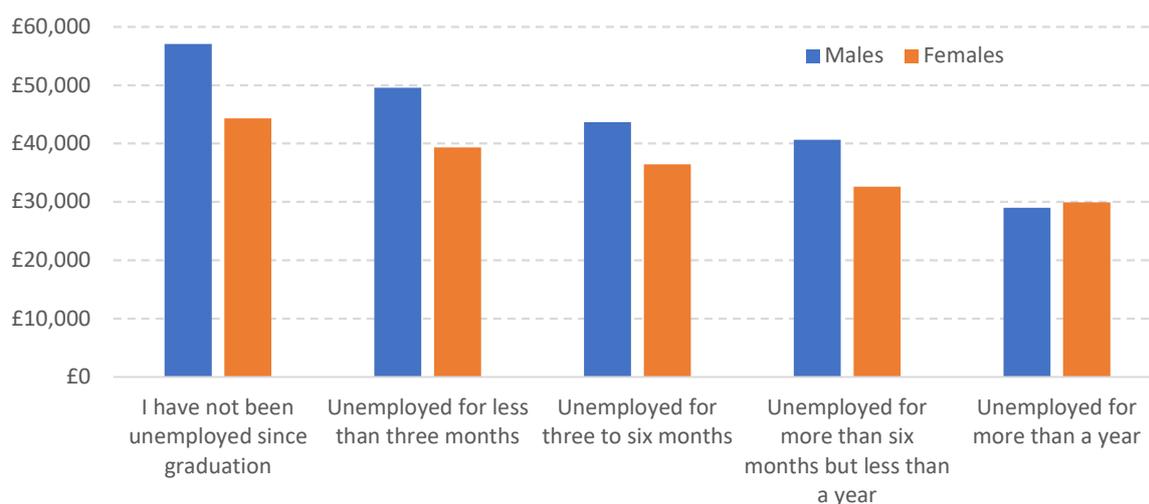
Prior research shows that a university degree confers what is termed a 'graduate premium', the extra earning power that can be attributed to having a degree. It is widely recognised that not all degrees are equal in this respect. We found, as others have done⁶ substantial variation in the graduate premium by subject of undergraduate degree and within subjects, by other variables such as regional location and other educational attributes. We had also found a clear gender pay gap at the early career stages, as we had when researching previous graduate

⁶ e.g., Belfield, C., Britton, J., F. Buscha, F., L. Dearden, L., Dickson, M van der Erve, L. Sibieta, I., Vignoles, A., Walker, I. and Y. Zhu (2018) 'The impact of undergraduate degrees on early-career earnings'. Department for Education Report, Institute for Fiscal Studies.

cohorts⁷. But how had their employment histories influenced earnings ten years on? Were female graduates now catching up with their male counterparts to a greater extent than had been the case for those graduating a decade earlier? How had social background impinged upon earning potential?

We confirm findings from research using other sources of information. An undergraduate degree confers a graduate premium and, relative to lesser qualified groups, the premium grows rapidly in the early years following graduation. But the financial rewards to a degree are mixed, with subject studied, type of institution attended and sector of employment playing a significant role in modifying the growth rate. We note also that employment continuity plays a major part in maintaining this premium. Just over half of the graduates in the Stage 5 survey reported that they had experienced unemployment of more than three months in total during the ten years they had been in the labour market, and this appears to have had a very significant impact on their earnings, as Figure 2.1 demonstrates. Detailed statistical analysis of earnings, accounting for many other influences such as social background, higher education entry qualifications, type of institution attended and class of degree does little to change this relationship, suggesting that those who have at some time struggled to gain immediate access to the labour market have faced financial penalties as a result.

Figure 2.1 Mean gross annual earnings of full-time employees by experience of unemployment since graduation and gender



Source: Futuretrack Stage 5 survey (n=4,348)

Social background did not appear to play a significant part in the growth of the earnings of graduates in this cohort, reflecting findings from earlier work⁸, which indicated how social background interacts with the education of young people from an early age, through school choices (or the lack of choice), the decision to apply for a place in higher education, parental support, and the experience of higher education itself. That is, social disadvantage is cumulative and opens or closes off opportunities from birth onwards and throughout educational careers, but once students access higher education, other variables, particularly

⁷ e.g., Purcell, K., Elias, P., Davies, R. and N. Wilton (2005) *The Class of '99: Graduate careers four years after graduation*. London: DfES, <https://warwick.ac.uk/fac/soc/ier/news/classof99fullreport.pdf> and P. Elias, A. McKnight, J. Pitcher, K. Purcell and C. Simm. *Moving On: graduate careers three years after graduation*, London: DfEE, CSU.

⁸ Elias, P. and K. Purcell (2017) 'Mathematics and social mobility'. Paper presented at the Western Economic Association International conference, January 5th, Universidad Catolica, Santiago, Chile.

their subject choices, the courses they have completed and their higher educational attainment, are more significant determinant of career outcomes than social background.

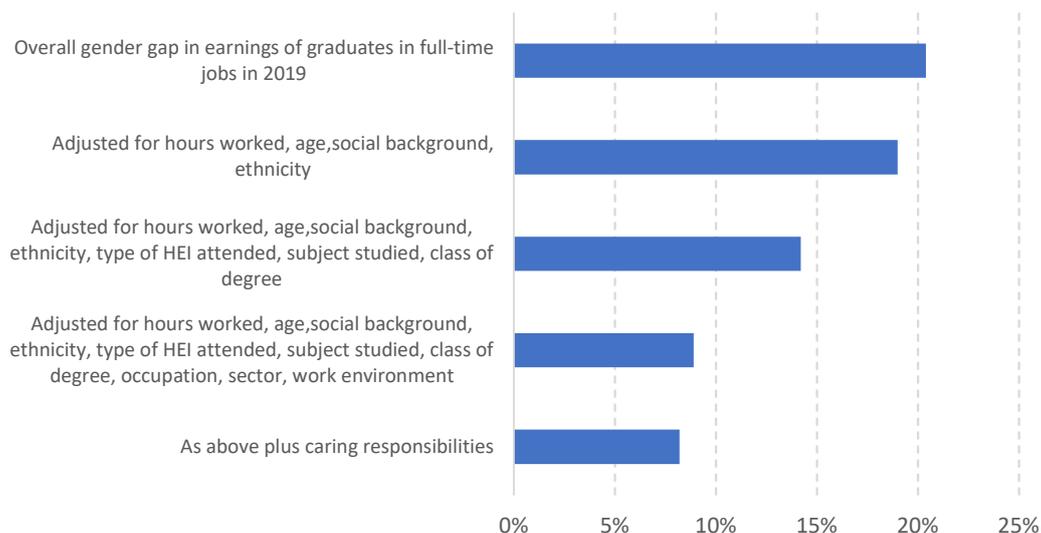
An important factor that affects access to high earnings and wide graduate occupational choice is geographical location. Our findings reveal the considerable regional disparities in average graduate earnings. Some participants had experienced very limited geographical mobility throughout the course of their education and subsequent careers, and at previous stages of the Futuretrack research we found that participants who lived at home while they were studying, except for those living in London, were disproportionately from lower social class backgrounds. They were also more likely to have attended higher education institutions (HEIs) of a lower tariff than their prior educational achievements would suggest they could have accessed. This lack of early geographical mobility is replicated in their careers ten years after graduation, with those who had been least mobile embedded in social networks and economic settings that may not have enabled them to maximise the financial return to their studies and develop their graduate careers. On the other hand, it was clear from our findings that many had chosen their locations because they provided them with the resources they required to develop their graduate careers and achieve lifestyle objectives within a regional labour market.

By comparing the growth of earnings of this cohort with that of an earlier group we studied between 1995 and 2000, we go some way towards determining whether graduation into the post recessionary labour market for the Futuretrack cohort impacted upon their earnings. We find that, on average, this was not the case. However, this finding may mask some important differences between the progress of those who have done exceptionally well and those who have not.

The most important finding from this cross-cohort analysis of earnings relates to the persistence of the gender gap in the growth of graduate earnings, with men continuing to outstrip women. We conducted a comparison of gender growth rates in earnings for those in full-time jobs, contrasting the experiences of a cohort of graduates we investigated from 1995 to 2002 with those of the Futuretrack cohort, from 2012 to 2019. Somewhat depressingly, we found that no improvement in their post-graduation earnings growth rates has been made by female graduates relative to males over this 17-year period.

When I came back after my first maternity, I felt like it basically reset my progress. And people saw me as junior level of the role I was in where I was actually one of the more senior ones in the office, which was a bit frustrating.
Actuary, female.

