

# The impact of higher education for part-time students

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# **The impact of higher education for part-time students**

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## Foreword

The UK Commission for Employment and Skills is a social partnership, led by Commissioners from large and small employers, trade unions and the voluntary sector. Our mission is to raise skill levels to help drive enterprise, create more and better jobs and promote economic growth. Our strategic objectives are to:

- Provide outstanding labour market intelligence which helps businesses and people make the best choices for them;
- Work with businesses to develop the best market solutions which leverage greater investment in skills;
- Maximise the impact of employment and skills policies and employer behaviour to support jobs and growth and secure an internationally competitive skills base.

These strategic objectives are supported by a research programme that provides a robust evidence base for our insights and actions and which draws on good practice and the most innovative thinking. The research programme is underpinned by a number of core principles including the importance of: ensuring **'relevance'** to our most pressing strategic priorities; **'salience'** and effectively translating and sharing the key insights we find; **international benchmarking** and drawing insights from good practice abroad; **high quality** analysis which is leading edge, robust and action orientated; being **responsive** to immediate needs as well as taking a longer term perspective. We also work closely with key partners to ensure a **co-ordinated** approach to research.

This study, undertaken by Birkbeck, University of London and the National Institute of Economic and Social Research, seeks to examine issues concerning skills supply, focusing on the impact of higher education for part-time and full-time undergraduate students. The research consists of secondary analysis of data from the Higher Education Statistics Agency's Longitudinal Destination of Leavers from Higher Education (Longitudinal DLHE) survey. The analysis compares how graduates from part- and full-time study fare in the labour market six months and three and a half years after graduation. This is the first time such analysis has been undertaken. The analysis provides evidence to develop a deeper understanding of the role of part-time undergraduate study in the labour market at a time when the government wants to encourage more diverse and flexible higher education provision to meet the skill needs of the economy. It also helps inform the debate regarding who should pay for improving higher level skills.

Sharing the findings of our research and engaging with our audience is important to further develop the evidence on which we base our work. Evidence Reports are our chief means of reporting our detailed analytical work. Each Evidence Report is accompanied by an executive summary. All of our outputs can be accessed on the UK Commission's website at [www.ukces.org.uk](http://www.ukces.org.uk)

But these outputs are only the beginning of the process and we will be continually looking for mechanisms to share our findings, debate the issues they raise and extend their reach and impact.

We hope you find this report useful and informative. If you would like to provide any feedback or comments, or have any queries please e-mail [info@ukces.org.uk](mailto:info@ukces.org.uk), quoting the report title or series number.

**Lesley Giles**  
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## Executive Summary

### Introduction

This report discusses the findings of a study undertaken by Birkbeck, University of London and the National Institute for Economic and Social Research, commissioned by the UK Commission for Employment and Skills to examine the impact of higher education (HE) on the labour market experiences of graduates who studied part-time and full-time as undergraduates.

Recent policy developments suggest that part-time study is central to the UK's skills and employability agenda because it provides flexible study aimed at those already in the labour market. This matters because of the need to up-skill and re-skill the ageing working population. Furthermore, as the 2011 White Paper *Higher Education: Students at the heart of the system* (BIS, 2011) confirms, part-time study can further the government's wider HE policy objectives. Specifically, it has a role in providing educational opportunities throughout people's lives, in increasing social mobility, and in creating a more diverse HE sector responsive to the needs of employers, the economy, and students by giving students greater choice and enhancing their HE experience. To make part-time HE more affordable and accessible, for the first time part-time undergraduates in England will be eligible for student loans to cover the costs of their tuition fees. Consequently, twice as many – around a third- of part-time undergraduates will qualify for government-funded financial support from 2012/13.

Little is known about the extent to which part-time undergraduate study enhances employability, earnings, and labour market progression, unlike the much larger body of research on full-time undergraduates. To help fill some of the large gaps in our knowledge, this study assesses the impact of part-time study on the labour market experiences of graduates and compares them with those who studied full-time as undergraduates.

The study analyses the Higher Education Statistics Agency's data from the Longitudinal Destination of Leavers from Higher Education survey which follows up both full and part-time undergraduates six months and three and a half years after graduation.

## **The characteristics of part-time undergraduates**

The part-time student undergraduate population is heterogeneous and are very different from their full-time counterparts.

- The majority are older and women who are employed full-time and have family commitments.
- Most do not study for a bachelor's degree but take vocationally orientated and professional qualifications.
- Unlike full-time undergraduates who typically enter HE with a Level 3 qualification, the part-time HE population is polarised in terms of their entry qualifications. A high proportion have prior experience of higher education, already hold a Bachelor's degree, and are re-skilling, often with financial support from their employer. At the opposite end of the spectrum, a substantial minority have no or low level entry qualifications. They are up-skilling and taking advantage of 'second chance' learning opportunities, which they pay for themselves or sometimes with help from the limited government-funded financial support currently available.
- However, irrespective of whether part-time undergraduates are re-skilling or up-skilling most want a higher education qualification to get ahead and to meet their career ambitions.

Our multivariate analysis of the Longitudinal DLHE data acknowledges these important differences in student characteristics and attempts to control for them.

In examining the impact of part- and full-time study, we emphasise labour market experiences three and a half years rather than six months after graduation. This is because research suggests that it takes several years for individuals to reap the benefits of lifelong learning qualifications. Therefore, this study may not have captured the full employment and wage effects of part-time higher education, or of full-time higher education.

## **Key messages**

- There were significant employment advantages to those who improve their skills by upgrading their current qualifications from below a Level 3 through part-time study relative to full-time study. This was also true for those who obtain new skills but without a qualification upgrade.

- Individuals benefit financially from the skills acquired through part-time and full-time higher education study. The skills they acquire also benefit employers and the wider economy.
- The contribution of graduates from part-time study to economic prosperity, particularly in relation to earnings, exceeds that of graduates from full-time study in the relatively short period of time under consideration – up to three and a half years after students graduated.
- The Westminster coalition government's decision to extend student loans to part-time students could potentially open up more opportunities for employees to enter part-time higher education.

## **Key findings**

### **Employment effects of part-time study**

- The same proportion of graduates from both part- and full-time study - 88% - is in paid employment three and a half years after graduating from higher education although twice as many part-time as full-time graduates work part-time (14% compared with 6%).
- The same proportion, just 3%, of graduates from part- and full-time study is unemployed three and a half years after graduation. However, part-time study is less likely than full-time study to assist unemployed job seekers back into work.
- The majority of graduates, irrespective of their mode of study while undergraduates are employed in the top three occupation categories: Managers and Senior Officials, Professional occupations and Associate Professional and Technical occupations. 77% of employed graduates from part-time study and 73% from full-time study work in these occupations three and a half years after graduation.
- A higher proportion of graduates from part- than full-time study are employed in the public rather than the private sector, namely in Public Administration, Education and Health and Social Work (59% compared with 44%).
- A higher proportion of graduates from part- than full-time study have permanent jobs three and a half years after leaving higher education (87% compared with 79%).
- The likelihood of graduates of part- and full-time study being employed varies by their characteristics.

- Graduates whose tuition fees were paid mainly by central government, typically to study subjects allied to medicine, are more likely to be employed three and a half years after graduation than graduates who receive no help with their fees. Graduates who received financial help with their tuition fees from their Local Education Authority (LEA) – some of the poorest undergraduates - are less likely to be employed. Employer support with fees is more important for graduates of part- than full-time six months after graduation but not three and a half years after graduation.
- Older graduates are less likely to be employed than younger graduates three and a half years after graduation. However, there are no differences in the likelihood of graduates from part- and full-time study being employed according to their age or motivations to study.
- The level of entry qualifications at the beginning of study has no impact on the overall probability of graduates from part-time and from full-time study being employed. However, graduates from part-time study with entry qualifications of Level 4 or 5 have higher employment rates three and a half years after graduation than similar graduates from full-time study. Also graduates who enter part-time HE with a qualification below Level 3 also are more likely to be employed than those who enter full-time HE with similar qualifications.

### **Wage effects of part-time study**

- Three and a half years after leaving HE, graduates from part-time study in full-time employment earn more on average than similar graduates from full-time study. Some 84% of part-time graduates earn more than £20,000 compared with 73% of full-time graduates.
- The salaries of graduates from part-time study grow at a slower pace compared with their full-time peers. They are less likely to see their salaries increase and are more likely to see their salaries stagnate between six months and three and a half years after graduation. During this period, 78% of graduates from part-time study see their salaries rise taking them up at least one £5,000 salary band, 16% experience no change while 6% see a drop in their salaries. The equivalent proportions for graduates of full-time study are 88%, 8% and 2%.
- Both pay levels and the chances of a pay rise between six months and three and a half years after graduation vary by graduates' characteristics.

- Three and a half years after graduation, there are no differences in the pay levels of graduates by whether or not they received employer support with their tuition fees. However, graduates from part-time study awarded LEA financial help earn more than similar graduates from full-time study. Yet, part-time graduates obtaining fee support from other government sources have lower earnings than their full-time counterparts.
- Older graduates are more likely to be higher earners than younger graduates three and a half years after graduation, especially older part-time graduates.
- Graduates of part-time study who received LEA financial support towards their tuition fees, and those who obtained similar help from their employer, are more likely to get a pay rise that moved them up a pay band between six months and three and a half years after graduation than those who had studied full-time.
- Graduates aged 30 or more who had studied part-time are less likely to experience a salary increase three and a half years after graduation than younger graduates.
- Graduates' qualifications on entry to university have no impact on the probability of salary growth three and a half years after graduation, indicating no difference in the propensity to move up the pay distribution for graduates who re-skilled or up-skilled.

### **Implications for policy**

- Part-time HE study plays a significant part in raising, updating, and improving the skills levels of people already in employment and ensuring they possess the skills and qualifications required by employers, especially in the public sector. It enhances the employment prospects for students with high level entry qualifications who are mainly re-skilling, and those with low-level entry qualifications who primarily are up-skilling.
- Part-time study allows for more flexible and diverse HE provision and for employees to combine studying with employment, but there is no evidence that it is particularly beneficial as an alternative to full-time study for young people.
- Part-time study helps to widen HE participation and to increase the social mobility of graduates of part-time study who entered higher education with low-level skills, more so than similar graduates of full-time study. However, older graduates who study part-time fare worse (in terms of employment prospects and pay progression) than older graduates from full-time study, suggesting that part-time study does not reap rewards relative to full-time study, for this group.

- The study confirmed the financial benefits accruing from part-time HE study and the positive impact of making it more affordable via government-funded financial support. The findings endorse the Westminster coalition government's strategy of improving access to, and the level of, financial support for part-time study, especially for low-income individuals with low-level qualifications wishing to up-skill.
- Student loan policies are predicated on the principle that those who benefit from higher education should contribute towards its costs, and the assumption that participants of higher education will reap some private returns in terms of their employment prospects and higher wages on graduation.
- The findings suggest that government-funded student loans for part-time students from 2012/13 are justified in terms of: the private and public returns to such an investment including the higher employment and pay progression rates of part-time graduates without a Level 3 qualification compared with similar full-time peers; the increased productivity of low-income employees as measured by the higher pay levels and pay progression of those in receipt of LEA awards; and on the grounds of equity by increasing social mobility both for those entering part-time study with low-level qualifications and for those with low-incomes in receipt of government-funded LEA awards.
- The study's findings also help validate the government's strategy, in a period of public expenditure constraints, of restricting student loans to the most disadvantaged in the labour market, those with the least human capital, without prior experience of higher education, and wanting to up-skill.
- The higher pay levels of graduates from part-time study suggest that they are likely to pay back their student loans at a faster rate than graduates from full-time study and to pay higher interest rates. Both are to the benefit of the Exchequer and make loans for part-timers potentially cheaper than those for graduates of full-time study.

# 1 Introduction

## 1.1 Background

In 2007/08, nearly two out of every five UK undergraduates, around half a million students, were studying part-time (Callender *et al.* 2010b). Until recently, Higher Education (HE) policy concerns have tended to focus on those who enter HE straight from school or college and study on a full-time basis. As recognised in the 2011 White Paper *Higher Education: Students at the Heart of the System* (Department for Business, Innovation, and Skills, 2011) and as outlined in the UK Commission's most recent *Ambition 2020* report (UKCES, 2010), part-time study is central to meeting the skill needs of the economy. Yet, we know little about the impact of part-time undergraduate study. This study aims to help fill that gap in our knowledge by comparing the labour market experiences of graduates from part-time and full-time study and the implications for policy, using data from the Longitudinal Destination of Leavers from Higher Education survey.

Throughout the report we have adopted the Higher Education Statistics Agency (HESA) definition of part-time higher education students, which are those who do not meet the HESA definition of full-time.<sup>1</sup> Thus part-time students are those who are not normally required to attend a higher education institution for at least 21 hours per week for 24 weeks per year of study. This definition includes students on block release from their places of employment and those studying during the evenings.

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<sup>1</sup> The HESA definition of full-time students is those who are normally required to attend a higher education institution for at least 21 hours per week over at least 24 weeks per year of study, or who are on thick or thin sandwich courses, or are on a study-related year away from their institution.



The analysis in this study covers the whole of the UK, but the implications for policy are discussed predominantly in relation to the Westminster coalition government's policy. Higher education policy within the UK is devolved and there are differences in the emphasis of policies in England, Wales, Scotland and Northern Ireland. Among all countries in the UK, part-time study plays a significant role in lifelong learning and in raising, updating and improving the skills of those already employed. It is important too for broadening access to HE and creating greater social mobility, all of which enhance social justice. However, until very recently, government, especially the Westminster government, has shown limited interest in part-time study and part-time students. This is manifest in the little reference to part-timers in the Labour government's landmark 2003 White Paper *The Future of Higher Education* (DfES, 2003a) and the resulting 2004 Higher Education Act, which radically changed student funding for full-time undergraduates.

Of late, concern about part-time students and part-time HE has shifted, prompted by the predicted demographic downturn in school leaver entrants and the economic imperatives of up-skilling and re-skilling the workforce. For instance, Universities UK - the voice of university Vice-Chancellors - predict that by 2027 part-time undergraduate enrolments will be increasing at a much faster rate than full-time enrolments, and the mix between full and part-time students could shift substantially towards part-time, primarily because of the demographic downturn in 18 year old school leavers (Ramsden and Brown, 2008).

The economic downturn and severe constraints on HE expenditure have meant that part-time provision has become more prominent in the discourse on HE, with an even greater emphasis on the role of HE in meeting the high-level skills needed for a competitive economy and economic recovery.

The importance of part-time study was acknowledged in the Labour administration's *Higher Ambition: The future of universities in a knowledge economy* (Department for Business, Innovation and Skills, 2009). However, part-time provision has come to the forefront of HE policy since the Westminster coalition government came into power in 2010. Building on their November 2010 document *Skills for Sustainable Growth* (BIS, 2010a), which reiterated the importance of skills to our economic future and the improvement of skills to build sustainable growth, the coalition's 2011 White Paper *Higher Education: Students at the Heart of the System* (BIS, 2011) recognises the contribution of part-time study in meeting its wider higher education policy objectives and its skills strategy.

The White Paper aims to put HE on a financially sustainable footing, to improve the student experience, and to increase social mobility. It acknowledges the role part-time study can play in providing educational opportunities throughout people's lives, in creating a more diverse HE sector responsive to the needs of employers, the economy, and students by giving students greater choice and enhancing their HE experience, and in increasing social mobility. The government wants to make part-time higher education more affordable by providing more generous support. For the first time, part-time students will be eligible for student loans to cover the costs of their tuition fees.

It is impossible, as yet, to assess the impact of the reforms of student funding outlined in the White Paper on HE participation and the nature of part-time provision. It is possible that in the future part-time study will grow and become a more attractive alternative to full-time study. Some suggest that as a result of higher tuition fees from 2012/13, more school leavers may consider the option of working and studying part-time as a way to finance their studies. An influx of younger students would radically alter the current characteristics of the part-time undergraduate student population to which we now turn.

## **1.2 Key characteristics of the current part-time undergraduate student population and trends in enrolment**

Here we present data on the current part-time undergraduate UK student population to help contextualise the study. The key characteristics of the students included in the Longitudinal Destination of Leavers from Higher Education survey are outlined later in the chapter. Part-time undergraduates are a heterogeneous group and are very different from their full-time counterparts.

- The vast majority are over the age of 25 (79% compared with 13% of full-timers) and female (64% compared with 56% of full-timers) (Callender *et al*, 2010b).
- Around 80% are employed, mostly in full-time jobs and in the public sector, while around a half of full-time undergraduates work at some stage during the academic year (Johnson *et al*, 2009).
- Two-thirds of part time students have family commitments and over two in five have children (Callender *et al*, 2010a) whereas the majority of full-time students are single and childless.
- While the majority of full-time undergraduates (89%) study for a first degree only a third of part-timers do, with most (56%) aiming for other qualifications including professional qualifications, HE certificates, and institutional undergraduate credits.
- Part-time students are also more likely to be studying subjects allied to medicine and education than are full-time students and to be concentrated in post-1992 universities.
- Part-time students are both more likely to have higher levels of prior qualification (Level 4 or above) or to have lower levels (Level 2) than full time students. This reflects a polarization in the part time HE population between those who are re-skilling and those who are up-skilling, for whom part time study may be seen to offer a 'second chance' at learning.

However despite the drivers for future increases in part time study identified above, historically part-time enrolments in England have been declining, once those studying at the Open University are excluded. Between 2002/03 and 2008/09 part-time undergraduate enrolments outside of the Open University fell by 8%.<sup>2</sup> In contrast, undergraduate entrants at the Open University grew by 25% between 2004/05 and 2008/09. These figures do not capture the full effects of various policies which are likely to lead to further declines in undergraduate enrolments such as the withdrawal of funding for students whose qualification aim is lower or equivalent than their existing qualifications (ELQ).

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<sup>2</sup> Unpublished data supplied in a personal communication by HEFCE. It is difficult to follow trends at the Open University for earlier years because of complexities in the way in which the data are reported.

### **1.3 Existing research on the impact of lifelong learning and part-time study**

This study focuses on employment outcomes following part-time study. Most part-time students are employed full-time and their prime motivations for study are to improve their careers (Callender *et al*, 2010a). Most are participating in lifelong learning, with some upgrading their existing qualifications while others take qualifications at the same level to the ones they already possess. Lifelong learning requires a system of learning which gives everyone opportunities to learn at all levels, as and when they need to learn rather than because they have reached a certain age. A recent inquiry into lifelong learning defined it as:

Lifelong learning includes people of all ages learning in a variety of contexts – in educational institutions, at work, at home and through leisure activities. It focuses mainly on adults returning to organised learning rather than on the initial period of education or on incidental learning. (Schuller and Watson, 2009, p 10).

Thus lifelong learning opportunities need to cater for: people with university degrees and those without any qualifications; those in highly skilled jobs wanting professional development, and people in lower-skilled and unskilled jobs, or without a job; those experiencing difficulties reading and writing; and people who have retired or just want to learn something new. This is a very different way of thinking about post-16 education and training, which in the past was restricted to formal learning in specialised educational institutions, aimed mostly at school leavers and young people at the start of their working life.

In line with the policy concerns that have concentrated on full-time students, most of the literature about the impact of HE study also focuses on returns for young full-time students. There is a growing literature on returns to lifelong learning, see for example Dorsett *et al*, (2010), but little with a focus on part-time HE study.

In many countries, government policy has been to encourage lifelong learning as a means of increasing productivity and achieving progression in the labour market. However, a number of studies suggest that lifelong learning is not as beneficial as conventional learning would have been to those who undertake it. In the United States Light (1995) reports a range of penalties to interrupted education. Holmlund et al. (2008) come to similar conclusions for Sweden, although they also suggest that the penalty is eroded with the passage of time. By contrast, Ferrer & Menendez (2009) suggest that, in Canada, graduates who delay their education receive a premium relative to those who do not.

Looking at the United Kingdom, Garrett *et al.* (2010) discuss the benefits of lifelong learning to individuals from the acquisition of vocational qualifications and higher-level skills. They suggest that for those gaining higher level qualifications later in life, via higher education, the time over which enhanced earnings are received is shorter but that mature students still gain sizeable returns to higher education.

Mason and Hopkin (2011) conducted a survey of 294 of the employers of the part-time students surveyed by Callender *et al.*, (2010a). They investigated the extent and nature of employer support for part-time HE study and the perceived advantages and disadvantages of this kind of study for the organisations concerned. They found that employer support for part-time HE study was rarely unconditional. A large majority of employers stipulated that students' courses had to be work-related and more than half of them reported that employees were obliged to repay their fees if they left their employer before a certain time period had lapsed. Thus, although study may improve productivity in the current role in the existing workplace, the latter condition may constrain labour market mobility in the short-term. They observed:

Employers' reasons for supporting part-time HE study are closely linked to organisational performance. For example, a large majority of supportive employers believe that their organisations benefit from the employees concerned becoming more knowledgeable and better equipped with job-related skills. Among other benefits, some employers also note positive contributions to productivity and efficiency, increased staff retention and improved staff attitudes and career progression. (p 6)

The financial costs of course fees and the time off work that employees need for study or exams were considered the main disadvantages of supporting part-time study. However, the perceived benefits seemed to outweigh disadvantages for many employers. Not all surveyed employers supported part-time students at the time of the survey, but seven out of ten employers who were not supporting part-time students at the time of the survey, anticipated doing so in the future.

Particularly relevant for the current study and our analysis of the employment and wage effects of part-time study, are Mason and Hopkin's (2011 p 7) findings about the outcomes of part-time HE study.

The survey also found evidence that part-time study often leads to more demanding tasks and responsibilities and to higher-paying jobs for the individuals concerned although employers were more likely to report these developments as happening 'quite often' rather than 'very often'. In addition, a sizeable minority of employers (about one in four) conceded that employees could be disappointed by the lack of opportunities to make use of their new skills and knowledge in their current jobs. A majority of employers reported that part-time study was frequently taken into account in staff appraisals but study achievements rarely lead automatically to pay increases. To some extent these mixed outcomes reflected the predominance of public sector employers with rigid salary structures in the sample whereas private sector employers tended to be more flexible on the question of whether gaining qualifications through part-time study could lead to pay increases. (p 7)

In addition, they found that just under two thirds of employers of Higher National students, 60% of those employing first degree students and 52% of those employing Foundation degree students agreed, strongly or to some extent, with a statement that: *"[Holders of HE qualifications] who gain their qualifications by studying part-time while in employment tend to have superior skills and knowledge compared to new graduates or those who gain their qualifications on full-time courses"* Only 9-16% of employers disagreed with the statement. In other words, when employers assess the cost-effectiveness of supporting existing employees to gain further qualifications versus external recruitment, many employers place high value on the job- and establishment-specific experience already possessed by existing employees as well as the new skills and knowledge they are expected to gain through part-time HE study.

Blandon *et al.* (2010) demonstrate the financial benefits of lifelong learning. Specifically, they show 20% higher earnings for men and women 10 years after gaining a lifelong learning qualification. However, they found that it can take five years for men and four years for women to reap these financial benefits. If this is the case, some of the benefits of part-time study explored in the current study may not be picked up because the Longitudinal DLHE survey takes place only three and a half years after graduation.

Dorsett *et al.* (2010) distinguish the benefits of lifelong learning for those who upgrade their qualification levels and those who do not. For men who engage in lifelong learning without upgrading their qualification levels there is a wage effect but no employment effect. However, for those upgrading their qualification level there is both a wage and employment effect. These findings apply across all ages and include both vocational and academic qualifications.

By contrast, Egerton & Parry (2001) report substantial penalties for late learners in the UK. Jenkins *et al.* (2002) found that wage growth for people who underwent lifelong learning was generally not significantly faster over a ten-year period than for those who did not, with the implication that the former suffered a wage penalty compared to those who had obtained their qualifications without a break in their education. Purcell *et al.* (2007) provide case studies which illustrate the difficulty that mature graduates have had in finding “appropriate” employment.

Thus the evidence of the impact of lifelong learning is mixed and in relation to part-time HE study, extremely limited and is worthy of further study.

#### **1.4 Government policy objectives regarding part-time study and part-time students in England**

The White Paper, *Higher Education: Students at the Heart of the System*, (BIS, 2011), sets out the Westminster coalition government’s thinking about the role of part-time undergraduate study. This, and various speeches and announcements by key Ministers about HE, indicate that the government sees HE playing a crucial role in providing the high level skills required for our knowledge economy. Moreover, they believe the HE sector’s contribution to economic growth should be commensurate with its potential to stimulate growth and recovery (Cable, 5 April 2011).

Arguably, the Westminster coalition government's HE policy objectives including those related to part-time provision, can only be understood within a broader coalition policy agenda: their desire to create a market or quasi-market in HE. The main principles driving their policies are putting the consumer at the heart of decision making through giving them more choice by encouraging more competition between education providers. Consequently, user choice and provider competition are central to their reforms of HE. They want consumer demand, in the form of student choice, alongside the skill needs of the economy and employers, to determine what universities offer. Their policies aim to provide greater choice for students by creating a more diverse HE sector and allowing new providers including private universities and Further Education (FE) Colleges to enter the market, and to compete by driving up teaching quality and driving down price through efficiency gains. The government also want student choice enhanced through a greater variety in the range and nature of provision, including greater opportunities to study part-time.

The significance of part-time study in helping to meet the coalition government's policy objectives will now be discussed in more depth. It is these policy concerns that have informed our analysis of the Higher Education Statistics Agency's data from the Longitudinal Destination of Leavers from Higher Education (Longitudinal DLHE) survey. The survey follows up undergraduates six months and three and a half years after graduation, and which forms the basis of this research study.

The key policy areas, which have dominated debate in recent years, are:

- Re-skilling and up-skilling the current workforce – including the objectives of
  - Creating more flexible and diverse HE provision
  - Improving social mobility
- Who should pay for improving higher level skills – including the objectives of
  - Increasing individual investment, enabled by more government-funded student financial support
  - Encouraging more employer funded support for higher education provision



These policy concerns are inter-related. For instance, supplying more flexible and diverse HE provision, financial support and encouraging more employer support are all means to up-skilling the workforce and improving social mobility. However, the key, and most radical, policy lever for creating a market in HE and for achieving the Westminster government's policy objectives listed above is the proposed reform of student finances and financial support, including new financial assistance for part-time study. Arguably, the current system of student finances and HE funding arrangements have dampened both the supply of, and demand for, part-time study and part-time students and hence hampered the skills agenda (Callender *et al*, 2010b). The planned funding reforms have the potential to increase both the supply and demand, and hence meet the government's broader objectives. It is for these reasons that issues concerning who pays for up-skilling and re-skilling the workforce is central to this study and our analysis.

#### **1.4.1 Re-skilling and up-skilling the workforce**

In 2008, 31% of the workforce had a Level 4 qualification or above placing the UK in 12<sup>th</sup> position in international rankings (UKCES, 2010). To improve the UK's competitiveness and its economic strength, this proportion needs to increase and the skill levels of the UK workforce raised. So as far as policy makers are concerned, along with full-time HE study, part-time HE study has the potential to play a significant part in raising, updating, and improving the skills levels of people already in employment and ensuring they possess the skills and qualifications required by employers. Part-time study can help to fill skill gaps arising from mismatches between the skills of the existing workforce and the skills necessary to meet business needs. In particular, combining prior work experience and part-time HE study can contribute to an increase in the supply of highly-educated people with the types of 'employability skills' that are widely sought by employers. A further attraction of this mode of skills development is that it minimises absence from work, with individuals investing their own time in study which is work-related (Mason and Hopkin, 2011).

A recent study of over 4,000 part-time undergraduates taking a bachelor's degree, foundation degree and higher nationals (Callender *et al.* 2010a) highlighted that almost 90% of the students surveyed were in employment, mostly full-time, and a similar percentage reported that their study was related to their career aims. Some of these students were upgrading the qualifications they already had, others were not upgrading their qualification levels but were learning new skills needed for their current job or to improve their employment prospects. Furthermore, as *Ambition 2020* notes:

'It is not only a matter of upskilling but ensuring the skills acquired bring real, sustainable benefits to the individuals concerned. This means encouraging the acquisition of those skills that are most in demand that generate the most value to the individual, to their employer and to the economy and society as a whole. Skill acquisition which does not enhance employability, earnings, labour market progression or which does not bring other economic and social returns, is a waste of public and private resources.' (UKCES, 2010 p.109)

Callender *et al* (2010a) found that the initial factors triggering part-time students' decision to study, influencing their choice of course, and shaping their aspirations were primarily instrumental. They were employment and career driven. This was manifest in their desire for a higher education qualification to get ahead and to meet their career ambitions, and to develop new or existing skills and better opportunities in the future. These reasons for studying reflect findings in earlier studies on part-time undergraduates (Callender *et al*, 2006; Yorke *et al*, 2008).