Figure 2.2 Analysis of factors associated with the gender difference in earnings of graduates in full-time jobs in 2019



Source: Futuretrack Stage 5 survey, appendix table B1

Figure 2.2 shows results from a detailed statistical analysis of the earnings of graduates in full-time employment in 2019. The gender gap in pay for this cohort of graduates in full-time jobs is just over 20 per cent. As the influence on earnings of other factors is considered, this gap declines to 8 per cent, given that differences between men and women in factors such as hours worked in these full-time jobs, the subject studied at university and the sector in which they work account for a substantial part of the gender pay gap. The residual gap is no different from that observed in the earlier cohort.

2.4 Student debt

While this cohort of graduates faced lower course fees than later cohorts, they were the first to face the rise in the fees cap to £3,000, introduced in the 2004 Higher Education Act, paying back their loans through the payroll tax system. Different systems were in operation in Wales and Scotland and, as we demonstrated clearly in our Stage 4 report, this led to lower levels of accumulated debt at the end of their course for graduates from these parts of the UK. Across all countries, the modal amount of accumulated debt at the end of their undergraduate studies was in the range of £20,000 to £25,000. An interesting question we sought to answer was whether such debt had constrained their career choices and if so, in what ways?

Our findings are mixed. We found that those graduates who told us in 2011 that their future options were limited by the debts they had accrued were earning less in 2019 than those who stated that they felt no such limitations. However, this finding appears to reflect the mix of subjects studied and type of university attended rather than the debts on graduation. There was substantial evidence from the interviews that many graduates regarded their student loans less as a form of debt than as an inevitable cost of study; a 'cost of living' variable like mortgage or rent payment rather than debt. Some reported that high levels of debt

*I've never really seen it as debt as such. Because how it appears on my pay cheque and how it's experienced, I think it's closer to a tax. It's just a set percentage of my money. **Chartered civil engineer, male.***

*It's more of the psychological impact of having huge amounts of debt hanging over you which makes you just want to have some sort of financial security rather than apply for a really good company graduate scheme and wait it out for a few months. **Catering operator, male.***

had led them to be cautious in their employment choices, settling for secure but less well-paid jobs than they would otherwise have chosen.

We conclude that the student debts incurred by this cohort of graduates do not appear to have a deleterious impact on their later careers. However, we must stress that the graduates in our study did not pay the higher tuition fees introduced in 2010. How well the experiences of the graduates in this study translate into the experiences of later graduates with borrowings three times greater is a question open for further investigation.

2.5 Postgraduate education

Many graduates we have tracked went on to postgraduate education. We investigated the role played by postgraduate qualifications in the labour market integration of this cohort. Analysing interview data on the motivation to engage in further study, we identified professional development and strategic career building as the two main factors. Avoiding, postponing, or attempting to deflect the effect of the 2008 financial and economic crisis had also been an important motivation to enter postgraduate education for many members of this cohort, despite the scarcity of funding available to postgraduate students. We note the strong relationship between the professional career path being followed and the extent to which postgraduate education plays an important part in these pathways.

We found that 20 per cent of those graduates who worked in jobs requiring postgraduate qualifications were employed on fixed-term contracts. Despite this potential insecurity, three quarters of those working in such jobs felt that their jobs were ideal or almost ideal for someone with their qualifications, compared to a half of other postgraduates, stating also that they had clear career plans for the next five years, were more optimistic about their career progression and more confident that they had the skills employers are looking for.

2.6 Career motivations

Much of the research on the graduate labour market has focussed on earnings, equating high earnings with successful labour market integration. One of the strengths of the Futuretrack study is that we can draw on information that permits a wider view of the benefits of higher education. From the detailed transcripts of our interviews with graduates we were able to explore what is a relatively under-researched area, the motivational factors underlying the varying career pathways that we observe. How far is it possible to distinguish different pathways according to the values that graduates place on different aspects of their jobs? The benefit of longitudinal research is that we can track these values from an early stage, thus ensuring that they are not a *post facto* rationalisation of graduate outcomes.

Responses to a question about main reasons graduates had taken their current jobs revealed that those in the graduate job categories were significantly more likely to have done so for intrinsic work-related reasons than those in non-graduate jobs and revealed high levels of satisfaction with their current jobs. As at the previous stage of the survey and earlier graduate tracking studies, the most often-cited long-term values were 'doing a job I really enjoy' and 'developing my capabilities'. These job attributes, along with 'career progression', 'job security' and 'the ethics of my employer' were all more frequently rated as very important than 'high financial reward'. Nevertheless, 70 per cent of the respondents rated both 'high financial reward' and 'doing socially useful work' as very important. Perhaps the most interesting finding among these ambitious graduates is the substantially increased incidence of rating job security highly in comparison to responses at the earlier stage of this research and in earlier UK studies. This may reflect the life-cycle stage of these respondents but may also reflect their earlier experiences or awareness of the increase in precarious employment and its disadvantages.

We examined the relationships between responses to questions about values and achieved occupations, having grouped respondents into those who placed a high value on financial rewards and prestige, those who placed more emphasis on social values and those who strongly valued job security. We found that graduates who valued money and prestige were more likely to be found in higher paid, higher status jobs than others, but this had not generated similarly high levels of subjective satisfaction with their pay and progression; they wanted more. Graduates who had put a strong emphasis on social values earned less in comparison, but they achieved employment outcomes that generated social value and in doing this, achieved success on their own terms. Those who emphasised job security appear to have sacrificed other objectives in the pursuit of security, leading to lower levels of job satisfaction overall.

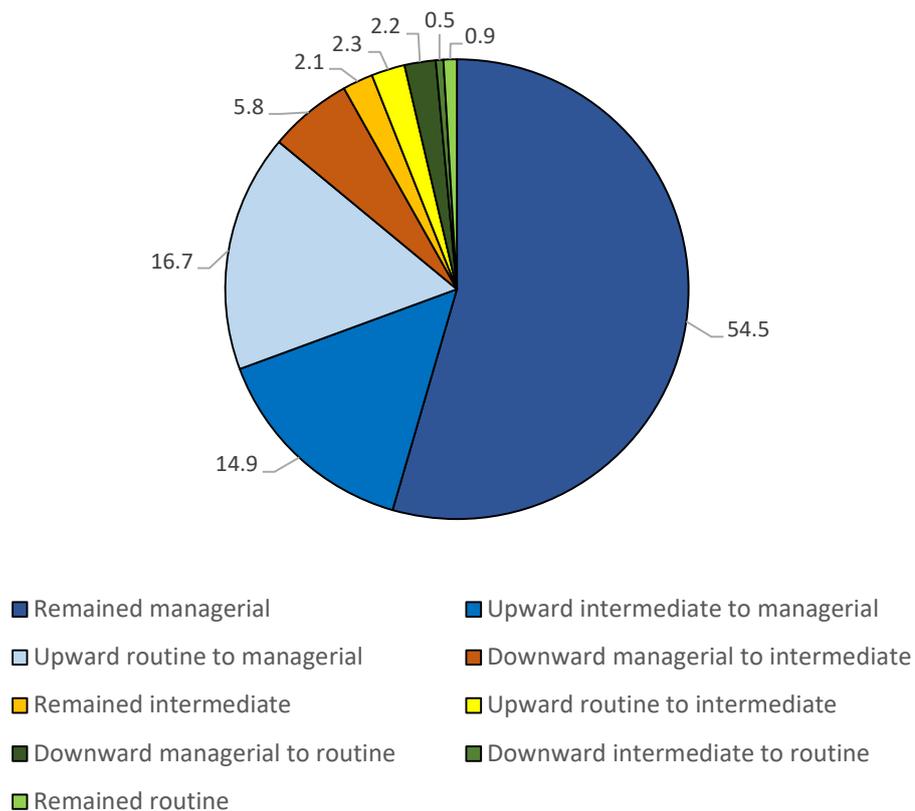
2.7 Social mobility

One of the main questions that has underpinned our research has been the extent to which increased levels of participation in higher education has increased equality of opportunity and enabled students from socially disadvantaged backgrounds to be socially mobile. Higher education has been considered by successive policymakers to be a driver of upward social mobility, enhancing the human, social and cultural capital of participants in ways that makes degree-holders more competitive in the labour market. However, successive sociological studies have questioned the extent to which education, rather than industrial restructuring and associated changes in the *demand* rather than the *supply* of labour, led to change in rates of social mobility for earlier cohorts⁹. Our previous research has shown that socio-economic background affected opportunities and choices throughout graduates' educational careers, but what was its impact ten years after graduation? Had their investment in higher education participation been uniformly beneficial to all participants or had it disproportionately built on advantages while entrenching relative disadvantage for others? How had social class interacted with other factors, such as gender and ethnicity, to shape the opportunities of graduates and their trajectories as they developed and consolidated their careers?