Moreover, well over a half of the students surveyed by Callender *et al* (2010a) had clear career ambitions and well-reasoned long-term career plans – they knew what they wanted to do, especially students who were re-skilling and not upgrading their qualification levels and who already had some experience of, or exposure to, higher education. For the vast majority of students, both their decision to study (89%) and choice of subject (92%) were firmly linked to these career aims. For a sizable minority (27%), their ideas about their careers had crystallised as a direct result of taking their course, especially amongst those nearing the end of their course and among 'non-traditional' students who were not employed, entered higher education with low-level qualifications, and came from low-income households. However, for around a half of those students not taking vocational qualifications or studying education, their courses were not always directly related to their current employment or occupation. This suggests that they were using their studies as a springboard to realise their ambitions in a different job or area of work.

## **Flexible and diverse HE provision**

The new HE White Paper (BIS, 2011) outlines the Westminster coalition's desire for more flexible and diverse HE provision and models of HE learning. This includes part-time and workplace-based courses to help stimulate an HE market, broaden students' HE choices, and to meet the skill needs of employers. This greater flexibility of study could help those who have previously found it difficult to access HE to improve their skills and to fit their studies around their existing domestic and work commitments. It could also help employers to address the high level skill needs of their employees.

Part-time courses are delivered in very different ways (face-to-face, mixed media, online), in various environments (campus-based, home-based, and work-based) and for a number of different learning outcomes (course credits, certificates, diplomas, foundation degrees, honour degrees, etc). As we have seen, the majority of part-time HE undergraduates study for vocational reasons and aim for vocational and professional undergraduate qualifications rather than a bachelor's degree (Callender *et al.* 2010b).

The reasons part-time students give for studying part-time as against full-time are both financial and pragmatic. They cannot afford to give up their job to study full-time (80%). In addition, part-time study offers them greater flexibility (83%) and they can fit their studies around their existing work (79%) and domestic commitments (54%) (Callender *et al.*, 2010a). For many part-time students, the choice is not between part-time or full-time study: it is part-time study or nothing at all (Callender *et al.*, 2006).

Research on potential applicants to HE, has found a real interest in part-time HE study amongst working adults (Pollard *et al.*, 2008). HE is seen as a way to develop in a career, earn more money or to change work direction. Working adults have a preference for part-time study delivered in the evenings and at weekends, and to be provided locally, as this allows them to balance work and family commitments with study. They also have a preference for face-to-face provision rather than distance or work-based learning, and veer towards vocational rather than academic courses. Convenience is the key for this group.

Although part-time study is currently undertaken predominantly by mature students and those in employment, the Westminster coalition government has recently commissioned research to explore part-time undergraduate study amongst younger people as an alternative to full-time study.<sup>3</sup> Data from 2007 show that 92% of 16/17 year olds who said they are very likely or fairly likely to apply to HE, said they prefer to study full-time rather than part-time (Bates *et al*, 2010). However, part-time study is more likely to be favoured by those from less advantaged social backgrounds, by young people who are the most averse to debt, and by those who do not see HE in terms of its social experience (Bates *et al*, 2010). The research suggests that awareness and understanding of part-time study is low among young people, and that it tends to be regarded as more appropriate for mature students and would offer fewer opportunities for socialising. The study was undertaken in 2007 and today, given the forthcoming changes in student funding (discussed below), the perceived cost savings of studying part-time may play a bigger role in students' planning. Part-time study could also help reduce the overall costs of HE study both for students and the government, as part-time students will qualify for financial support with their tuition fees but not with their living costs, unlike full-timers who are eligible for help with both.

### **Social mobility and widening participation**

The Westminster coalition government are committed to improving social mobility and opening up HE to improve people's life chances and earnings (Cabinet Office, 2010). According to the HE White Paper, 'For any given level of skill and ambition, regardless of an individual's background, everyone should have a fair chance of getting the job they want or reaching a higher income bracket' (BIS,2011 para 5.2 p. 54). The government is concerned about fairness and they want to see universities playing a significant role in providing opportunities for different types of people to study in a wider range of ways than in the past to ensure universities 'have access the very best pools of talent' (Willetts, 2011a). This policy objective is motivated by considerations of equity, as well as economic reasoning: widening participation in HE is necessary to meet rising skill needs and to maintain global competitiveness.

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<sup>3</sup> The Department for Business, Innovation, and Skills have recently commissioned research on - The Feasibility of Increasing the Numbers of Young People in Higher Education Studying Part-Time

Specifically, the government wants universities to help reduce the social class gap in HE participation and particularly want them to promote 'fairer access' (BIS, 2011, para 5.3 p 54). They seek to improve the access of those from poorer backgrounds to the more selective, research-intensive universities because graduates from such universities populate the top of the leading professions and the best paid jobs (Willetts, 2011a).

Part-time undergraduate study has a role in furthering the government's ambitions of increasing social mobility and widening HE participation for non-traditional students. It provides second chance educational opportunities to those who left school with low or no qualifications. Currently, at least 25% of part-time students aiming for an undergraduate qualification in England have a qualification below Level 3 or equivalent, or no qualifications at all. This rises to 44% for those taking a Higher National qualification and stands at 35% for those aiming for a Foundation degree, and 21% for those studying for a First degree (Callender *et al*, 2010b).

Research indicates there is a large pool of untapped talent in the workforce, many of whom could benefit from higher education. Around four million adults without a Level 4 qualification would actively consider going to university if it was more accessible and they could be provided with financial support (Pollard *et al*, 2008). A National Audit Office (2008) report specifically called for more part-time undergraduate courses to facilitate the widening participation agenda. While the more recent Cabinet Office Report *Opening Doors, Breaking Barriers: A Strategy for Social Mobility* (p48) argued:

With a track record of reaching non- traditional learners, higher education programmes in further education colleges can be an attractive option for part-time and mature learners and for those following work-related vocational programmes, foundation degree programmes and professional awards.

The government's strategy for increasing social mobility in relation to HE is couched primarily in terms of the facilitative role of student financial support and the changes to provision (Cabinet Office, 2011; Willetts, 2011a), to which we now turn.

### 1.4.2 Who should pay for HE?

The question of who should pay for HE and for improving skill levels has dominated the HE policy agenda in recent years. This is not a new issue. It was raised by the 1963 Robbins Report, the 1997 Dearing Report, was central to the 2003 HE White Paper *The Future of Higher Education* and is at the core of the new HE 2011 White Paper. Nor is it a question restricted to the UK system of HE but affects all HE systems globally. However, in England this issue has become more acute with the constraints on public expenditure.

The central idea informing this debate is that those who benefit from HE should contribute towards its costs. A key beneficiary is the student, who tends to earn higher wages on graduation and is less likely to experience unemployment, as well as gaining non-financial benefits. Another beneficiary is the employer, who profits from the skills of graduates. But there are also benefits of HE that accrue to society or the public in general. Thus, there are both private and public benefits to HE.

Next, is the question about the balance of private and public contributions towards the costs of HE and what proportion of these costs should be borne by:

- students and/or their families;
- employers; and
- the government or taxpayer.

Since 1990, all the reforms to HE student funding in England have adopted a 'cost-sharing agenda' (Johnstone and Marcucci 2010). They have attempted both to reduce public expenditure and to shift the costs of HE away from government and taxpayers so that more of these costs are borne by students and /or their parents.

The recent Independent Review of Higher Education Funding and Student Finance, headed up by Lord Browne, similarly argued that to create a sustainable solution to HE funding, the balance of private and public contributions needed to change and the HE sector had to become less reliant on public funding (Independent Review of Higher Education Funding and Student Finance 2010 p.23). Browne recommended the withdrawal of most government funding for teaching undergraduate courses and the replacement of this lost income with higher tuition fees paid for by students through government-subsidised income contingent loans. The government have accepted the principles underpinning the Brown Review and these proposals, and have capped full-time tuition fees at £9,000 per year from 2012/13.

These reforms should reduce public expenditure and public sector borrowing in the longer term, and may increase the revenues of some universities. By withdrawing most of universities' teaching grants and transferring this money to student loans, public expenditure should fall in the long term. This is because only the government subsidy on student loans will count as public expenditure (although the government still needs money to make these loans). However, as the HE White Paper recognises (BIS, 2011, para 1.11, p 16), it is unclear what the future level of these government subsidies will be, given the uncertainties about tuition fee levels and the impact of the White Paper's proposals on these. Therefore, the extent of reductions in public expenditure and public sector debt are unknown.

In addition, these reforms aim to promote a market in higher education. As David Willetts (2011b p.17), the Universities and Science Minister has argued, 'If the taxpayer contributions were to shift substantially away from upfront institutional teaching grants towards loans put in the hands of students, then the system could finally become truly responsive' [to student choice]. The new student funding arrangements, particularly student loans for tuition fees, therefore are considered essential to the creation of an HE market and for improving teaching quality (Willetts, 2011b). The loans will act as a voucher that students can redeem at the educational provider of their choice.

### **The role of financial support in promoting part-time HE participation**

The awarding of financial assistance to students is based on microeconomic principles (Leslie & Brinkman, 1988). Grants serve to lower the net price paid by the student, thus increasing the likelihood that s/he will go to university, or stay enrolled once there. However, higher education participation is also subject to income and other social and cultural factors, as well as price elasticity. Research has shown that students from lower-income households are more sensitive to tuition price increases than are students from wealthier households (Mundel, 2008). Thus, the ability of grants and tuition fee subsidies to affect the enrolment of higher-income students is different from that of their less well-off peers.

There is plenty of evidence that liquidity constraints prevent people, especially those from low-income households, from engaging in HE study, and that inadequate financial support depresses their HE participation (Mundel, 2008; Long, 2008; Dearden *et al*, 2010.) There is less robust evidence in relation to part-time study only because it has not been the focus of research and presents major methodological challenges. However, as discussed above, more adults would consider going to university if provided with financial support (Pollard *et al*, 2008), while the majority of part-time students choose part-time study because they cannot afford to give up their jobs and study full-time (Callender *et al*, 2010a). The 2007/08 Student Income and Expenditure Survey shows that of the 30% of part-time students who say their decisions about HE study is affected by the student financial support available – the vast majority (70%) would not have studied without funding, while for a sizable minority (45%) it affected their decision whether to study full or part-time (Johnson *et al*, 2009).



The HE White Paper (BIS, 2011) and earlier student funding reforms, recognise these liquidity constraints and have sought to make HE more affordable, particularly for those from lower income backgrounds to encourage social mobility. It also aims to make student loan repayments more progressive so low earning graduates are more heavily subsidised by the state than higher earning graduates. In this way limited resources are concentrated on those most in need of financial support and on graduates who do not reap high levels of financial returns from HE study. In addition, eligibility to undergraduate student financial support will continue to be restricted to those who do not already have an HE qualification or Level 4 qualification. Due to the coalition government's limited resources, its student aid policies prioritise individuals who are up-skilling rather than those who are re-skilling or want a career change. It believes that those wishing to re-skill or wanting a career change should pay for their education and training themselves or that their employers should be responsible for these costs.

### **Current government-funded financial support for part-time undergraduates and part-time provision**

Currently, the higher education funding system in England favours full-time undergraduates and full-time undergraduate provision over part-time undergraduates and part-time undergraduate study, which in turn, has contributed to a limited supply of part-time provision and a dampening of demand for part-time study (Callender *et al*, 2010b). This is because to date, government funding policies have assumed that because most part-time undergraduates are in paid work, they can afford to pay their tuition fees upfront and/or that their employers will pay for their studies. As we will see, this is not the case for the majority of working students and particularly for those from low-income backgrounds and with low levels of qualifications who want to up-skill. This section will explore the current provision for part-time students, including a discussion of some of the limitations to that provision.

Financial responsibility for part-time study lies mainly with students themselves rather than the state and/or their employers (to be discussed below). The government-funded system of financial support for part-timers described below has several drawbacks from a part-time student perspective.

- Part-time undergraduate fees are unregulated unlike tuition fees for full-time students which are capped by government.

- Part-time higher education is not free at the point of access. All part-time students have to pay their tuition fees up-front, unlike the vast majority of full-time undergraduates who pay their fees on graduation with the aid of a government-subsidised student loan.
- The government provides part-time students with fee grants of up to £1,230 a year, and course grants of up to £265 a year for books, and material etc. These grants are means-tested and so are only available to low income part-time students – the current income threshold for the receipt of a full fee grant (for a single childless person) is under £16,845 per annum. The grants are restricted to students who do not already have a Level 4 qualification and/or to those studying over 50% of a full time course. Consequently, funding focuses on those most in need and without prior experience of higher education.
- Only a minority of part-time undergraduate students receive any government funded financial support. Roughly 15% of all part-time undergraduates receive a government fee and course grant and around 35% of part-timers studying for a bachelor's degree. In contrast, all full-time undergraduates receive help with these costs irrespective of the family's income.
- Fee and course grants do not cover part-time students' tuition fees and course costs in full (Callender *et al.* 2010a). In contrast, student loans cover all of full-time students' tuition fees, and most of their study costs.

These factors are likely to have a negative impact on participation. As UK research shows, in line with microeconomic principles, fees paid upfront along with inadequate student support tend to depress higher education participation (Dearden, *et al.*, 2010). This maybe because the short-term costs of HE participation have more meaning to people than the long-term benefits of HE (Cabinet Office, no date)

From an institutional perspective, part-time provision can be unattractive financially for English HEIs. Three elements of the Higher Education Funding Council for England (HEFCE) funding methodology serve to disadvantage part-time provision compared with full-time provision – all issues which have been recognised by HEFCE (2010).

- HEFCE's part-time premium<sup>4</sup>, which takes into account some of the extra costs of providing part-time courses, while helpful, is not large enough to meet all the additional direct and indirect costs of part-time provision (JM Consulting, 2003). Consequently, there is a shortfall between this targeted allocation and the actual costs of delivering part-time study.
- The current HEFCE funding methodology assumes the same fee income per FTE student for both full- and part-time students in their calculation of the assumed resources. Many universities do not charge part-timers the maximum full-time fee pro-rata because of concerns about the impact on widening participation. As a result, most part-time providers experience a shortfall between the assumed fee income and their actual fee income.
- HEFCE funding is linked to student completion. However, non-completion rates among part-time students are high compared with full-timers (HEFCE, 2009) for a wide variety of personal and academic reasons including financial pressures (National Audit Office, 2007). Therefore, part-time providers may receive no HEFCE funding for those students who participate in a course but do not to complete their credit or programme qualification aim successfully.

Together, these three factors act as financial disincentives to deliver part-time study and do not compensate institutions for the risks associated with part-time provision (Callender *et al.* 2010b). Consequently, there are clear incentives for universities to grow their full-time provision and hold down their part-time programmes. This has contributed to a reduction in opportunities to study part-time and a decline in part-time undergraduate enrolment in England (Callender *et al.* 2010b).

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<sup>4</sup> The part-time premium acknowledges the fact that funding allocations are based on Full-time Equivalents (FTE) rather than the actual number of students enrolled. For instance, there will be extra costs associated with two part-time students undertaking 50% of a full-time course compared to just one full-time student in for example their use of library facilities.

## **Proposed reforms of financial support for part-time undergraduates from 2012/13**

The Westminster coalition government now intends to change the financial support available to part-time students. They have endorsed Lord Browne's recommendation (Independent Review of Higher Education Funding and Student Finance 2010), to withdraw most government funding for undergraduate part-time teaching and to extend student loans to part-time students in England to pay for their higher tuition fees from 2012/13 (Hansard, 3 Nov 2010: Column 926).

One of the principles informing Browne's proposals was that:

'Part-time students should be treated the same as full-time students for the costs of learning. The current system requires part-time students to pay upfront. This puts people off from studying part-time and it stops innovation in courses that combine work and study. In our proposal the upfront costs for part-time students will be eliminated, so that a wider range of people can access higher education in a way that is convenient for them.' (Independent Review of Higher Education Funding and Student Finance, 2010, p. 5)

Elsewhere Browne observed:

'The lack of support for part-time study makes it much more difficult for this country to catch up with other countries on the skill levels of the existing workforce. Individuals who are already in work and do not have a higher education qualification are usually unlikely to give up their jobs and enter full-time study. Part-time study may be a realistic option for them, but access to part-time study is hampered by the lack of Government support. The potential exists to combine the experience of individuals already in work with the skills that higher education can provide; but it is not being exploited.' (Independent Review of Higher Education Funding and Student Finance, 2010, p 22-23).

From 2012/13, the following changes to part-time student financial support will be introduced:

- Part-time tuition fees will be capped, and the maximum tuition fee allowed will be £6,750 per year.<sup>5</sup>
- Tuition fee grants and course grants will be abolished.
- Part-time students will qualify for income-contingent student loans to pay for their tuition. The loans will be restricted to students who do not already have a Level 4 qualification and to those studying 25% or more of a full time course.<sup>6</sup>

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<sup>5</sup> This is equivalent to 75% of the maximum full-time fee of £9,000

<sup>6</sup> While studying the interest rate on the loans will be inflation plus 3%.

- The student loan repayments and the interest charged on the loan repayments will vary depending on a graduate's earnings. Both graduates from part-time and full-time study will not need to repay their loans until they are earning £21,000 a year, when the interest on their loan will be limited to the rate of inflation. Graduates earning between £21,000 and £41,000 will be charged interest on a sliding scale up to a maximum of inflation plus 3% when earnings exceed £41,000 per year.
- Students will pay 9% of their income above £21,000 until they have repaid all their student loan debts with any outstanding debt being forgiven after 30 years.
- Graduates from part-time study will be liable to loan repayments in the April three years after their course begins, or in the April after their course ends if their courses last for less than three years.

Consequently, all part-time students aiming for a bachelor's degree will have to start repaying their loans while still studying, if earning over £21,000. In contrast, full-time students, irrespective of their financial means, will not have to repay their student loans until they have graduated, and start to reap some of the financial benefits of learning.

According to the Department for Business, Innovation and Skills (2010a), the proposed changes will mean more part-time students will benefit from financial support. Under the new financial arrangements, 30% of all part-time undergraduates will be entitled to a student loan for their fees come 2012/13, and around 67% of part-timers studying for a bachelor's degree will qualify (BIS, 2010a, p 18). Those excluded will be students who already have a Level 4 qualification and to those studying less than 25% of a full time course. In contrast, nearly all full-time undergraduates will be eligible for these enhanced loans for their tuition fees. Indeed, the government anticipates a tuition fee loan take-up rate of 90% among full-time undergraduates (BIS, 2010a).

The majority of part-time undergraduates will therefore continue to be ineligible for government funded financial support in the form of a fee loan, and will still have to pay their tuition fees upfront. There continues, therefore, to be a risk to part-time HE participation because from 2012/13, universities will have to charge considerably higher tuition fees to compensate for the withdrawal or reduction of government funding for teaching. Moreover, part-time providers will lose completely the part-time premium; the monies they currently receive from government to cover the additional costs associated with delivering part-time study. So on a pro-rata basis, part-time fees might need to be higher than full-time fees. Consequently, some potential part-time students could be faced with higher fees and no fee loans. It is unknown how potential part-time students will respond to these higher fees in the absence of loans, or whether those who are eligible for the new loans will take advantage of them.

### **1.4.3 Encouraging employer support of higher level skills**

'The Government cannot tackle the skills challenge on its own. Employers and citizens must take greater responsibility for ensuring their own skills needs are met.' (BIS, 2010b p, 6). This government, like those before it, have repeatedly stated that employers should contribute more to the costs of educating and training their workforce and to investing in high level skills.

Callender *et al*, (2010a) found about a third of part-time HE student employees report that their employers pay for all their course fees and nearly a half obtain paid time off to study. Callender *et al*'s (2010a) study, like others before (Woodley 2004, Callender *et al*, 2006, Johnson *et al*, 2009), confirmed that employers are very selective in terms of who they are prepared to sponsor, favouring the most advantaged in their workforce. From employers' perspective, there is an understandable logic to sponsoring employees who have already proved themselves in higher education. However, employer support is very unequally distributed to the detriment of those students most in need of help to improve their labour market position and human capital – those from working class households with low-incomes and poorly paid jobs and low levels of entry qualifications and with no prior experience of HE. Those most likely to benefit are white, full-time workers, from the wealthiest households already with a First/Bachelor's degree (Level 4 or 5 qualifications) and taking a vocational qualification. Consequently, students least in need of financial help and employer support receive it, while the most disadvantaged groups miss out. Instead, these students have to rely on less generous government grants, discussed above. Indeed, partly on grounds of equity and partly because of this market failure that the government has decided to intervene in the provision of student financial support for part-time students (BIS, 2010b), particularly for those without any experience of HE and who wish to up-skill rather than re-skill.

It is against this background and with this policy agenda in mind, that this study was undertaken.

## **1.5 Aims and objectives of the research**

The overall aim of this study was to compare how both part- and full-time undergraduate students fared in the labour market after leaving higher education and whether the qualification acquired through undergraduate study brought real, sustainable benefits to the individuals. The study particularly sought to help fill some of the large gaps in our knowledge about part-time graduates who have tended to be ignored in the wider literature on graduate employment.

The main objectives of the study were to assess the impact of undergraduate study on graduates' employability, earnings, and labour market progression and how this may vary by mode of study – namely, by whether they studied full or part-time as an undergraduate. Specifically, the study explored the effects of full and part-time undergraduate study on:

- the probability of being employed six months and three and a half years after graduation;
- transitions in employment status between six months and three and a half years after graduation; and
- salary levels and progression between six months and three and a half years after graduation for employed graduates.

Furthermore, the study sought to explore the implications of the findings for policy development particularly in relation to part-time students and part-time study.

The study is exploratory and to our knowledge no such analysis has been conducted previously. To some extent, therefore, this impacts on the level and detail of the conclusions that can be drawn.

## **1.6 Data and Methodology**

The study involves secondary analysis of data from the Longitudinal Destination of Leavers from Higher Education (Longitudinal DLHE) survey.

### **1.6.1 The Longitudinal DLHE**

The Longitudinal DLHE survey builds on earlier research projects (for example, Elias and Purcell 2004a), looking at destinations of leavers from higher education but is much larger than previous surveys. It replaced the First Destinations Supplement for 2002/03 leavers onwards, extending coverage to more postgraduate courses and leavers who studied part-time, and collecting more comprehensive information on leavers' destinations. The DLHE survey is carried out by the Higher Education Statistics Agency (HESA) and has two stages. The first stage is a census of individuals who have completed higher education courses in the UK. This is carried out roughly six months after the courses end, and is often referred to as the Early Survey. The second stage is a follow-up survey that looks at the destinations of leavers up to three and a half years after they qualified. This is referred to as the Longitudinal Survey. It is not a census. It is based on a sample of graduates who responded to the Early Survey. For further details see HESA (2009).



To date there have been two follow up surveys for cohorts of students graduating in 2002/03 and 2004/05. A third follow up is in progress for the 2006/07 cohort of graduates. Given the rapidly changing policy environment in HE we limit our analysis to the most recently available data on the 2004/05 cohort of leavers.

The six month survey had a response rate of 74%, resulting in a sample of over 300,000 graduates. The three and a half year survey sample was selected from a subset of 71,390 six month respondents. The response rate here was 58% leaving a little over 40,000 graduates. Our sample is refined a little and does not include students who had taken postgraduate qualifications or students who were domiciled outside the UK. Survey weights that account for differences in response rates by some key characteristics were provided with the dataset.

In this study we focus exclusively on graduates who were UK domiciled prior to studying and who had completed a First Degree or another undergraduate qualification. Not all undergraduate qualifications are included in the sample frame for the DLHE survey, so our analysis focuses on those graduates who had completed one of the following qualifications:

- First degree leading towards obtaining eligibility to register to practice with a Health or Social Care or Veterinary statutory regulatory body
- First degree with qualified teacher status (QTS)/registration with General Teaching Council
- First degree
- Enhanced first degree
- First degree and diploma (to be obtained concurrently)
- Foundation degree
- Diploma of Higher Education
- Certificate of Higher Education
- Diploma in HE leading towards obtaining eligibility to register to practice with a Health or Social Care regulatory body
- HND
- HNC

The surveys provide information on the labour market circumstances of individuals at two points in time roughly six months and three and a half years following graduation. This includes whether they were employed, unemployed and looking for work, engaged in study or training or doing something else. For respondents who were employed, the survey provides further information about the nature of the job including occupation, size of employer, whether the job was full-time or part-time, permanent or temporary, the industry of the employer and earnings. The earnings data made available to us is restricted to those in full-time employment and is available in ten salary bands, which means our analysis is limited to whether a graduate is in a particular salary band and whether they move between bands. It is possible that earnings increases may simply reflect changes in line with average earnings increases, so it will not be possible to distinguish between this type of pay increase and those that are due to the qualifications achieved. However, the aim of the study is to benchmark increases for graduates from part-time study against those from full-time study, so if the average earnings increases are the same for both groups of graduates then this should not affect our findings.

The proposals for HE funding seek to treat full-time and part-time students the same such that both will face the same salary thresholds in terms of the repayments of their loans, so this will be a useful focus of earnings analysis. The data is not available to allow us to consider whether graduates earn above the exact repayment thresholds (recall from Section 1.2.5 graduates repay their loans when they are earning £21,000 per year and the maximum rate of inflation on these loans applies once graduates earnings exceed £41,000). However, we do have data identifying whether graduates earn above £20,000 or above £40,000 which will be reasonably good proxies for the real repayment thresholds.

Where individuals are recorded as being in employment their occupation and industrial classification is recorded using standard definitions. As well as employment characteristics, the survey also provides details of key socio-economic characteristics and asks about further study training or research and qualifications achieved since graduation.

## 1.6.2 Methodological challenges

The methodological approach to estimating returns to education has received considerable attention. It is a standard evaluation problem; see Heckman et al (1999) for a discussion. A useful review of popular methods is provided by Blundell et al (2005) which highlights approaches used to overcome the sources of bias which arise due to individual education choices, in order to recover the true causal effect of education on earnings. These biases may arise, for example, because individuals of higher unobserved ability or with higher unobserved payoffs from schooling may invest more in education.

The issue that we are interested in understanding better does not fit within this exact methodological framework, because returns to education are generally estimated relative to not receiving education or receiving less or different types of education. However, a similar approach can be used in terms of estimating the impact of achieving an HE qualification by part-time study relative to achieving the same qualification by full-time study. Here the educational choice is not about whether or not to study, but more about whether to study full or part-time and when in the life cycle to study.

This latter point is illustrated by considering the populations of full-time and part-time students. They are very different. Full-time students are predominantly aged less than 25 and as such typically have little or no labour market experience, whilst part-time students are much more likely to be older and thus have more labour market experience, see Table 1.1. Older people, making a decision to study (typically part-time) is likely to be dependent on an earlier decision to have not studied (typically full-time). This earlier decision may have been made by the individual themselves or by the fact that they did not have the entry qualifications at the time. Unfortunately the DLHE survey does not include any questions that would allow us to estimate how such decisions are made.

The issue of comparing full-time graduates with part-time graduates is further complicated by the fact that full-time graduates largely study for honours degrees whilst part-time students are more likely to be studying for other HE qualifications such as certificates and diplomas. Analysis, however, can easily compare, by mode of study, students with the same qualifications.

The DLHE survey provides a lot of required information to examine the impact of HE qualifications on employment and earnings. The big problem with the data is the absence of information on earnings and the presence of only partial information on employment prior to commencement of studies. This means a before and after comparison of earnings and employment is not possible. However, the survey allows examination of earnings and employment trajectories between six months and three and a half years after graduation. This provides new and illuminating evidence of the impact of HE study on pay progression.

Analysis of earnings is further complicated by non-response to salary questions. This data was only available for just over half of graduates in employment six months after graduation and a little above three-quarters of graduates in full-time employment three and a half years after graduation. Given this, there is scope for bias in any estimates relating to salary measures. However, the multivariate models include a wide range of control variables, many of which are likely to be related to non-reporting of salary information, so these biases are likely to be minimal.

The study uses multivariate techniques which controls for a range of factors that are known to influence employment and earnings, including age, gender, ethnicity, industry, occupation and region. For each of our questions of interest we identify differences in outcomes by mode of study – full-time or part-time.

Section 1.2 highlighted a number of policies issues relevant to part-time students. The analysis will attempt to explore whether part-time study had a bigger or smaller impact on the outcomes considered for certain key subgroups.

We have argued that a key area of policy interest is sources of support for payment of tuition fees. The data allows us to identify the major source of tuition fees, which means we can consider employment outcomes for graduates from part-time and full-time study by whether they received no support with their fees, support through a Local Education Authority (LEA) award (the main source of support for full-time students), support from their employer, or support from other UK government sources.

Financial support for tuition classified by HESA as 'Government' primarily refers to help for those studying medicine and subjects applied to medicine which was funded by the Department for Health. Students, who according to HESA, were in receipt of 'Government' help and who were included in the 2004/05 cohort DLHE Longitudinal survey, would have been eligible for NHS bursaries. There were two types of bursaries, means-tested and non-means-tested, offered for different types of courses all of which were healthcare related. Both bursaries included payment of tuition fees on behalf of the student. Part-time students received the same as full-time students on a pro-rata basis.