By comparing the occupations of graduates with those of their parents, using the three class categories of the National Statistics Socio-economic Classification, we examined intergenerational patterns of social mobility and found that upward mobility appeared to have been common. As for previous generations, people from relatively socially advantaged backgrounds remain more likely to participate in higher education than others, and at the outset of their studies, 62 per cent of respondents to the 2019 survey had come from a professional or managerial background, 18 per cent from an intermediate background and 20 per cent from a routine or manual background. By the time of the survey, 86 per cent were employed in professional or managerial occupations, 10 per cent in intermediate occupations and only 4 per cent in routine or manual work. This was very encouraging, but within this positive overall picture, we found important differences in the experiences of graduates as their careers developed. Figure 2.3 shows the extent of both intergenerational mobility and stability experienced by Stage 5 survey respondents.

⁹ For detailed discussion of the issues and evidence from successive cohort studies, see Bukhodi, E. and J.H. Goldthorpe (2018) *Social Mobility and Education in Britain*. Oxford: Oxford University Press.

Figure 2.3 Intergenerational movement between occupational groups



Source: Futuretrack Stage 5 survey, all in employment and indicating parental social class (n = 5,098)

We found that although most of the graduates from routine and manual background had progressed into higher socio-economic categories, the positions that they occupied within these categories tended to be lower, and they earned less on average, than their middle-class peers. The majority had entered lower managerial and professional roles but were more likely to stay there than their initially socially-more-advantaged peers – they could get *in*, but they were somewhat less likely to have got *on*, by progressing further into higher status and better-paid roles, or to have entered the most elite organisations and occupations. Although this was by no means inevitably the case, the qualitative accounts provided by graduates largely confirmed this and illustrated ways in which gender and ethnicity had interacted with these broad patterns to reinforce or limit access to opportunities. There is evidence in our findings and that of others cited, that factors such as social class, ethnicity, and especially gender play a role in how people’s performance is evaluated, their ability to demonstrate through use the knowledge and skills that they possess, assessments about their suitability for promotion and managerial roles (and their own wishes for such roles)¹⁰. This, and their professional and personal networks, facilitated or restricted the opportunities presented to them in the workplace and the wider labour market. We found evidence that the graduates’ age and life-cycle stage was bringing new inequalities and advantages and disadvantages to the fore: for example, in the different impact of family building on the careers of men and women. Such evidence as we found of downward occupational social mobility was mainly restricted to women choosing to work part-time to balance family caring responsibilities and/or reflected other lifestyle choices or values. Examples of the latter include

I think anyone who, at least when I was starting out in looking for work, anyone who has connections always does better ultimately. And anybody who is prepared to network, does better. Solicitor, male.

¹⁰ e.g., Bathmaker, A-M., Ingram, N., Abrahams, J., Hoare, T., Waller, R. and Bradley, H. (2016) *Higher education, social class and social mobility: The degree generation*. London: Palgrave MacMillan.

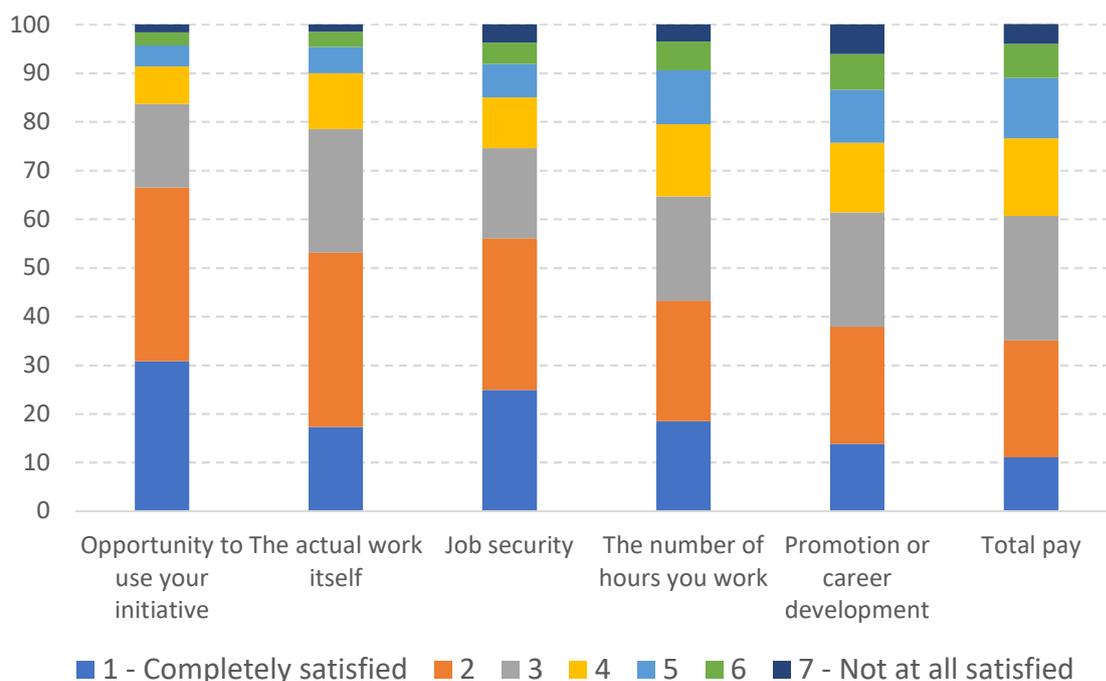
those working in relatively routine administrative tasks in charities, entrepreneurial graduates who chose self-employment as craft workers (some, such as jewellers and clothing manufacturers unequivocally using their Arts degrees knowledge and skills).

2.8 Graduate careers 10 years on – the situation in late 2019

Stage 5 of this study enabled us to describe in detail how the classes of 2009/10 made their way into and through the labour market, from graduation and labour market entry to their situation nine or ten years later. It illustrates well the ways in which graduates found employment in all sectors of the economy, with employers often transforming what would previously have been called a non-graduate job into work which utilises their higher-level skills and training. Globalisation, technology, organisational restructuring and changes in patterns of production and consumption progressively change knowledge and skills requirements. Graduates since the last decades of the 20th century have increasingly been required in sectors which previously would have recruited few new employees with higher education qualifications: tourism, cultural activities, sport, hotels, and catering, recreation for example.

Despite some evidence that a small minority of the ‘Class of 2009/10’ had found integration into the labour market to be a difficult process, the predominant conclusion to be drawn from this stage of the study was that they were making strong contributions to the economy and society. Even though this cohort had joined the labour market immediately after one of the deepest depressions seen in the UK since the 1930s, their progress, with few exceptions, showed how valuable their higher education had been in equipping them to establish themselves in jobs commensurate with their higher education skills and knowledge. They were engaged in jobs across all sectors of the economy, using the skills and knowledge gained from their undergraduate studies and, for many, from further high-level education and training. Most were satisfied with their career outcomes so far and with their current jobs and work, as Figure 2.4 indicates.

Figure 2.4 Respondents' satisfaction with various elements of current work and employment (% in each satisfaction scale element)



Source: Futuretrack Stage 5 survey, all in employment (n=5,507)

The Stage 5 survey held in 2019 found interesting changes in the structures and processes of work, largely resulting from economic restructuring of the occupational labour market for highly skilled workers and the impact of technological development. Their working arrangements were often not typical of the '9 to 5' routine 5 days a week that had been the dominant mode of working since the 1950s. We found many balancing more than one part-time job, some self-employed and others working successfully in and around what we now term the 'gig economy'¹¹.

Their pathways were varied. For some, this had involved further study, for others a succession of jobs building up their experience and applying their knowledge in a variety of ways. Many worked in the public sector or had chosen to work in charities, while others worked in the private sector. Those who were self-employed tended to be either highly paid health professionals, management consultants, or those with skillsets that could be readily transferred from one job to another, such as IT professionals. Others had opted for a lifestyle that suited them, eschewing high salaries for the benefit of enjoyable work. Employers were clearly benefiting from the increased supply of highly qualified labour. While we found evidence indicating that a significant minority of the graduates had encountered initial difficulties in accessing the kinds of employment they sought, and many had found it necessary to build on their undergraduate degrees via further study or training to be able to realise the benefits of their higher education, by 2019 it is fair to say that most had established themselves in fulfilling roles. They were relatively well-paid, and many were settling down to have families. Even as our last interview was conducted in January 2020 no one had any idea quite how significant a challenge most would soon be facing.

¹¹ Department for Business, Energy & Industrial Strategy (2017) *Good Work: The Taylor Review of Modern Working Practices*.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/627671/good-work-taylor-review-modern-working-practices-rg.pdf.

3. Covid 19 and graduate careers: the 2020 Futuretrack Stage 6 study

Stage 5 of the Futuretrack study had revealed that a significant number of graduates had remained in, or opted for, precarious or potentially precarious employment. On average, 7 per cent were self-employed and 13 per cent in fixed-term contract employment or other forms of less secure of employment, but these proportions varied considerably by sector. Following the onset of the pandemic, it became apparent that many of these graduates, along with an increasing proportion of those who had previously been on what they regarded as secure career trajectories, might be facing substantial challenges because of Covid-19 restrictions and its economic and social repercussions. It is for this reason that Stage 6 was undertaken just one year later. The strength of the Futuretrack research is that, immediately following detailed research prior to the onset of the pandemic, it provided the opportunity to conduct a study of the impact of the pandemic *as it was happening* on the mid-career progress of those who are, in many ways, expected to be most able to adapt to the changes thrust upon them.

3.1 Aims of the Stage 6 study

By returning to members of this cohort late in 2020, we could explore the ways in which the Covid-19 pandemic had impacted upon their lives, not just by looking back over the past year at the immediate effects of the restrictions imposed because of the pandemic, but also looking forward. Will the gains made by 2019 prove to be more precarious than they had seemed? In a stalling and shrinking labour market, who would have the experience, strategies, and dispositions to maintain their position? We wanted to find out how their experiences of work during the Covid-19 restrictions and the immediate economic impact on demand for products and services were affecting their material circumstances, employment and financial security, and their career plans and wider aspirations.

With these questions in mind, all the Stage 5 respondents who had given us permission were recontacted via a brief online enquiry in September 2020 to establish their immediate circumstances, followed by a short survey in December 2020. Several in-depth interviews were also conducted with graduates to shed more light on their varying experiences. The December 2020 survey was short but included options for respondents to provide free text responses to questions. What happened was surprising. Rather than just a few respondents availing themselves of the free text options, as is normal in surveys of this kind, we received long and detailed accounts from thousands of respondents of the many problems and issues they had faced, their changing work/life balance, their mental health issues, as well as some of the positive aspects of the impact of Covid restrictions on their lives.

3.2 How much had the graduates' circumstances changed between 2019 and 2020?

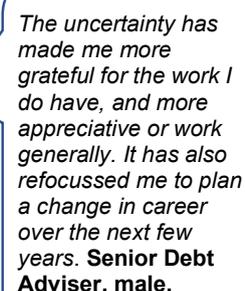
We found, as when we surveyed these graduates in 2019, that although their experiences varied, the majority remained securely integrated within the labour market, mainly in graduate jobs. We know from the interviews and previous findings from graduates surveyed in mid-career that academic qualifications become progressively less important than employment experience and track records as careers advance, but 70 per cent continued to indicate that a degree had been a prerequisite for their current jobs (52 per cent an undergraduate and 19 per cent a postgraduate degree). The most reliable indicator of appropriate labour market successful integration is that 90 per cent were in senior management, professional or associate professional occupations: albeit with earnings covering a wide spectrum that reflected the different sectoral and occupational labour markets which the respondents had accessed.

The earnings of most of the respondents were not greatly affected by the pandemic, but a minority (16 per cent) reported that they had seen their personal incomes decline between March 2020 and December 2020. This decline was not experienced in a random fashion. The groups that saw their incomes fall tended to be among the lower paid graduates, those with gross annual incomes less than £21,000, the self-employed, and those holding jobs in the hardest hit sectors, transport and tourism, hotels and catering and construction. In terms of their undergraduate degrees, those who had studied creative arts and design were disproportionately represented among those reporting a decline in their personal incomes. Conversely, those who had first degrees in maths and computing were much less likely to have experienced any decline in their incomes. Some of the highest paid graduates reported declines in their income, in some cases reflecting restriction of numbers of clients or patient appointments, leading to reduction of caseloads during the pandemic.

There was a small amount of movement out of and into self-employment, but the proportion in self-employment overall remained stable at around 7 per cent, disproportionately concentrated in Marketed Services (mainly Arts, Entertainment and Recreational activities) and Business Services. Those in the former were mainly working freelance in areas of activity severely affected by lockdown restrictions, and like self-employed professionals in other areas, had been vulnerable to a reduction in demand for their services and loss of work and income, whereas those in Business Services mainly provided ICT, legal or financial services and had generally been able to go on working from home throughout the pandemic. Those who had been self-employed for less than three years and were consequently ineligible for government support in the face of Covid were vulnerable to income reduction and insecurity and in fact, only a third of self-employed respondents had been able to rely on government compensation for lost income. It is perhaps not surprising that one of the main themes mentioned in the open-ended responses was increased concern about employment and income security. Many of those who were self-employed reflected that they felt more vulnerable, while others who had considered or had the option of self-employment reported feeling less inclined to make this move than in the past.

There were few examples of unemployment and redundancy. Although many had experienced furlough, few had lost their jobs by the end of January 2021. Where they had, most had obtained alternative employment, some with increased earnings. At the time of the exploratory enquiry in September 2020, two per cent of economically active respondents had been made redundant and 21 per cent were worried about their longer-term job security. When we followed up some of those in December, we found that their fears had not been realised. Many worked in organisations which had reduced staff numbers radically, and having survived these culls, felt more confident about the future. In one case, the hospitality company a respondent had worked for had been taken over by a competitor, and his job was lost in the merger where many colleagues were made redundant, but he was invited to re-apply and immediately transferred to a similar post with the new employer. In another, an administrator working for a utilities company had been trained in and acquired increasingly specialist skills and been promoted to a post that was unequivocally a management post with a salary increase and managerial fringe benefits.

However, those who had experienced furlough and those who worked in organisations where they had felt vulnerable to loss of employment had become less confident and optimistic about the future and were more likely to be rethinking their longer-term career options. This was particularly the case where respondents and their colleagues had experienced involuntary job change, in the sectors identified throughout the report as most vulnerable to the economic impact of the pandemic, mainly in the private and not-for-profit sectors and among those in precarious employment. Those in the public sector



The uncertainty has made me more grateful for the work I do have, and more appreciative of work generally. It has also refocussed me to plan a change in career over the next few years. Senior Debt Adviser, male.

were less likely to have been furloughed and were generally grateful to have secure employment, although not always happy about how the pandemic was being handled by their managers.

3.3 How had their work changed?

Most had experienced change in how they did their jobs, whether working in the workplace or from home. Many had experienced intensification of work, caused by the increased volume of work; having to adapt to the risk of catching Covid-19; having to adopt new, 'Covid-secure' working practices, or related to having to keep up with the often-changing rules and regulations around these practices. In addition, most Futuretrack participants who continued to work on-site had to adapt to a change in the content of their work during periods of redeployment, especially in the health service and education. Those in 'frontline' public roles faced health risks and the distress of being unable to spend time with vulnerable family and friends: a frequently mentioned complaint by members of this cohort whose age meant that they were likely to have grandparents (and sometimes children, or pregnant friends), who they felt unable to expose to the risk of spending time together even when restrictions were modified. All of this has been widely reported for those employed in the provision of essential services, but also affected those in customer or client-facing roles during periods when their organisations were able to operate.

Table 3.1 summarises some aspects of the situation that respondents found themselves in by December 2020, approximately one year after they had reported their previous circumstances.

Those working from home for most or all the time largely avoided the health risk challenges. Some jobs lent themselves more easily to remote working than others and the limitations and advantages of virtual working impacted differently according to their roles, the degree of autonomy they had over their working days, their familiarity with online working and their ICT competence. The experience of working from home ranged from some Futuretrack graduates reporting improved work focus and work-life balance at one end of the spectrum and others reporting isolation and mental health problems at the other end. Some had experienced both at different points since the start of the pandemic, as the novelty of the changed circumstances wore off and anxieties and unpredictability continued.

My company furloughed and then made redundant half of my team; I'm now doing the work of my direct reports as well as my own work. This is a similar experience to other staff at my level
Site Supervisor, female.