Financial support classified by HESA as derived from a Local Education Authority refers to the main sources of government-funded financial support for both full- and part-time students for students studying subjects other than medicine and subjects allied to medicine. Until 2009/10, Local Education Authorities were responsible for administering most state-funded support.<sup>7</sup> The LEA support available to students included in the 2004/05 cohort DLHE Longitudinal survey differs depending on whether they studied part- or full-time. LEA financial support for part-time students was reformed several times between 1997 and 2005. It is difficult, therefore, to be precise about the financial support part-time students in the 2004/05 cohort DLHE Longitudinal survey might have received because it depends on when they started studying. Most likely, low-income part-time students included in the survey would have been eligible to have their tuition fees waived in full.<sup>8</sup> For the purpose of student support – low income is defined as those in receipt of social security benefits. Part-time students not in receipt of social security benefits would have had to pay for their fees up-front and the fees they paid were not capped. By contrast, all full-time students in England included in the 2004/05 cohort DLHE Longitudinal survey would have been eligible for a means-tested help with their tuition fees.<sup>9</sup> In 2002/03, the maximum full-time tuition fee charged was £1,100. The fee was means-tested based on the students' family income. Students with residual family incomes of below £20,480 were exempt from paying any fees, those from families with incomes of between £20,480-£30,501 paid a partial fee, and those from households with incomes of £30,502 or more paid the full tuition fee of £1,100.

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<sup>7</sup> Since 2009/10 Student Finance England and the Student Loan Company have been responsible for administering both student loans and grants for new full-time and part-time entrants.

<sup>8</sup> Low-income students were also eligible for means-tested loans of £500 towards their course costs.

<sup>9</sup> Full time students were also eligible for means-tested loans of up to £4,815 towards their living costs in 2002/03. Note no grants were available for students living costs.

There are limited measures to allow us to assess whether social mobility has been enhanced through HE study. Data on the social class of students at the time of studying is not widely available for part-time students, but we can consider those who entered HE with low level qualifications (below Level 3) to see how their employment outcomes compare with those with higher level entry qualifications.

As previously noted a large number of part-time students already had Level 4 qualifications when they started their study programme. These students are clearly not upgrading their qualification level, but may be thought of as re-skilling, so examination of entry qualifications will also allow us to consider the impact of re-skilling as well as social mobility. Re-skilling can also be looked at for part-time students through a question that asked whether their motivation to study was to change their jobs or careers rather than to get on in their existing job or career.

There are also limited measures by which we can consider flexible and diverse HE provision. There is a policy interest in promoting part-time study for younger people, so we consider differences in part-time and full-time study for younger students (age under 25) to see if younger part-time students had similar employment and earnings patterns to those that studied full-time.

## **1.7 Outline of the report**

The remainder of this chapter examines the socio-economic, institutional, course, and qualification characteristics by mode of study of the students included in the Longitudinal DLHE survey when still at university. Chapter 2 explores the labour market status, job characteristics, work histories, and salaries of these students by mode of study six months and three and a half years after they graduated. Chapter 3 analyses the factors associated with their employment status at these two points in time using multivariate analysis. Chapter 4 assesses the factors associated with their salary levels and salary growth between these two points in time. The final chapter summarises the main findings and discusses their implications for the HE policies of the Westminster government.

## **1.8 The characteristics of the students surveyed by mode of study**

This section examines the characteristics of the graduates while they were still at university, highlighting the differences between part- and full-time students. It examines only those students included in the Longitudinal DLHE survey, focusing on UK domiciled undergraduate students. Thus, the Longitudinal DLHE data are skewed towards part-time undergraduates taking a First or Bachelor's degree, Foundation Degree, and Higher Nationals.<sup>10</sup>

The following analysis is based on student data taken from the information HESA received for the student prior to them obtaining a qualification so essentially, what was returned in the 2004/05 data collection. Some potentially useful student data such as UCAS tariff scores and socio-economic classification is not available for part-time students. This is because the data is actually collected from students' UCAS application form and part-time students do not currently apply to university via UCAS. Consequently, these variables have not been used in our analysis.

### **1.8.1 Personal and family characteristics**

There are clear differences between part-time and full-time students (Table 1.1). Part-time undergraduates are typically older than full-time students: while 82% of part-time students are aged 25 and over, this is only true for 16% of full-timers. There are no differences by gender. This finding differs substantially from that reported in Callender et al (2010b) which covers all part-time undergraduates, irrespective of their qualification aim, and shows that a higher proportion of part-time than full-time undergraduate students are women. This is because a much higher proportion of women than men undertake qualifications which are excluded from the remit of the Longitudinal DLHE survey (see above Section 1.3.1). In respect of ethnic background, 86% of part and full-time students are white, but a smaller proportion of part-time than full-time students are Asian. Similar proportions of part and full-time students are known to have a disability.

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<sup>10</sup> For an analysis of some of the differences in the characteristics of students by their qualification aim see Callender et al, 2010b.

In terms of entry qualifications, a relatively high proportion of part-time students have prior qualifications of Level 4 (i.e. bachelor's degree) or above while the vast majority of full-time students (85%) enter HE with 'A' levels (Level 3) or equivalent. However, part-time students are also more likely than full-time students to have an entry qualification of Level 2 or below. So the entry qualifications of part-time students are much more polarised than their full-time peers. This reflects the nature of lifelong learning and part-time provision, and the way it affords people with second chance opportunities to study as well opportunities for re-skilling. This has implications for policy in terms of widening participation, and for policies which impact on current students already with Level 4 qualifications. For example, students who already have a Level 4 qualification are excluded from receiving financial support because they may have received state support in the form of subsidised teaching or student aid in the past.



**Table 1.1 Personal and family characteristics by mode of study<sup>1</sup>**

Characteristic	Studied	Studied	Total	
	Part-time (N=3,800)	Full-time (N=26,330)	(N=30,130)	
	%	%	%	N
<b>Age at 31<sup>st</sup> July 2005</b>				
Under 21 years	1	4	4	1,210
21-24 years	16	79	71	21,430
25-29 years	11	6	7	2,140
30 years or over	71	10	18	5,345
Unknown	+	+	+	5
<b>Gender</b>				
Female	60	59	59	17,700
Male	40	41	41	12,430
<b>Highest qualification on entry</b>				
Level 4 or 5	49	9	14	4,350
Level 3 <sup>2</sup>	29	85	78	23,375
Level 2 or below	15	4	6	1,720
Unknown	7	2	2	680
<b>Ethnicity</b>				
White	86	86	86	25,820
Black	3	2	2	660
Asian	4	8	8	2,350
Other	1	1	1	410
Unknown	6	3	3	890
<b>Whether known to have a disability<sup>3</sup></b>				
Known to have a disability	6	7	7	2,130
Not disabled	75	92	90	27,125
Unknown	19	1	3	880
<b>Country of residence (at time of study)</b>				
England	81	84	84	25,295
Wales	6	4	4	1,305
Scotland	11	9	9	2,670
Northern Ireland	3	3	3	860
All	100	100	100	30,130

Base: UK domiciled undergraduate leavers

+ indicates a percentage that is greater than zero, but less than 0.5

*Notes:*

1. *This data is taken from institutional returns on the characteristics of students supplied to HESA. It relates to the institutional return for the last year of study*

2. *Includes ACCESS courses*

3. *This data is collected as part of the UCAS application process and is compulsory for undergraduate students entering through UCAS. Most full-time students apply for undergraduate study through UCAS, but it is much more common for part-time students to apply directly to universities, hence this data is not available for all part-time students. The disability categories indicate the type of disability that a student has on the basis of their own self-assessment. For continuing students, where the information is not already known, institutions have the option of recording the student's disability as not sought. As a result, some institutions have not returned disability data for some of their students. In addition, students are not obliged to report a disability. HESA therefore advises that the figures reported in analyses are derived from a subset which may not be representative of the total student population.*

*Source: Destinations of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

## **1.8.2 Institutional and course characteristics**

Table 1.2 clearly shows how part-time students are concentrated in particular types of HE institutions (HEIs). Nearly two-thirds of part-timers study at post 1992 HEIs; these universities which gained university status after 1992 and prior to that date were polytechnics or colleges of higher education. A further 27% of part-time students studied in pre-1992 HEIs; universities that gained university status prior to 1992. By contrast, under a half of full-time undergraduates attend post-1992 HEIs and 15% pre-1992 HEIs. Overall around a quarter of part-time students are distance learners.

Predictably, the expected length of study programme for part-time students is longer than that of their full-time peers (Table 1.2). Some 39% of part-time students expect their programmes to last more than three years compared with 29% of full-time students. The relatively high proportion of full-time students studying on courses lasting more than three years is because four year bachelor's degrees are much more common in Scotland. In Scotland, 72% of full-time students studying for a first degree expect to take three to four years, but outside of Scotland the equivalent figure is 22%. The absence of data on the expected length of study for a sizable proportion of part-time students is noteworthy. This might be because some part-time students, specifically those studying at the Open University initially only register for a limited number of modules rather than an entire qualification programme. Moreover, the duration of study has particular significance for part-time students in England because of their eligibility for student loans come 2012/13 and the point at which they have to start repaying these loans.

The sources of financial help students receive towards their tuition fees, in part, reflect government student support policies at the time these students entered higher education. It is important to distinguish between the categories used in the HESA data presented in Table 1.2. As discussed in Section 1.6.2, financial support for tuition classified by HESA as 'Government' primarily refers to help for those studying medicine and subjects applied to medicine which was funded by the Department for Health. Financial support classified by HESA as derived from a Local Education Authority refers to the main sources of government-funded financial support for both full- and part-time students for students studying subjects other than medicine and subjects allied to medicine.

The most notable finding in Table 1.2 is that only 6% of part-time students receive help from their Local Education Authority compared to nearly a half of full-time students. It is also noteworthy that employer provided support is a much more significant source of help for part-time students, unlike their full-time peers.<sup>11</sup>

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<sup>11</sup> It is noteworthy that HESA data probably underestimates the proportion of part-time students in receipt of employer support. Nearly all surveys of part-time undergraduates suggest that a higher proportion receive help – for examples see Callender et al, 2010a.

**Table 1.2 Institution and course characteristics by mode of study**

Characteristic	Studied	Studied	Total	
	Part-time (N=3,800)	Full-time (N=26,330)	(N=30,130)	N
	%	%	%	
<b>Type of Institution</b>				
Russell Group	5	26	23	7,045
1994 Group	5	13	12	3,640
Pre-1992 HEIs	27	15	17	4,990
Post 1992 HEIs	64	46	48	14,460
<b>Country of institution</b>				
England	84	83	83	24,965
Wales	5	6	6	1,690
Scotland	9	10	9	2,830
Northern Ireland	2	2	2	645
<b>Expected length of study programme</b>				
Less than or equal to 1 year	3	1	2	485
1-2 years	19	4	6	1,755
2-3 years	17	65	59	17,865
3-4 years	10	25	23	6,970
4-5 years	13	4	5	1,465
More than 5 years	16	+	2	685
Unknown	23	+	3	900
<b>Major source of tuition fees</b>				
Absent / no fees	21	1	3	925
No financial backing	41	44	43	13,030
UK Local Education Authority	6	47	42	12,700
UK Government <sup>1</sup>	8	7	7	2,160
Employer / UK industry	19	+	3	850
Other, including unknown <sup>2</sup>	5	1	2	465
<b>Whether a distance learner</b>				
Distance learner	24	+	3	915
Not a distance learner	76	100	97	29,215
All	100	100	100	30,130

Base: UK domiciled undergraduate leavers

+ indicates a percentage that is greater than zero, but less than 0.5

*Notes:*

*1. Includes awards from UK central govt/local, health, employment & agriculture authorities/bodies.*

*2. Includes Institutional waiver/award; awards from research councils and British Academy, charities and international agencies, EU and other overseas sources;*

*Source: Destinations of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

### **1.8.3 Qualification characteristics**

Part-time students are less likely than full-time students to be studying for a First or Bachelor's degree (68% compared with 91%) (Table 1.3). However, it should be recalled that the Longitudinal DLHE survey, excludes from its scope a large proportion of part-time students studying for other undergraduate qualifications. Part-time students are also more likely than full-time students to be studying: subjects allied to medicine, especially nursing; education especially, teacher training; and combined studies. They are also more likely to be awarded a third class honours degrees but less likely to be awarded an upper second than their full-time colleagues. However, similar proportions get first class honours (Table 1.3).

**Table 1.3 Characteristics of qualification achieved by mode of study**

Characteristic	Studied	Studied	Total	
	Part-time (N=3,800)	Full-time (N=26,330)	(N=30,130)	
	%	%	%	N
<b>Level of Qualification</b>				
First Degree	68	91	88	26,600
Other undergraduate	32	9	12	3,530
<b>Class of First Degree</b>				
First class honours	11	12	12	3,100
Upper second class honours	32	49	47	12,545
Lower second class honours	26	29	29	7,660
Undivided second class honours	8	5	5	1,315
Third class honours	24	6	7	1,980
<b>Subject area</b>				
Medicine & dentistry	+	3	2	685
Subjects allied to medicine	18	11	12	3,700
Biological sciences	3	10	9	2,820
Veterinary science	0	+	+	70
Agriculture & related subjects	1	1	1	320
Physical sciences	2	5	5	1,360
Mathematical sciences	1	2	2	525
Computer science	7	6	6	1,910
Engineering & technology	8	5	6	1,685
Architecture, building & planning	5	2	2	625
Social studies	10	9	9	2,735
Law	3	4	4	1,220
Business & administrative studies	12	11	11	3,435
Mass comms & documentation	1	3	3	825
Languages	3	7	7	1,980
Historical & philosophical studies	5	5	5	1,535
Creative arts & design	2	11	10	2,900
Education	9	4	4	1,320
Combined	10	+	2	470
All	100	100	100	30,130

Base: UK domiciled undergraduate leavers

Notes: + indicates a percentage that is greater than zero, but less than 0.5

Source: Destinations of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

## **2 Descriptive analysis of employment six months and three and a half years after graduation**

This section of the report provides descriptive information about student and graduate employment. We start by analysing data on the employment status of graduates six months after graduation. For those in employment we then consider whether they were employed by the same employer before their programme of study, during their programme of study or both and in what capacity they had been employed. We also consider the extent of employer support for part-time students. We then examine data on the employment status of graduates three and a half years after graduation. For those graduates in employment six months and three and a half years after graduation, we look at some key characteristics of their employment and how individuals' employment status changed between the two surveys. The final part of this section considers salary data looking at the distribution of salary six months and three and a half years after graduation and also on the extent of changes in salary band between the two surveys. Analysis is conducted for graduates from part-time and full-time study separately.

### **2.1 Employment status and whether undertaking further study six months after graduation**

We look at the employment status of graduates from part-time and full-time study alongside information on whether they were engaged in further study six months after graduation. First we look at activity for graduates from part-time study and then for graduates from full-time study (Table 2.1).