I have had to go back to the office full time despite being able to work from home and with difficulties around childcare as well as anxieties around catching the virus and passing it to my pregnant wife. It has been very difficult.
Strategic Planning Manager, male.

Table 3.1 A comparison of key characteristics and responses to the December 2020 survey, according to 6-category industry sector*

Situation in December 2020	Primary & utilities	Manufacturing & construction	Marketed services	Business services	Education	Other public services
Permanent or open-ended contract	82%	93%	72%	86%	74%	79%
Self-employed	10%	4%	19%	9%	4%	4%
Other insecure employment	8%	3%	10%	5%	22%	17%
Working from home some or all of the time	62%	69%	56%	77%	52%	51%
Worried about contracting Covid at work	25%	31%	46%	32%	61%	52%
Working more hours	24%	25%	21%	27%	26%	25%
Working less hours	4%	7%	24%	10%	7%	7%
'Current working situation has made doing my job more difficult'	33%	39%	53%	33%	67%	56%
'Likely to experience loss of employment or work because of the pandemic'	3%	5%	27%	8%	7%	3%
'Personal income decreased significantly since the start of the pandemic'	5%	5%	17%	5%	4%	4%
Number in sector	115	331	424	945	840	1,186

Source: Futuretrack Stage 6 survey 2020, all employed and self-employed with known industry

*See Covid 19 and graduate careers Appendix A2, Table A.1 for the industries included in each of these categories.

When talking about their experiences of working from home, many participants attributed their difficulties with it or preference for it to individual habits or personality traits that made them 'suited' to remote working. However, it was clear that in addition to the nature of their work, their experiences were shaped by multiple environmental factors, such as the quality of working space and resources available to them, whether they shared accommodation with others, and the length and the quality of their normal commute. Those with limited space or who shared space faced greater difficulties than others; those with children faced challenges during lockdowns when their normal childcare support was not feasible.

Working remotely required many respondents to adapt to online working to a greater extent than they had previously experienced. Those who were accustomed to remote working and virtual teamworking, whose jobs included substantial online working, were less likely to have been furloughed and able to continue working effectively from home, and less likely to report experiencing stress. In some cases, employees not previously permitted to work from home had found that it had improved their ability to do their job effectively. Although most were surprised how much they enjoyed having more time with partners and family and valued the greater opportunity to balance work and life without the need to spend time on commute or

*I'm exhausted. What I've learned working through Covid is that basically, despite being the breadwinner and earning six figures, I am not in an equal partnership and as a woman I am still expected to do the lion's share of emotional labour and childcare outside of work hours.... This means I am still putting in a 'second shift' and often called to help with things with my child during the workday or have to have meetings when she is calling out for her mummy which is really tough. **Senior manager, female.***

travel, most parents had found the additional work involved in childcare and work simultaneously stressful.

The combined effect of these changes was that many participants working on-site reported 'frontline fatigue' while those working remotely often reported exhaustion caused by the breakdown of boundaries between work and non-work time and space, and the difficulties of managing these boundaries. In addition, some Futuretrack graduates reported loss of anticipated training and development and promotion opportunities, although a small number reported that new opportunities for career development had opened to them, whether they worked from home or continued to work on-site within their organisation.

I think there is a silver lining to COVID-19 in terms of increased workplace flexibility for the future, and the opportunities as a future candidate when looking for a new role - as I may be able to consider roles located further away from home, due to the reduced necessity to be in the office regularly. Legal Counsel, female.

3.4 The importance of employers

The perceived support of employers was an important factor shaping the experience of Futuretrack graduates: good communication and support led to increased commitment while the lack of communication and support led to a loss of trust in employers and trade unions, with some participants reporting that they were planning to change jobs or even careers. Those in teaching jobs stood out as having been subject to particularly tough challenges, mostly involving hybrid working, with the requirement to participate in classroom teaching whilst simultaneously developing innovative teaching methods for online and distance-managed delivery, echoing findings in a recent national report on the teaching labour market in England¹². At the other extreme, those accustomed to working in multinational and multi-divisional organisations with partners, colleagues, and clients around the world, were accustomed to working as part of virtual teams, holding online meetings, and using ICT for a substantial part of their working day. For them, customary national and international travel had been curtailed, which was a source of regret for some but relief for others, and the move to more home-based working was largely seen as timesaving and facilitating for their 24-hour management of global time differences.

It is clear from accounts and comments of the Futuretrack respondents that some organisations and employers found it easier to adapt to the changes than others, reflecting their previous experiences of distance working, their management styles and the prior flexibility and working modes of their employees. The capacity to adapt to the changing circumstances in which the different phases of lockdown, tiered restrictions and gradual loosening of restrictions evolved between March 2020 and January 2021 was a common challenge, but some organisations and sectors coped better than others. Such 'agile' employers¹³ described by the graduates included highly-profitable global and national multi-site organisations which tended to be better-equipped and more able to take account of the changed circumstances in which they were required to operate, but also charities committed to employee participation in decision-making and environmental sustainability, and small companies accustomed to working collaboratively across occupational boundaries. Hitherto prosperous companies building on an existing fluid approach to work, already routinely holding online meetings with clients in a range of locations, already encouraging working from home

¹² Worth, J. & Faulkner-Ellis, H. (2021) Teacher Labour Market in England Annual Report. Slough: National Foundation for Educational Research (NFER). <https://www.nfer.ac.uk/teacher-labour-market-in-england-2021/>

¹³ Aghina, W., Ahlback, K., Lackey, G., Lurie, M., Muraka, M. and C. Handscomb (2018) *The five trademarks of agile organisations*. McKinsey & Company Report, January 22. <https://www.mckinsey.com/business-functions/organization/our-insights/the-five-trademarks-of-agile-organizations>

for some of the time, found it easier to cope from the outset and to take account of the new situation. Similarly, the interview and qualitative data illustrated clearly that some companies have been better at 'managing distance working' than others. A significant theme in comments made by the respondents was the extent to which they felt that their employers took account of their welfare in their management of the pandemic, as is discussed in section 4.1. Most of the organisations that that did not routinely operate online and had to substantially modify their practices and policies, found it challenging to manage repeated changes in restrictions, availability of resources and market circumstances.

In short, the challenges faced by respondents varied substantially according to sector and occupation, but the key finding common to all was the importance of having confidence in their employer's competence and concern for the welfare of their staff. The effect on their motivation and commitment to meet new challenges reflected the degree to which they felt their interests were being taken into consideration and their work was valued. Not surprisingly, those in jobs that had been subject to furlough or who worked in precarious sectors were most concerned about the sustainability of their jobs. In the full Stage 6 report, we included a detailed discussion of the data related to two groups of respondents who appeared, in very different ways, to have been substantially affected by the Covid-19 restrictions, requirements and their economic effects¹⁴.

3.5 Hidden injuries and unforeseen benefits of the pandemic?

- Gender and gender inequalities have been major themes throughout the Futuretrack analyses. What was the impact of the pandemic on our respondents' work-life balance and well-being? How had caring for children who were unable to attend schools and nurseries affected their capacity to continue to work effectively and impacted on the dynamics of their work-life balance? While working from home may have provided more time for family relationships, it also added new work which, during the pandemic, was difficult to sub-contract to paid helpers or share with family members in different households, such as grandparents, in the traditional dual-career way. We were also interested to investigate the extent to which gender divisions of labour appeared to have been changing among these generally well-paid young people with equally highly developed human capital. We found substantial evidence of male participation in and responsibility for parenting and childcare, but as with other studies, more evidence of modification of hours and working patterns, including withdrawal from employment, by women, some of which pre-dated the onset of the pandemic.

We found the impact of the changed working practices on mental health to be a major topic raised during interviews and written about in the open-ended survey questions. This ranged

¹⁴ These were schoolteachers and those working in (mainly performance) arts, entertainment, and recreational employment. For both groups, the short-term impacts have been traumatic and difficult to handle, leading them to question their longer-term career aspirations.

from comments about how the move to working from home and reduction in commuting and workplace stresses had led to improved mental health, better sleep patterns and healthier lifestyles, to reports about extreme stress, anxiety, loneliness and isolation, depression, periods of sick leave and suicide attempts, both due to the pressures and worries of front-line working and to the difficulties caused by having to learn new skills in inadequate circumstances with restricted work space and resources. For those who had been furloughed or were anxious about the sustainability of their jobs, careers and earning potential, isolation and anxiety sometimes segued into depression. For those living in shared accommodation, especially those sharing childcare responsibilities, the requirement to negotiate about use of space and time sometimes led to stress. Where respondents lived alone, the social isolation had proved very challenging and caused some to re-evaluate the extent to which work had previously dominated their lives to the exclusion of other activities and friendships. Many reported that the impact on their mental health was causing them to re-evaluate their career aspirations and future plans: to move out of jobs that, they realised, had caused them undue stress prior to the pandemic and they now recognised had had a detrimental effect on their well-being, or to move from insecure jobs that they loved, where their insecurity had been exacerbated by the restrictions and they saw no way out, to more sustainable work.

*As a keyworker during the pandemic when job pressure increased significantly, I now feel very undervalued as there was little appreciation from the public or my employer. This combined with the lockdown restrictions (meaning I was cut off from my usual support network) lead to a notable decline in my mental health. **Pharmacy Technician, female.***

3.6 Resilience and vulnerability

At the end of the December 2020 survey, we reminded respondents about graduating into the earlier recessionary graduate labour market and asked them if they thought that experience had led them to be able to cope better or less well with the forthcoming one that was generally predicted. We found the same degrees of confidence and anxiety according to the subject they had studied and according to their contractual status and employment security, as identified throughout the Futuretrack post-graduation stages as likely to be associated with successful career development and less successful labour market integration. Those who had studied creative arts, non-STEM subjects and cross-disciplinary combinations¹⁵ were most likely to anticipate negative effects, with those in non-graduate jobs significantly less likely to feel confident of coping well, and those without permanent contracts of employment more likely than those with them to face the future with trepidation. Those in non-graduate jobs reported feeling vulnerable. None of this was unexpected.

What was somewhat different to expectations was the extent to which higher proportions of those working in Marketed Services were substantially likely to anticipate negative effects, followed some way behind (but still significantly higher than for those in other sectors) by those working in Education: two of the sectors we identified as having been affected most profoundly by the changes in working practices.

The most surprising finding was the extent to which a substantial proportion of the respondents indicated their career plans, values and aspirations had been affected by their experiences during the pandemic. Both workplace and home-working changes and their ramifications and their experience of the Covid situation had made them think differently about what is important to them in their career. This was reported by more than half who had first degrees in certain

¹⁵ STEM subjects comprise Natural Sciences, Technologies, Engineering and Mathematics; non-STEM subjects are Humanities, Social Sciences and Arts disciplines including Anthropology, History, Literature and Languages, and LEM subjects were Law, Economics and Management, Cross-disciplinary subjects were those which involved study in more than one of these disciplines. In the classification system used in the full reports we also distinguished vocationally based subjects.

subject areas, particularly those who had studied Creative Arts, non-STEM academically focussed subjects and, more surprisingly, LEM subjects. This also applied according to broad industry sectors, particularly those in Marketed Services, with those in Primary and Utilities being the only broad industry sector where less than half were thinking differently about what is important in their careers.

3.7 Were Futuretrack graduates now less optimistic about their longer-term career prospects?

The answer is yes. Of those participating in the 2019 survey, 78 per cent had scored themselves highly when asked to how far they agreed with the statement 'I am optimistic about my long-term career', and by the time they completed the 2020 survey, this proportion had fallen to 70 per cent. This remains, on balance, a positive finding in a context where there has already been substantial loss of job security with further uncertainties predicted.

Those most likely to remain optimistic about their long-term career prospects had the following characteristics: they were male, had been under 21 when they embarked on their undergraduate studies, came from managerial and professional backgrounds, had studied Medicine & Dentistry or Maths & Computing. They were more likely than others to have professional qualifications, to be working in jobs with high graduate density, and employed in Manufacturing or in Other Public Services. Conversely, those who had been over 26 at the start of their undergraduate degree, had studied Art & Design, Languages or Historical Studies or who were working in a job with low graduate density were less likely to be optimistic. Those who had experienced unemployment, and were caring for adults, also reported low levels of optimism.

I was offered an amazing opportunity, but it was only on a short-term contract, so I had to turn it down because I was not confident of finding another role afterwards in this climate. Last year I would not have been worried about securing something else.
Senior Marketing Manager, female.

4. What does it all mean for graduates and their employers?

4.1 Reviewing the evidence

The period since the onset of Covid-19 has been characterised by remarkable changes in work modes and lifestyle changes among the Futuretrack participants. For some this has been positive, for some negative and some it had both positive and negative aspects, but it has shaken up the graduate labour market in a way that would have been unimaginable pre-pandemic. In the preceding analyses, we have identified where the impacts have been greatest and which graduates have been subject to the most significant changes and challenges. It is difficult to predict longer-term outcomes, but we argue that the four factors with the most profound implications for the future of the graduate labour market are (i) the role of employers during the pandemic, (ii) the extent to which technology has changed jobs and the skills and knowledge required to do them, (iii) the extent to which the need for employees in professional, technical and administrative jobs to work from home has facilitated or restricted organisational effectiveness and productivity, and related to both the last two points (iv) changing attitudes towards work, careers, commuting and flexibility.

It is clear from the findings of this research that some employers reacted very proactively, positively, and reassuringly to preserve their highly qualified labour, while others simply made use of furlough money and waited for things to get better, with little planning for the post pandemic period. The levels of dissatisfaction and the accounts and comments provided by those working in the education sector stand out beyond other professions. With budgets dictated by central government and few mechanisms to cope with the extra demands placed on their staff to teach both onsite and remote lessons, headteachers and school governors had few options other than requiring teachers to increase their workloads. By way of contrast, well-resourced employers, and managers in progressive, technically sophisticated organisations in the private sector moved quickly to extend virtual working practices already in place, but we also report highly motivated employees in considerably more financially constrained not-for-profit organisations and other less lucrative sectors who reported confidence in their employers' management of the constraints.

The potential vulnerability of self-employment is well documented in our report, but among the self-employed graduates we found polarisation according to the sustainability of the demand for their knowledge and skills. Those operating in sectors traditionally characterised by erratic work opportunities and high competition for them had become more insecure and vulnerable during the pandemic, but those in traditional graduate professions and those using and developing new technology mainly reported continued, secure, and even increasing demand for their expertise. We were told by interviewees of employers 'buying in' specialist expertise rather than advertising permanent posts as demand for their services grew as restrictions were reduced and markets reopened. They predicted that that this use of contract labour would increase in the light of employers' experience of the pandemic and the unpredictability of the fluctuating economic situation.

I didn't qualify for any financial help from the government other than Universal Credit which doesn't even cover my mortgage, let alone anything else. So, I could have been in an absolutely terrible financial situation, but luckily my dad has been able to loan me money If I hadn't been in that position, then I probably would have had to sell my flat.
Self-employed Film and TV Costume Designer, female.

Much of the change in modes of work is related to the increasing use of technology across the organisational and occupational spectrum. While a far wider range of occupational groups have been forced to get to grips with online working and the use of ICT in their work, many finding it necessary to develop new skills, we also found evidence of increasing specialisation within management (for example, in relation to health and safety) and professions: for example, in organisations like schools (where we were told of some who

had appointed specialist technical staff to assist teaching staff in the use and development of new teaching methods and resources). Recent research¹⁶ has argued that increasing polarisation in 'knowledge work' between decision-makers, innovators, and highly specialised professionals and those who maintain and use the knowledge generated by the former has profound implications for future demand for graduates and policies relating to higher education in the future. The majority of the current Futuretrack respondents who have proved most resilient to the pandemic crisis, whether employed, self-employed or freelance, were already integrated into the sustainable high-end knowledge worker stratum, according to this perspective, with those who were more vulnerable in less sustainable occupations.

4.2 Graduate careers – the short-term implications

According to evidence from a survey of over 1,000 organisations by the Chartered Institute of Personnel and Development¹⁷, 80 per cent of employers did not offer the opportunity to work regularly from home before the pandemic and where they did, it applied to less than 10 per cent of their workforces. Anticipating what will happen after the crisis, this same survey revealed that around 40 per cent of employers said that they expect more than half their workforce to work regularly from home in the future. Our evidence reinforces this. Home working was reported to have had benefits for many of our respondents, enabling them to continue to work effectively while saving travel time, improving their ability to manage work and family responsibilities and achieve a healthier work-life balance. A wider range of employees than hitherto had been enabled to work from home. It had allowed them and their employers to liaise internally and organise online meetings with remote colleagues, clients, and partners more efficiently and cheaply than previously. It had facilitated the exchange of information: respondents cited examples of where online working had enabled problems to be solved and decisions reached more quickly than during 'normal' practice. Employers previously resistant to staff working from home had learned that productivity was often improved rather than reduced when they were obliged to trust their employees to work remotely, and some were reported to be already planning reductions in office space and recognising the extent to which previous work-related travel had often been unnecessary. Although there was generally enthusiasm for future 'hybrid working' between workplace and home among our respondents, there was concern that in some cases, employers' main motivation relating to future planning was cost reduction rather than staff welfare or environmentally friendly considerations. Would more jobs be lost, and the opportunities for career development reduced?