The top panel of Table 2.1 shows that the vast majority, 71%, of graduates from part-time study were employed full-time six months after graduation. A significant minority (15% of all graduates from part-time study) were also undertaking further part-time study alongside their full-time employment. This represents a continuation of their work and study pattern; a large proportion of part-time undergraduate students were also employed full-time during their studies (see Table 2.2).

A significant minority of graduates from part-time study, 13%, were employed in part-time jobs six months after graduation. Again a minority of these graduates combined their part-time jobs with further study, with 3% of all graduates from part-time study combining part-time work with part-time further study and 1% combining part-time work with full-time further study.

**Table 2.1 Employment status and mode of further study six months after graduation by mode of study**

Employment Status	Continued full-time study <sup>1</sup> %	Continued part-time study <sup>1</sup> %	Not in Study %	All %
Graduates from part-time study				
Employed full-time	1	15	54	71
Employed part-time <sup>2</sup>	1	3	10	13
Voluntary or other unpaid work	0	+	+	1
Unemployed	+	1	2	3
Other <sup>3</sup>	4	3	6	12
Total (N=3,800)	6	22	72	100
Graduates from full-time study				
	%	%	%	%
Employed full-time	1	6	55	61
Employed part-time	1	1	8	10
Voluntary or other unpaid work	+	+	1	1
Unemployed	+	+	5	6
Other	15	1	6	22
Total (N=26,330)	17	8	75	100

Base: UK Domiciled Undergraduate Leavers

+ indicates a percentage that is greater than zero, but less than 0.5

1. Study here is any form of study and is not restricted to further study in HE

2. Whether in part-time or full-time employment is self reported and no guidance on the number of hours worked that constitutes part-time work is provided to survey respondents

3. Other includes permanently unable to work/ retired; temporarily sick or unable to work/looking after the home or family; taking time out to travel; due to start a job within the next month; not employed and not looking for employment, study or training; or 'something else', most of the 'something else' group were involved in full-time study

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort



Overall 3% of graduates from part-time study were unemployed, but even some of these graduates were undertaking further part-time study. The remainder of students (12%) were doing other things, sometimes in combination with further study, but often not. These other activities included taking time off to travel, temporary sickness or retirement, but the largest group here reported their activity as 'doing something else'.

Overall, more than one-quarter of graduates from part-time study (28%) were undertaking further study, with most of these continuing to study part-time.

The bottom panel of Table 2.1 shows the same information for graduates from full-time study. A lower percentage (61%) of graduates from full-time study were in full-time employment six months after graduation than the percentage of graduates from part-time study (71%), discussed above.

The percentage of graduates from full-time study who were unemployed six months after graduation was double the percentage for graduates from part-time study at 6%. However, graduates from full-time study were much more likely to continue studying full-time, such that 17% of these graduates remained in full-time education six months after graduation. Thus whereas graduates from part-time study, when they continued to study, did so part-time; graduates from full-time study typically continued studying full-time.

A similar percentage, 54% and 55%, were employed full-time and not undertaking further study.

## **2.2 Student employment**

Graduates who were employed six months after graduation were asked a series of questions about this employment. Many of the characteristics of these jobs are considered in section 2.4 below. Here we focus on whether they were employed by the same employer before or during their programme of study, and in what capacity.

These questions provide partial information about employment before and/or during study, but because they were only asked of people who were employed six months after graduation and only about the graduate's employer six months after graduation, some important spells of employment were missed. For example, graduates who were not employed six months after graduation may have been employed before and/or during study, but we do not have any information about that employment. Similarly, employment spells for graduates who changed employer since graduation, or even before graduation are not recorded.

Furthermore, the questions only ask whether the graduate had been employed before and/or during their programme of study. It is not clear about the duration of this employment. It is possible for a survey respondent to record that they were employed by the same employer before and during study and six months after graduation, but there is no information to identify whether this was a continuous spell of employment or whether they left the employer soon after they started to study and returned to that employer after graduation. Questions looking at the nature of this employment, reported in Table 2.3 provide some idea about the permanence of this employment, but it remains possible for respondents to correctly answer the survey questions whilst changing employers many times before, during and after their programme of study.

The key point to note is that the survey questions about previous employment do not identify all previous employment spells. However, despite these limitations, Table 2.2 clearly shows that graduates from part-time study were much more likely to have a relationship with their employer either before or during their study programme that was still evident six months after graduation. More than half of graduates from part-time study (57%) had the same employer six months after graduation who they worked for either before or during their programme of study or both. The equivalent figure for graduates from full-time study was 17%.

**Table 2.2 Whether graduates worked for same employer that employed them six months after graduation, before or during programme of study, by mode of study**

Previous employment	Studied part-time %	Studied full-time %	All %
Before programme of study	12	2	3
During programme of study	17	11	12
Both before and during programme of study	28	4	7
Not employed by same employer	15	41	38
Not employed six months after graduation	15	27	26
Not answered	13	15	15
All % (N)	100 (3,800)	100 (26,330)	100 (30,130)

*Base: UK Domiciled Undergraduate Leavers*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

Part of this difference was because graduates from full-time study were less likely to be employed six months after graduation (73% were employed) than graduates from part-time study (85% were employed). For non-employed graduates, as discussed above, nothing is known about previous spells of employment.

However, the biggest difference was that more than two-fifths of graduates from full-time study were employed six months after graduation for an employer who they had not worked for either during or before their programme of study compared with just 15% of graduates from part-time study.

Differences in the continuity of employment by mode of study can be seen in that more than a quarter (28%) of graduates from part-time study worked for the same employer before, during and after their study programme, whilst the equivalent figure for graduates from full-time study was just 4%. Furthermore, 12% of graduates worked for the same employer before and after their study programme, but not during study compared with just 2% of graduates from full-time study.

**Table 2.3 Nature of employment before or during programme of study, by mode of study**

Nature of employment before or during study	Studied part-time %	Studied full-time %	All %
Full-time or part-time work all year round	77	33	48
Full-time or part-time work – term-time only	12	14	13
Sandwich placement	1	10	7
Other placement / project work	3	18	13
Holiday job	2	19	13
Other	2	6	5
All in employment six months after graduation and with the same employer before or during study % (N)	100 (2,050)	100 (4,090)	100 (6,140)

*Base: UK Domiciled Undergraduate Leavers who were employed six months after graduation and worked for the same employer before or during their study programme*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

Differences in the nature of employment before and during the programme of study by mode of study can be seen in Table 2.3. Most part-time students (77%) worked full-time or part-time all the year round before or during their study and a further 12% worked full-time or part-time during term-time. Very few part-time students had placements or holiday jobs or any other type of employment. The type of employment for full-time students was much more varied. The most prevalent form of employment was still full-time or part-time all the year round, but this was the case for just one-third of full-time students. Full-time or part-time work during term-time only was at a similar level to part-time students, but full-time students were much more likely to have some kind of placement (10% sandwich placement and 18% other placement or project work) and one-fifth of employment for full-time students was in holiday jobs.

The partial pattern of employment described in Tables 2.2 and 2.3 suggests relatively stable employment for a large number of part-time students before during and after their study programme, whilst for full-time students, employment is much less prevalent and much less likely to be sustained after graduation.

For part-time students only, we can also explore what support they received from their employers when they were studying through their responses to a series of questions in the survey. Unfortunately, 60% of part-time students did not answer these questions, which means the quality of the information provided may be questionable. However, for those that did answer the questions, there is some useful information of the nature of the support they received.

Out of the graduates that answered these questions, 88% reported that they were employed during their course or immediately before it. This figure is in line with previous work on part-time students (Callender *et al*, 2010a).

These employed students were asked whether the employer they worked with before or during their course gave them support for all or part of their course. A small percentage (4%) of graduates did not answer the question, but of those that did, just over one-third (35%) reported that they did not receive any support from their employer. The remaining 65% students did receive some form of support and that typically included having their tuition fees paid (38%), study leave (32%) or some other form of support (24%).

These findings are largely in line with existing research on employer support of part-time students (e.g. Callender *et al*. 2010a). As discussed in the introduction, employers are very selective in terms of who they were prepared to sponsor, reinforcing the advantage of certain employees because employers perceive them as a good investment. For instance, Callender *et al*. (2010a p 100) found that 41% of part-time students received an employer contribution towards their fees. Their multivariate analysis showed that those most likely to benefit from such employer support were white, full-time workers, from the wealthiest households already with a First/Bachelor's degree (Level 4 or 5 qualifications), taking a vocational qualification such as a Foundation Degree or Higher Nationals.

**Table 2.4 Employer support given to employed part-time students whilst studying**

	Percentage of graduates	Number of graduates
No employer support	35	445
Employer support received	65	830
Tuition fees paid	38	485
Grant to cover tuition fees and living expenses	2	20
Study leave	32	405
Other support	24	305
Not answered	4	50
Graduates from part-time study who reported that they were employed during or immediately before their course	100	1,325

*Base: UK Domiciled Undergraduate Leavers who studied part-time and reported that they were employed during their course or immediately before it.*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

Callender et al (2010a) also found that over and above financial help with tuition fees, nearly a half of part-time students were given paid time off work to study by their employer, and one in six had received financial help towards their course-related costs. However, just like employers' financial contributions towards employees' tuition fees, employers were very selective in terms of in which employees they were willing to invest, and to support both financially and in kind so that their employees could successfully complete their course of study. Those employees most likely to be given paid time off work and help with course-related costs were also the employees most likely to have had their fees paid in full by their employer. For instance, nearly three times as many students whose employer had paid their full tuition fees as students receiving no tuition fee support at all, were also given paid time off work. Consequently, the employees most likely to receive this additional support were some of the most privileged in the labour market: individuals working full-time with high or medium household incomes studying towards vocational qualifications, especially in engineering. Conversely those missing out included some of the most vulnerable in the labour force, part-time employees or those working voluntarily from low-income households taking a First degree and those studying education and the Law. Although both these subjects are vocational in nature, they did not necessarily reflect the interests of employees' current employers and were being taken because of the individual's desire to change jobs.

### **2.3 Employment status and whether undertaking further study three and a half years after graduation**

The analysis reported in Table 2.1 is repeated here for graduates three and a half years after graduation. For graduates that had studied part-time, the top panel of Table 2.5 shows a similar employment profile to that depicted in Table 2.1 six months after graduation. The percentage of graduates in employment is slightly higher three years later with 73% employed full-time three and a half years after graduation compared with 71% six months after graduation. The corresponding figures for part-time employment are 13% and 14%. An additional 1% of graduates reported in the survey three and a half years after graduation that they were employed, but did not report whether it was full-time or part-time. The percentage of graduates that were in voluntary and unpaid work and who were unemployed was unchanged over time with a small fall in graduates from part-time study doing something else.

The biggest difference over time for graduates from part-time study was that three and a half years after graduation, fewer graduates (12%) were still studying than six months after graduation (28%).

**Table 2.5 Employment status and mode of further study three and a half years after graduation of graduates from part-time study**

Employment Status	Continued full-time study <sup>1</sup> %	Continued part-time study <sup>1</sup> %	Study don't know mode %	Not in study %	All %
Graduates from part-time study					
Employed full-time	+	6	+	67	73
Employed part-time <sup>2</sup>	+	1	+	13	14
Employed – status unknown	+	+	+	+	1
Voluntary or other unpaid work	0	+	+	1	1
Unemployed	0	0	0	3	3
Other <sup>3</sup>	2	1	1	5	9
<b>Total</b>	<b>2</b>	<b>8</b>	<b>1</b>	<b>88</b>	<b>100</b>
Graduates from full-time study					
Employed full-time	1	4	+	76	82
Employed part-time <sup>2</sup>	1	+	+	5	6
Employed – status unknown	+	+	+	+	+
Voluntary or other unpaid work	+	+	+	+	+
Unemployed	0	0	0	3	3
Other <sup>3</sup>	7	+	+	2	8
<b>Total</b>	<b>8</b>	<b>5</b>	<b>1</b>	<b>86</b>	<b>100</b>

Base: UK Domiciled Undergraduate Leavers who studied part-time

+ indicates a percentage that is greater than zero, but less than 0.5

1. Study here is any form of study and is not restricted to further study in HE

2. Whether in part-time or full-time employment is self reported and no guidance on the number of hours worked that constitutes part-time work is provided to survey respondents

3. Other includes permanently unable to work/ retired; temporarily sick or unable to work/looking after the home or family; taking time out to travel; due to start a job within the next month; not employed and not looking for employment, study or training; or 'something else' ,most of the 'something else' group were involved in full-time study

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort



For graduates from full-time study, their employment pattern changed more significantly over time when compared with graduates from part-time study. Six months after graduation, 61% of graduates were in full-time employment, but three years later 82% of graduates were in full-time employment. Compared with graduates from part-time study this represents a shift from there being 10% fewer graduates in full-time employment to 9% more graduates in full-time employment.

During this period there were falls in the percentage of graduates from full-time study who were employed part-time (from 10% to 6%), unemployed (from 6% to 3%) and graduates doing something else (from 22% to 8%).

In terms of further study, similar proportions of graduates from full-time (14%) and part-time study (12%) were still studying three and a half years after graduation.

#### **2.4 Job characteristics for those employed six months and three and a half years after graduation by mode of study**

For graduates who were employed full-time, we next consider the characteristics of their jobs. Here we consider their occupation, the industry they work in, whether they were in permanent or temporary jobs, and the size of their employer in terms of the number of employees. In section 2.6 we consider their annual salary.

We plot data from both points in time and by mode of study to see how graduates from part-time and full-time study differ in the jobs they are in soon after graduation and to see whether the characteristics of these jobs change over time.