The graduates' responses also made it clear that not all work lent itself to distance working. Some types of work that required on-site technology and resources, face-to-face interaction with colleagues and others, working in specific locations, could simply not have been done from home, and much graduate-level 'knowledge work' fell into this category. To the extent that it was possible to continue exercising their knowledge and skills in restricted ways, graduates working in scientific and creative professions and those requiring advanced interpersonal and communication expertise reported that without face-to-face and collaborative working, it was not possible to deliver work of the previous quality. Creative workers spark off one another when working together; researchers share ideas and, often in

¹⁶ Brown, P. (2020) 'Some observations on the race to higher education, digital technologies and the future of work', *Journal of Education and Work* Vo.33, No.7-8, 491-99.
<https://doi.org/10.1080/13639080.2020.1852500>

¹⁷ CIPD. (2020) *Embedding new ways of working: implications for the post-pandemic workplace* London: Chartered Institute of Personnel and Development.
<https://www.cipd.co.uk/knowledge/work/trends/working-post-pandemic>

informal argument and debate, experience breakthroughs in understanding; medical professionals can diagnose and prescribe appropriate solutions more confidently when they can examine patients. Substituting face-to-face meetings between colleagues with online meetings and conferences may reduce travel costs and save time, but some respondents reported less opportunity to engage with and really get to know and debate issues with colleagues and to feeling impoverished by lack of informal work-related communication. Many graduate-level jobs, especially those in the caring professions and those where working with specific equipment and under controlled circumstances, and those where interpersonal engagement is paramount, simply cannot be done from home.

4.3 Graduate careers – the longer-term implications

During 2020, things changed. Along with everyone else in the labour market, graduates now faced lockdowns, remote working, and new ways of providing essential services. For some, what had previously been regarded as secure employment positions were suddenly at risk. Our report on the impact of the pandemic describes how these changes impinged upon the graduate workforce, affecting their economic status, general wellbeing, and their mental health. We document the beneficiaries of the pandemic and highlight the plight of those who experienced negative outcomes. But how will this evolve in the longer term? Has this been a once-in-a-lifetime experience that will fade in memory as life returns to normal, or has this irreversibly reshaped the ways in which those with high levels of education structure their careers? The answer to this question is not simple and requires us to dissect the labour market in ways that shed light on the demand for graduates and permanence or otherwise of trends that have been established over the past year.

The demand for highly qualified labour is driven by a variety of forces. Foremost among these is the impact of technological change. Fostering the development of artificial intelligence, more efficient supply chains, and new products, the ‘digital revolution’ brings about major organisational restructuring. This can lead to an increased demand for highly qualified employees who can exploit new technologies to identify profitable opportunities or find ways of making public sector services more effectively targeted and hence more efficient. But not all sectors of the economy benefit from technological progress. In the service sector, it is the demand for improved access to services and their quality that has provided many graduates with rewarding employment opportunities. This has been seen in sectors such as distribution, health and social care, hospitality, tourism, and recreation. These trends will continue in the post-pandemic period and may be accelerated by several factors, notably the worldwide drive towards carbon neutral economies, led by the technologically and economically advanced nations, by demands for improved health and social care and the so-called ‘levelling up’ agenda designed to reduce inequalities in society. But, while the demand for highly-qualified people who are literate, numerate and able to work effectively in conjunction with rapidly-developing technology looks set to continue to increase, how far will the demand for graduates – people who have been required to undertake the equivalent of at least three years’ full-time higher education – grow or remain stable?

Technology has been replacing labour in low-skilled operations, and already an increasing number of tasks previously carried out by relatively highly skilled technical and professional employees are being automated. It has been argued (in some cases backed by research evidence) that there has been increasing polarisation within graduate labour markets¹⁸. Demand remains buoyant for an elite minority of very highly qualified innovators: designers

¹⁸ Brown, P., H. Lauder and S.Y. Cheung (2020) *The Death of Human Capital?* Oxford: Oxford University Press.

and managerial strategists who create, develop, and refine knowledge. Rather than being vulnerable to replacement by technology, those in such roles are being increasingly required to work in conjunction with technology. In this analysis, the considerably larger and less autonomous group of well-qualified, technically skilled implementers and lower-level managers and disseminators involved in the day-to-day operation of the organisations, economies and societies are assumed to be more vulnerable to deskilling and displacement by technology. Those with few educational or technical skills are increasingly liable to be confined to low-level, insecure employment. In accelerating employers' use of technology to supplement and facilitate efficient human resource use and deployment, has Covid-19 amplified these trends and led to employment restructuring that will result in longer-term staff reductions of graduate labour? In sectors traditionally characterised by fluctuating demand for labour or high competition for career opportunities such as the performing arts, will the previous scale of demand return with 'the new normal' or will the technology mediated substitutes developed during the restrictions displace the more labour-intensive modes of provision of the past?

Many of the Futuretrack respondents, citing redundancies in their organisations or the experiences of younger colleagues and acquaintances in their industries, discussed how fortunate they felt to have reached the stage where they had built up experience and networks and were reasonably confident that they would be able to survive future job changes or redundancies. It was apparent from the interviews that cumulative work experience and professional networking were important elements in access to information about career development and potential job moves, across virtually the full range of industries and occupations at the career stage that these graduates had reached, but this was particularly the case in the creative industries and among those in jobs concerned with research and innovation. If the already-emerging trend of leading arts and performance organisations to produce online performances, accelerated by the pandemic restrictions, continues to develop, the likelihood is that cultural production will become increasingly polarised between larger, often international organisations and small poorly resourced local and regional ones, with reduction in employment opportunities for arts professionals. If travel and collaborative working among research and development professionals continues to be restricted once the pandemic crisis is over, innovation will proceed more slowly and the labour market for the graduates working in the relevant fields will be diminished.

The most obvious change that the pandemic has accelerated is the move towards more flexible ways of working. The rise of remote working, stimulated by lockdowns and travel restrictions, have reshaped the views of many employers previously opposed to having a more distributed workforce. Both employees and employers have benefited to some extent from the reduction in commuting, business travel expenses and the ease with which meetings could be arranged. The downside of this has been the transfer of the office to the home, with many not equipped to accommodate such changes. However, the seeds have been sown. Employer reluctance to extend homeworking has been significantly eroded as productivity has held up¹⁹ and major employers are increasingly moving to hybrid working for an increasing

¹⁹ See Colley, L. and S. Williamson (2020) 'With management resistance overcome, working from home may be here to stay', *The Conversation*, August 23 <https://theconversation.com/with-management-resistance-overcome-working-from-home-may-be-here-to-stay-144850> and *Embedding new ways of working: Implications for the post-pandemic workplace* (2020) CIPD Report, September https://www.cipd.co.uk/Images/embedding-new-ways-working-post-pandemic_tcm18-83907.pdf

proportion of their workforces²⁰. Many employers now state that they are likely to adopt hybrid arrangements, seeking to mix remote working with face-to-face contact as circumstances permit. This promises the potential for improved work/life balance for many of those in jobs that lend themselves to remote working, more often jobs that require graduate-level qualifications than those with lower educational requirements. It will bring about changes in the way communities develop, moving from the concept of 'dormitory towns' feeding workers into city offices, to distributed workplaces serving the needs of local, national and globally-connected organisations. It will impact upon the housing market, on transportation systems and on the role of the city as the hub of economic activity. These changes are not revolutionary, in that many of these trends were already in evidence pre-pandemic. But what the pandemic has done is to accelerate changes that were already beginning to be made by many organisations and demonstrate in one year the feasibility of changes that might otherwise have taken considerably longer to gain wide acceptance.

This forward view of the labour market suggests that highly qualified people will be the major beneficiaries of the more permanent impacts of the pandemic and less vulnerable to technology-generated labour market change²¹. However, the UK is not in a unique position in terms of the ways in which the demand for highly qualified labour will evolve over the next decade. Other countries, notably China and India, have massively increased their graduate labour forces, exporting highly qualified labour across the world in the case of India or capturing technological opportunities in the case of China. These trends, found also in many other countries, will place UK graduates in competitive positions, possibly forcing them to accept jobs that are not their preferred options, possibly forfeiting a part of what is termed the graduate earnings premium.

How these forces that shape the demand for graduates will play out is difficult to predict. All we can be sure of is that they exist and will grow in strength as the major global economies recover from the pandemic. What will be needed will be vision from the UK higher education sector, equipping tomorrow's graduates to be risk takers, to be innovative, simultaneously providing them with the skills and knowledge to confront the major challenges we now face. For the Futuretrack cohort of graduates, most of whom are now in their early thirties, those that are well established are likely to continue to prosper. For those who have recently joined the labour market, or who will pursue a route through higher education in the next few years, the outlook is less certain. Further long-term monitoring of recent and future graduates will be essential in providing insight into this complex interplay of forces.

²⁰ Webber, A. (2021) 'Four in five firms expect hybrid working post-lockdown' *Personnel Today*, 6 May, <https://www.personneltoday.com/hr/four-in-five-firms-expect-hybrid-working-post-lockdown/>

²¹ C.f. D. Autor (2019). *Work of the Past, Work of the Future*. National Bureau of Economic Research Working Paper 55588, C.f. D. Autor (2019). *Work of the Past, Work of the Future*. National Bureau of Economic Research Working Paper 55588, <http://www.nber.org/papers/w25588>

5. Policy Implications

The findings from the two stages of the Futuretrack longitudinal study that are summarised in this report reveal the ways in which graduates have made the transition from higher education to work, how they navigated their ways through the labour market over a ten-year period, and how they have coped with the dramatic changes brought about by a global pandemic. These findings provide pointers, indicating the need for new or revised policies designed to address not just the problems we have identified but the probable future labour market issues that graduates will face. At this stage of our research, 10-12 years after graduates completed their courses, our findings have useful insights for students, graduates and higher education professionals and organisations, but the main implications are for policymakers and employers.

We have identified five priorities areas for which we make recommendations: (i) *addressing the gender pay gap*, (ii) *facilitating flexible working arrangements*, (iii) *dealing with the impact of the Covid-19 restrictions and requirements on employee welfare*, (iv) *the need for more comprehensive and timely information about higher education outcomes*, and (v) *taking account of increasing fragmentation of jobs and employment precarity*.

(i) The gender pay gap

One of the most powerful findings from our study is that the gender pay gap in earnings for graduates in their early thirties remains unchanged since 2002. Employers, professional associations, and governmental policymakers need to undertake further concerted actions and implement procedures designed to tackle this issue. For example, annual gender pay gap reporting is currently required of all organisations with more than 250 employees. Such reporting puts a public spotlight on organisations with large gender pay gaps, especially those that employ significant numbers of graduates. This, in turn, can cause employers to think more about the reasons underlying gender pay differences and act to remedy the situation. It is important that such information is made publicly available to potential employees.

Related to this issue, we note that there is evidence that while most employers are committed to equal opportunities and non-discriminatory policies, many appear to promote and encourage formal and informal practices that discriminate against parents and those who choose to reduce hours of work to accommodate caring responsibilities. These mainly discriminate against women. During the pandemic restrictions, the impact became more apparent.

- *We recommend that prompt gender pay gap reporting should be extended to organisations with 25 or more employees and should be presented in a manner that identifies the gender pay gap within the highly qualified workforce.*

(ii) Facilitating flexible working arrangements

While the pandemic has brought about a huge upheaval in the labour market, our study shows that working from home was the single biggest change that graduates had experienced. While some reported the negative impacts of this, many employers are now more likely to respond to requests for home working from their employees. Some may require such changes, having identified the cost savings involved and the potential home working has to reduce the organisation's carbon footprint. But the introduction of this element of flexibility into the location of employment is not necessarily a 'win-win' situation for employers and employees. Face-to-face working facilitates informal consultation and greater non-verbal communication in ways that a computer screen cannot. This is important for recognition of efforts and for

promotion. To the extent that certain groups may find themselves more likely to be working remotely than others, then the potential for discrimination will exist.

- *Employers will need to develop monitoring processes and put in place rigorous procedures that will ensure fair access to promotion for all employees regardless of their working arrangements.*

(iii) Managing employee welfare beyond Covid-19

Three of our strongest findings were the impact on respondents of the changes in work modes, whether relating to workplace practices and changes, or the requirement to modify ways of working to facilitate working from home, on (i) their capacity to do their jobs effectively, (ii) the extent to which their workloads changed, and (iii) the impact of these variables on their mental health. Some employers had been well-prepared for the crisis, had policies and practices in place to adapt to the changed circumstances, including well-established flexible organisational structures and internal communication systems that facilitated efficiency. Others were unable to cope with uncertainties and did not make it easy for their staff to take account of the new constraints and requirements. As was the case for individuals, the kinds of products, markets, and levels of technological sophistication of organisations, as well as their size and complexity, varied substantially, and the potential impact of the pandemic was dependent on these variables. Different organisations will learn different lessons from their management of the pandemic experience. Analysis of the range of reported good and less successful management of the challenges faced by respondents' organisations nevertheless reveal two clear implications relevant to all employers, to enable them to move on from this current crisis and be well-prepared in the event of another challenge of similar dimensions:

- *Organisations aspiring to retain and motivate their employees need to take stock of the impact of the events of the past year on the welfare of existing staff and ensure that their career progress and employment security is suitably recognised and acknowledged – not necessarily financially.*
- *Lessons on the impact of working conditions and changing working practices on mental health need to be learned and where necessary, counselling, or shared systems of mutual support and mentoring should be established.*

(iv) The value of higher education: need for *more comprehensive and timely statistical information*

Graduate earnings have long been one of the key outcome measures used by policy makers to evaluate not just the apparent success of actions to expand higher education, but now form part of the outcome measures to evaluate individual higher education institutions. These include the availability of new and large-scale continuous sources of information, brought together in datasets such as the *Longitudinal Educational Outcomes*. We have demonstrated the importance of including information on hours worked and location in these data and we support further calls to this effect²². More importantly though, while we recognise the value of monitoring and evaluating individual financial rates of return, we advocate the *development of an effective means of recognising and monitoring the wider benefits of graduate study to individuals, communities, and society*²³. Recent calls to make progress on this issue have

²² Department for Education (2021) Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF).

²³ See, for example Brennan, J., N. Durazzi and T. Séné (2013) *Things we know and don't know about the wider benefits of higher education: a review of the recent literature*. BIS Research Paper, URN

been made by Universities UK²⁴ and within the Independent Review of the Teaching Excellence and Student Outcomes Framework²⁵.

Detailed and up-to-date analysis of earnings differences by subject of degree and the knowledge and skills acquired can provide useful indicators on the emergence of skills shortages or over supply of graduate labour. For example, aggregations of subjects such as STEM are justifiable, useful, and revealing, but disaggregation within them, and within heterogeneous subjects such as Interdisciplinary and the Biological Sciences, would provide better labour market information about the knowledge and skills sought by employers and used in graduate recruitment. This is an area where further statistical cooperation between the Department for Education, the Higher Education Statistics Agency, the Department for Work and Pensions, HM Revenue and Customs, and the Office for National Statistics could lead to significant improvements in the identification of over or under supply of specific graduate skills and knowledge. Making such detailed information available in a timely manner could help potential students with their subject choices, assist institutions with curriculum planning and provide employers with vital data for planning recruitment and pay strategies.

- *We strongly support these calls to develop indicators of the wider benefits of higher education and propose that the Office for Students should spearhead this work.*
- *Related to this, we recommend the continuation of long-term longitudinal studies of graduates and the creation of new such studies to enable further cross cohort comparisons of graduates' careers and opportunities.*

(v) The increasing fragmentation of jobs and employment precarity

Our findings illustrated the changing structure of the labour market, showing that employment precarity is not confined to low-skilled, low-paid jobs, but that it covers a significant proportion of members of the highly qualified population. The pandemic revealed the extent of their employment vulnerability and income insecurity. We cite a range of research studies that suggests that these trends will continue. The experience of the pandemic, in highlighting national and global vulnerability to unforeseeable crises, has shown how important the establishment of such safeguards is.

- *it is imperative for policymakers to develop mechanisms for protecting standards of employment and fostering income security.*

BIS/13/1244. Department for Business, Innovation and Skills, London, UK.
<http://eprints.lse.ac.uk/55427/>

²⁴ Snelling, C. and R. Fisher (2020) Protecting the value of UK degrees: reviewing progress one year on from the statement of intent. UK Standing Committee on Quality Assessment. Universities UK.

²⁵ Department for Education, *op. cit.* (footnote 22)