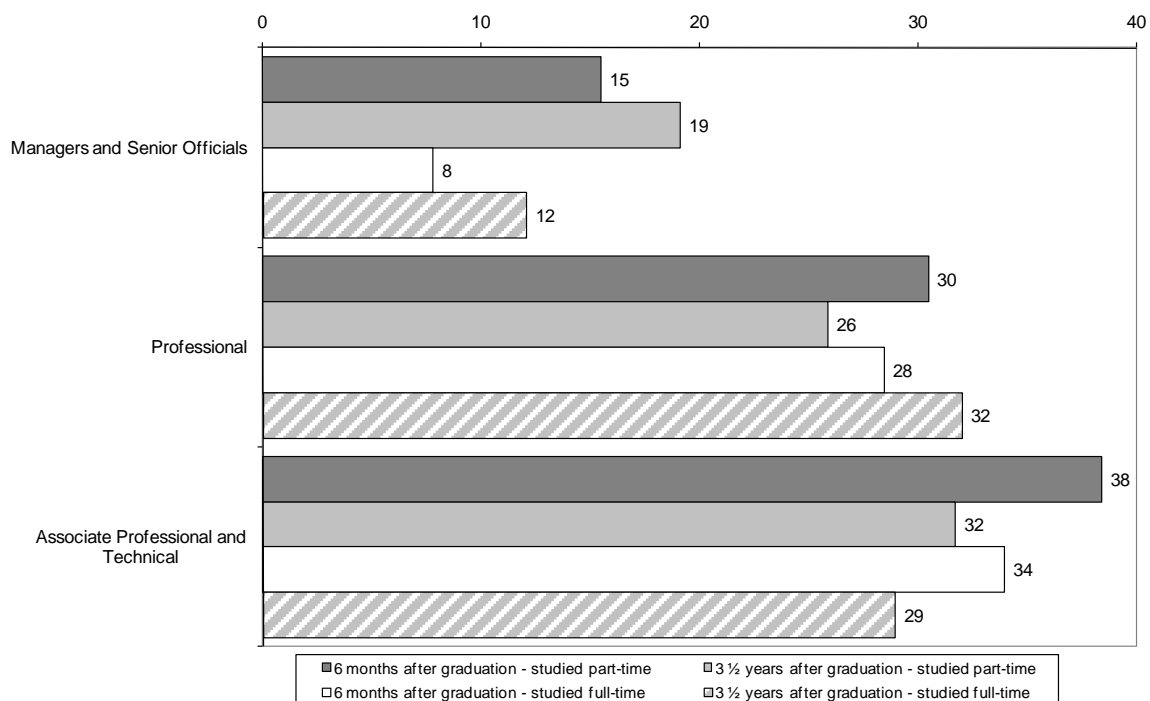
### 2.4.1 Occupation

Figure 2.1 shows the percentage of graduates in full-time employment in the top three occupation groups. For each occupation group, the top bar shows the percentage of graduates, who had studied part-time, working in that type of occupation six months after graduation. The second bar considers the same type of graduates' occupations three and a half years after graduation. The bottom two bars present the same information for graduates from full-time study.

The majority of graduates were in the top three occupation categories: Managers and Senior Officials, Professional occupations and Associate Professional and Technical occupations. This was the case for 83% and 70% of employed graduates from part-time and full-time study respectively, six months after graduation. The biggest difference was that graduates from part-time study were much more likely to be in managerial jobs (15% compared with 8%) possibly reflecting that part-time students were older and had more labour market experience prior to study and may have been in managerial roles prior to the commencement of their studies.

Three years later the percentage of graduates in full-time employment in the top three occupation groups were 77% and 73% for graduates from part-time and full-time study respectively. The percentage of Managers and Senior Officials increased for both graduates from part-time study (from 15% to 19%) and graduates from full-time study (from 8% to 12%) possibly reflecting an increase in labour market experience, and some return to the qualification they had achieved.

**Figure 2.1 Percentage of graduates in full-time employment in the top three occupational groups six months and three and a half years after graduation by mode of study**



*Base: UK Domiciled Undergraduate Leavers who were employed full-time or part-time six months or three and a half years after graduation*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

For those in Professional occupations the changes over time are very different by mode of study. Some graduates who were in Professional occupations six months after graduation were in Managerial occupations three years later, which may depress the figures in Professional occupations. However, whilst the percentage of graduates in Professional occupations who had studied part-time fell from 30% to 26%, for those that had studied full-time the percentage of graduates in Professional occupations increased from 28% to 32%. This difference may be related to the changes in employment rates over time reported in Tables 2.1 and 2.5. More graduates from full-time study were employed three and a half years after graduation than six months after graduation, whilst the employment rate of graduates from part-time study was largely unchanged. It is possible that these graduate labour market entrants from full-time study were more likely to enter Professional occupations, possibly because they had gained a postgraduate qualification allowing them entry to these jobs.

For both modes of study there was a slightly puzzling fall in the percentage of graduates in Associate Professional and Technical occupations. Some of these graduates will have gained employment in Professional or Managerial occupations, but for graduates from part-time study in particular, the overall percentage of graduates in these higher occupations do not show a large increase.

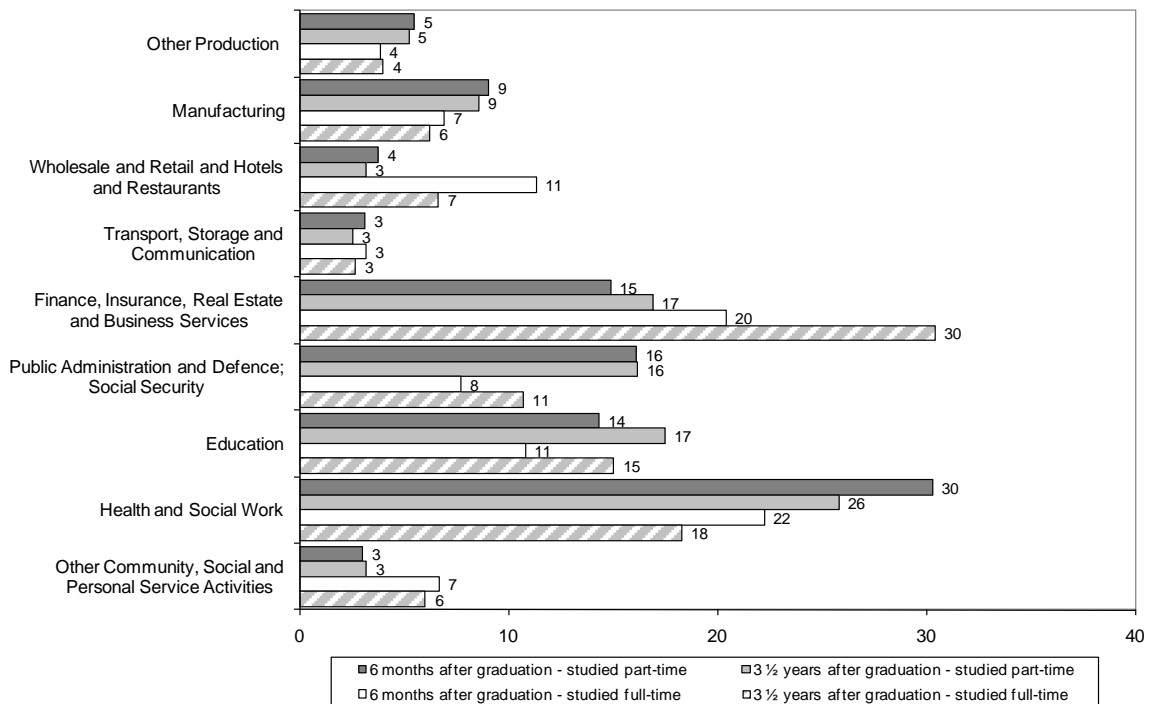
### **2.4.2 Industry**

Figure 2.2 presents the same analysis but by the industry in which graduates worked. Industries have been grouped to allow for coherent analysis. The biggest difference by mode of study is the percentage of graduates working in Finance and Business Services. A much higher percentage of graduates from full-time study worked in these industries (27% six months after graduation and 30% three and a half years after graduation) than graduates from part-time study (15% and 18%). Graduates from part-time study were much more likely to work in Public Services, particularly Health and Social Work at both points in time, although the share of employment in these industries fell for both groups of graduates.

As noted in Section 1.2.3, Mason and Hopkin (2011) highlight the predominance of public sector jobs for graduates from part-time study which may have implications for salary progression due to rigid salary structures in the public sector. Furthermore, spending cuts in the public sector may lead to reduced employment opportunities in these industries in the next few years.

Graduates from full-time study were more likely to work in Wholesale and Retail and Hotels and Restaurant jobs, particularly six months after graduation. This may reflect that at this point in time they were much less likely to be in permanent jobs than they were three and a half years after graduation (Figure 2.3).

**Figure 2.2 Industry of graduates in full-time employment six months and three and a half years after graduation by mode of study**



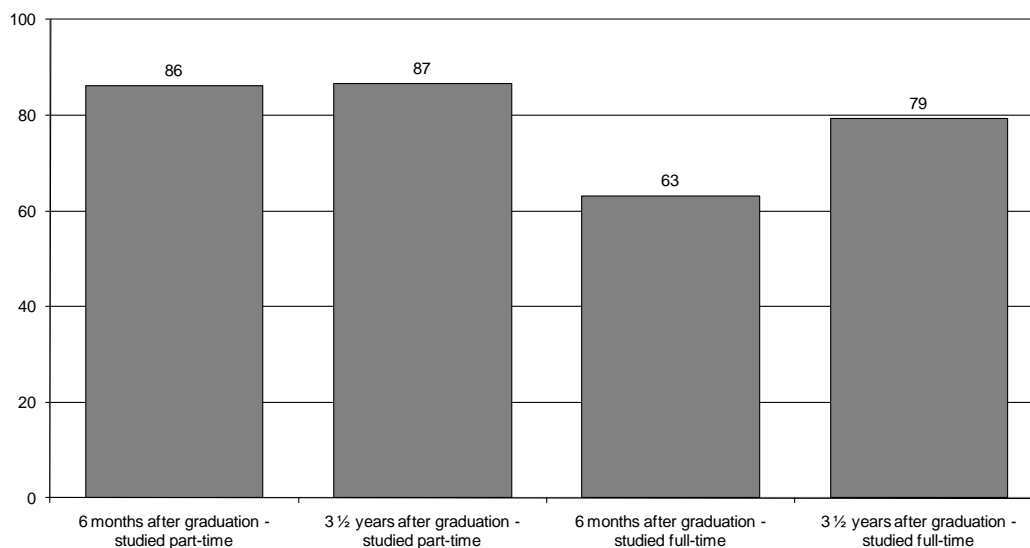
Base: UK Domiciled Undergraduate Leavers who were employed full-time or part-time six months or 3½ years after graduation

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

### 2.4.3 Permanent Job

Nearly all graduates who had studied part-time and were in full-time employment were in permanent jobs both six months after graduation (86%) and three and a half years after graduation (87%), see Figure 2.3. However, graduates who had studied full-time were much less likely to be in permanent jobs six months after graduation (63%) than they were three and a half years after graduation (79%). The gap between graduates from part-time and full-time study narrowed, but even after three and a half years there was a higher percentage of graduates from part-time study in permanent employment.

**Figure 2.3 Percentage of graduates in permanent jobs of those in full-time employment six months and three and a half years after graduation by mode of study**



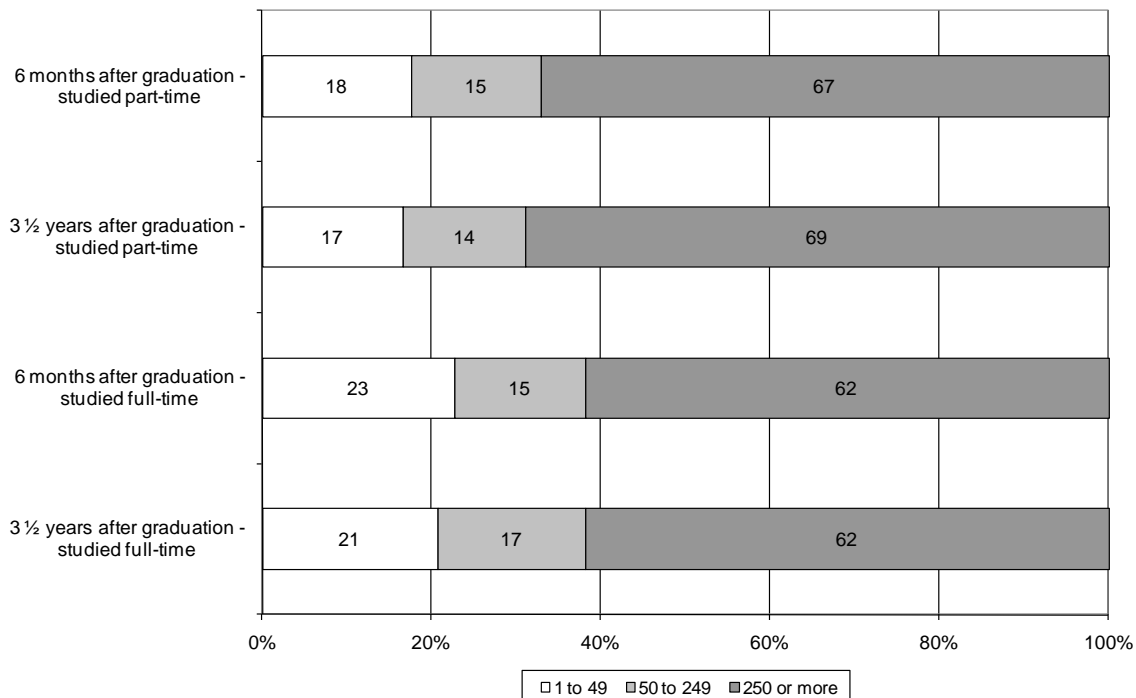
*Base: UK Domiciled Undergraduate Leavers who were employed full-time or part-time six months or three and a half years after graduation*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

#### **2.4.4 Size of employer**

Figure 2.4 shows the distribution of the size of employer for graduates in full-time employment. Graduates who had studied part-time were slightly more likely to work for larger employers (67% worked for employers with 250 or more employees six months after graduation compared with 62% of graduates who had studied full-time). The distribution of size of employer remained stable over time.

**Figure 2.4 Percentage of graduates working for different sized employers six months and three and a half years after graduation by mode of study**



Base: UK Domiciled Undergraduate Leavers who were employed full-time or part-time six months or three and a half years after graduation

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

## 2.5 Change in Employment status

We have seen the patterns of employment six months and three and a half years after graduation, next we turn to individual changes in employment status between the two surveys. Again we consider the analysis by mode of study. Table 2.6 shows the pattern for graduates from part-time study and Table 2.7 for graduates from full-time study.

**Table 2.6** Change in employment status between six months and three and a half years after graduation of graduates from part-time study

Employment status 6 months after graduation	Employment status 3½ years after graduation			
	Employed Row %	Unemployed Row %	Other Row %	All N
Employed	93	2	5	3,200
Unemployed	79	9	12	110
Other	52	5	43	490
Total (N)	3,330	100	370	3,800

*Base: UK Domiciled Undergraduate Leavers who studied part-time*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

For graduates from part-time study, almost all (93%) who were employed six months after graduation remained employed three and a half years after graduation. This analysis is not restricted to being with the same employer, it simply relates to whether an individual was in employment or not. The next row of Table 2.6 indicates that the majority (79%) of part-time graduates who were unemployed six months after graduation were employed three years later. Just 9% of part-time graduates who were unemployed six months after graduation were also unemployed three and a half years after graduation.

Similarly, a large percentage (52%) of part-time graduates who were neither employed nor unemployed six months after graduation, were employed three and a half years after graduation. Many of these graduates were in full-time study six months after graduation, and had subsequently moved into employment. However, 43% of these graduates were also neither employed nor unemployed three and a half years after graduation. Most of these graduates were also engaged in further study.

There is a similar pattern for graduates from full-time study, see Table 2.7. However, for these graduates irrespective of their status six months after graduation, the vast majority were employed three and a half years after graduation. This was the case for 92% of graduates who were employed six months after graduation and 82% and 80% of graduates who were unemployed and neither employed nor unemployed six months after graduation respectively.



**Table 2.7 Change in employment status between six months and three and a half years after graduation of graduates from full-time study**

Employment status 6 months after graduation	Employment status 3½ years after graduation			
	Employed	Unemployed	Other	All
	Row %	Row %	Row %	N
Employed	92	2	6	18,865
Unemployed	82	9	9	1,510
Other	80	4	16	5,960
Total (N)	23,270	770	2,295	26,330

*Base: UK Domiciled Undergraduate Leavers who studied full-time*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

## **2.6 Distribution and change of salary for graduates in full-time employment six months and three and a half years after graduation**

Finally, we consider the salaries of graduates in full-time employment. We have data for those earning £10,000 or less per annum and those earning £50,000 or more per annum. We also have data in £5,000 pay bands between these two thresholds. In line with the discussion in Section 1.5.1 we focus on those graduates earning below £20,000 per annum, those earning between £20,001 and £40,000 and those earning above £40,000 per annum. Figure 2.5 reports salary information for graduates from part-time and full-time study both six months and three and a half years after graduation.

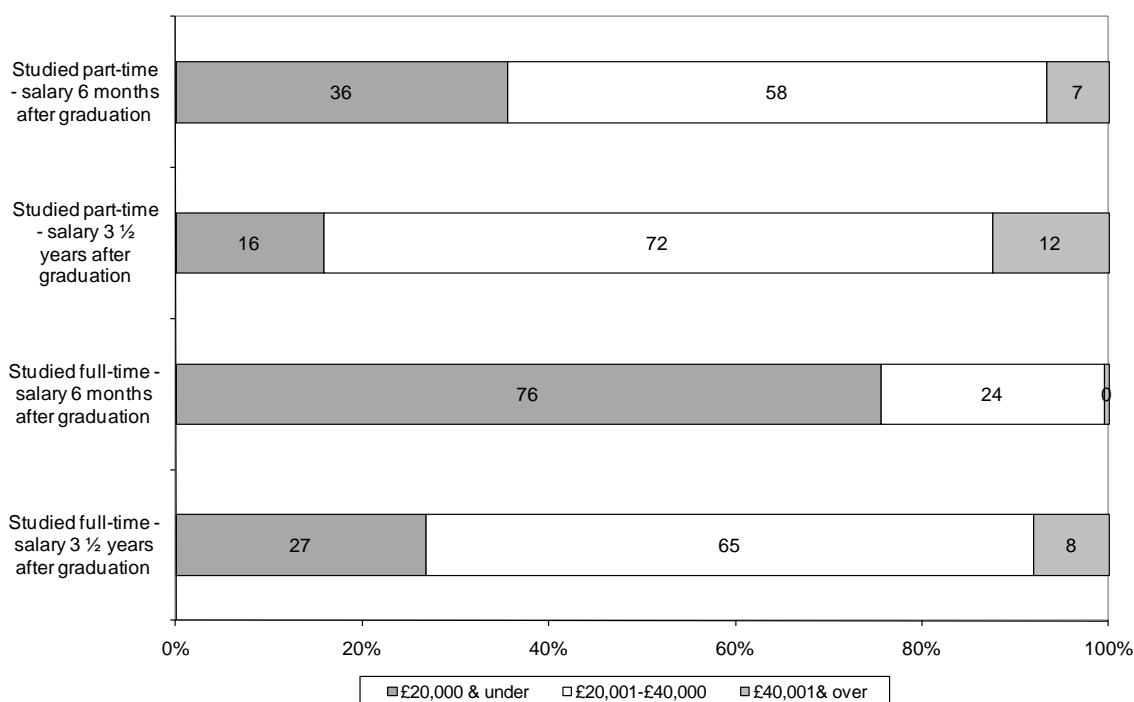
Before considering this data, it is important to note that six months after graduation nearly half of all graduates (45%) did not report their salary. In the later survey, salary data was not reported for 21% of graduates. This level of non-reporting is not unusual when respondents are asked about sensitive data like pay. However, because of the large sample size in the survey, there is sufficient data for analysis, but because of the large amounts of missing data some caution is required when interpreting the findings from this analysis.

For those graduates who did report their salary six months after graduation, there were far fewer graduates from part-time study with salaries below £20,000 (36%) than graduates from full-time study (76%). At the top of the salary distribution less than half a per cent of graduates from full-time study earned more than £40,000 compared with 7% of graduates from part-time study.

These differences partly reflect that graduates from full-time study are typically younger and have less labour market experience and that graduates from full-time study were much less likely to have a Level 4 or 5 qualification when they started this programme of study. The multivariate analysis in Section Four will identify whether the mode of study is important in determining salary levels once differences in characteristics of the graduates have been taken into account.

Not surprisingly far fewer graduates in full-time employment reported salaries below £20,000 per annum three and a half years after graduation than six months after graduation. This is likely to reflect an increase in average earnings over this period, plus some returns to further labour market experience gained and also returns to their recently acquired qualifications that may not have been evident six months after graduation. The most striking change was for graduates from full-time study. Soon after graduation the majority of graduates from full-time study earned less than £20,000 per annum, but three years later most earned between £20,000 and £40,000. The majority of graduates from part-time study earned between £20,000 and £40,000 at both points in time.

**Figure 2.5** Distribution of graduate salaries six months and three and a half years after graduation by mode of study



Base: UK Domiciled Undergraduate Leavers who were employed full-time and reported salary information

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

We now turn to look at changes in salary for graduates who were employed at both points in time. Table 2.8 shows the percentage of graduates in each salary range three and a half years after graduation by their salary range six months after graduation. The top panel is for graduates from part-time study and the bottom panel for graduates from full-time study. The numbers are read across the rows, so that 28% of graduates from part-time study who earned £20,000 or less six months after graduation earned in the same salary range three and a half years after graduation. There were not enough graduates from full-time study earning more than £40,000 per annum six months after graduation to calculate robust figures for these graduates.

The pattern for graduates who earned £20,000 or less six months after graduation is similar irrespective of mode of study. Roughly 70% of graduates moved up to the £20,000-£40,000 salary range three years later, 3% moved up to earn more than £40,000 and the remainder stayed earning £20,000 or less.

There were differences by mode of study for those graduates earning between £20,000 and £40,000 six months after graduation. Here 15% of graduates from part-time study went on to earn more than £40,000 compared with 31% of graduates from full-time study. It seems pay progression here is greater for graduates from full-time study.

**Table 2.8 Change in salaries between six months and three and a half years after graduation of graduates from part-time study**

Salary six months after graduation	Salary 3½ years after graduation			
	£20,000 and under Row %	£20,001 - £40,000 Row %	More than £40,000 Row %	All N
Graduates from part-time study				
£20,000 and under	28	70	3	405
£20,001 - £40,000	2	82	15	700
More than £40,000	10	5	85	75
Total (N)	135	865	180	1,185
Graduates from full-time study				
£20,000 and under	24	72	3	4,770
£20,001 - £40,000	3	67	31	1,600
More than £40,000	*	*	*	20
Total (N)	1,210	4,520	660	6,390

*Base: UK Domiciled Undergraduate Leavers who were employed full-time six months after graduation and three and a half years after graduation*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

Another way of analysing similar information is to consider whether graduates moved up or down the salary bands and how many bands they changed. This data is presented in Table 2.9. Here we exploit the full ten salary bands, so for example a movement up one salary band means an increase in salary from £15,000-£20,000 up to £20,000-£25,000. The exact salary increase is unknown. It could be as little as one penny. An increase from £20,000.00 to £20,000.01 would result in an increase in the salary band. At the other extreme an increase from £15,000.01 to £25,000.00 would also result in an increase of one salary band. At the extremes of the pay distribution someone in the top salary band cannot go up a salary band (in practice 56% of graduates in the top band stay in the top band) and someone in the bottom salary band cannot go down a salary band (here 5% of graduates in the bottom salary band stay in the bottom band).

**Table 2.9 Nature of employment before or during programme of study, by mode of study**

Nature of employment before or during study	Studied part-time	Studied full-time	All
	%	%	%
Moved down at least one salary band	6	2	3
Stayed in the same salary band	16	8	10
Moved up one salary band	39	31	33
Moved up two salary bands	25	30	29
Moved up more than two salary bands	14	27	25
All in full-time employment six months and 3½ years graduation who reported salary in both surveys % (N)	100 (1,185)	100 (6,390)	100 (7,575)

*Base: UK Domiciled Undergraduate Leavers who were in full-time employment six months and three and a half years after graduation and who reported salary in both surveys*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

Table 2.9 shows that graduates from part-time study (6%) were three times more likely to go down at least one salary band than graduates from full-time study (2%). They were also twice as likely to stay in the same salary band (16% compared with 8%). Offsetting this, graduates from full-time study were more likely to go up one, two, or more than two salary bands than graduates from part-time study. For the big salary moves, of more than two salary bands, graduates from full-time study were twice as likely (27%) to go up more than two salary bands than graduates from part-time study (14%). This in part reflects that graduates from part-time study were more likely to be in the higher salary bands six months after graduation, so it was impossible for them to go up more than two salary bands, but overall the differences by mode of study in movement in salary bands suggest faster salary growth for graduates from full-time study than graduates from part-time study.

### **3 Factors associated with gaining employment**

In this section of the report we focus on the relationship between the mode of study and the probability of being employed six months and three and a half years after graduation. We also consider the probability of being employed three and a half years after graduation for people who were unemployed six months after graduation

Our analysis here only includes people who were economically active, i.e. those who were in employment or who were unemployed and looking for work. Thus the analysis excludes people who were retired, who had a permanent health problem or who were temporarily sick. For these groups of people, employment is not always an appropriate outcome from study. The analysis also excludes graduates in further full-time study. It could be argued that some of these graduates undertake further study because they could not find a job, and hence should be included in the analysis. However, we decide to exclude them from the analysis in order to keep a clear distinction between unemployment and employment.

Our multivariate analysis acknowledges there are important differences in student characteristics and attempts to control for them. The control variables in the models largely mirror those presented in the first two sections of this report. They include personal and family characteristics: age, gender, ethnicity, disability and highest qualification held when started studying. The models also include a variable to identify the region where the people lived. Unfortunately, this regional data is only available for people when they were studying, and not where they were living once they had graduated.

The models also include variables capturing characteristics of the course and institution where the people studied. This includes whether they studied through distance learning, the type of institution they attended, a broad classification of the subject that they studied, whether they got help paying tuition fees and the source of this support, the level of their qualification and for first degree students, the classification of their degree.

Ideally we would want to control for whether graduates were employed before or during their study. To do this we would need this information for all graduates. Unfortunately this information is only available for graduates who were employed six months after graduation and, as noted in section 2.2, only previous employment with the graduates' employer six months after graduation is considered. We can and do, however, utilise this partial information when looking at whether graduates were in employment three and a half years after graduation. These models also include other characteristics of the jobs graduates were in six months after graduation. This includes industry, occupation, whether the job was permanent and the size of the employer.

The analysis also looks at how the impact of studying part-time varies by the policy variables discussed in Section 1.4.2.

### **3.1 Probability of being employed six months and three and a half years after graduation**

We estimate the probability of being employed using probit models. The full specification of the models is included in Appendix Tables A.1 and A.2. For each point in time the results from three models are presented. Columns 1 and 3 of Table 3.1 show the estimated marginal effect at both points in time from models that only include a variable identifying whether the person studied part-time or full-time. In this case the reported figure indicates the difference in the probability of being employed for someone that studied part-time rather than full-time.

Columns 2 and 4 of Table 3.1 show the same estimated marginal effect at both points in time from models that also include a number of other control variables that also predict whether the person would be employed or not. Again the reported figure indicates the difference in the probability of being employed for someone that studied part-time rather than full-time, but this time we have taken into account differences in the characteristics of full-time and part-time students.

The analysis presented in Figure 3.1 to Figure 3.4 considers interactions between mode of study and variables of policy interest.

The results in Table 3.1 indicate that six months after graduation, graduates from part-time study were four percentage points more likely to be employed than graduates from full-time study; a difference that was statistically significant. For graduates from part-time study, the employment rate was 97%, compared with 93% for graduates from full-time study. This may not seem a big difference, but if we turn the figures round to consider unemployment probability, graduates that studied full-time were more than twice as likely to be unemployed (7%) than graduates who studied part-time (3%).

We have already seen that part-time students were much more likely to be working for an employer when studying and before studying than full-time students (Table 2.2), so given this degree of employment continuity it is not surprising that employment rates for graduates from part-time study were higher than for graduates from full-time study just six months after graduation.

If we include control variables in the model (Column 2 of Table 3.1) the impact of having studied part-time falls to three percentage points, a difference that remains statistically significant.

**Table 3.1 Probability of being employed six months and three and a half years after graduation**

	Six months after graduation		3½ years after graduation	
Estimated marginal effects				
Studied part-time	0.040*** (0.005)	0.030*** (0.007)	0.002 (0.005)	-0.010 (0.008)
Control Variables included	No	Yes	No	Yes
Pseudo R-squared <sup>1</sup>	0.01	0.06	0.00	0.09
Observations	25,276	25,276	29,658	29,658

*Base: UK Domiciled Undergraduate Leavers who were employed or unemployed and looking for work 6 months or three and a half years after graduation*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

*Marginal effects from regression model reported in Appendix Tables A.1 and A.2*

*Robust standard errors in parentheses*

1. The Pseudo R-squared is an indicator of how well the model explains the variation in the probability of being employed. It ranges from 0 to 1, with higher values indicating better model fit.

\*\*\* indicates significant at 1%; \*\* indicates significant at 5%; \* indicates significant at 10%



Columns 3 and 4 of Table 3.1 report the same information relating to three and a half years after graduation. Here we find no difference in the probability of being employed by mode of study. This is the case both with and without controlling for the characteristics of graduates.

### **3.2 Differences in mode of study effects by key policy variables**

We consider whether the impact on employment is different by mode of study and for graduates with different characteristics. Figure 3.1 considers differences by graduates' major source of tuition fees. The left hand panel relates to six months after graduation and the right hand panel to three and a half years after graduation.

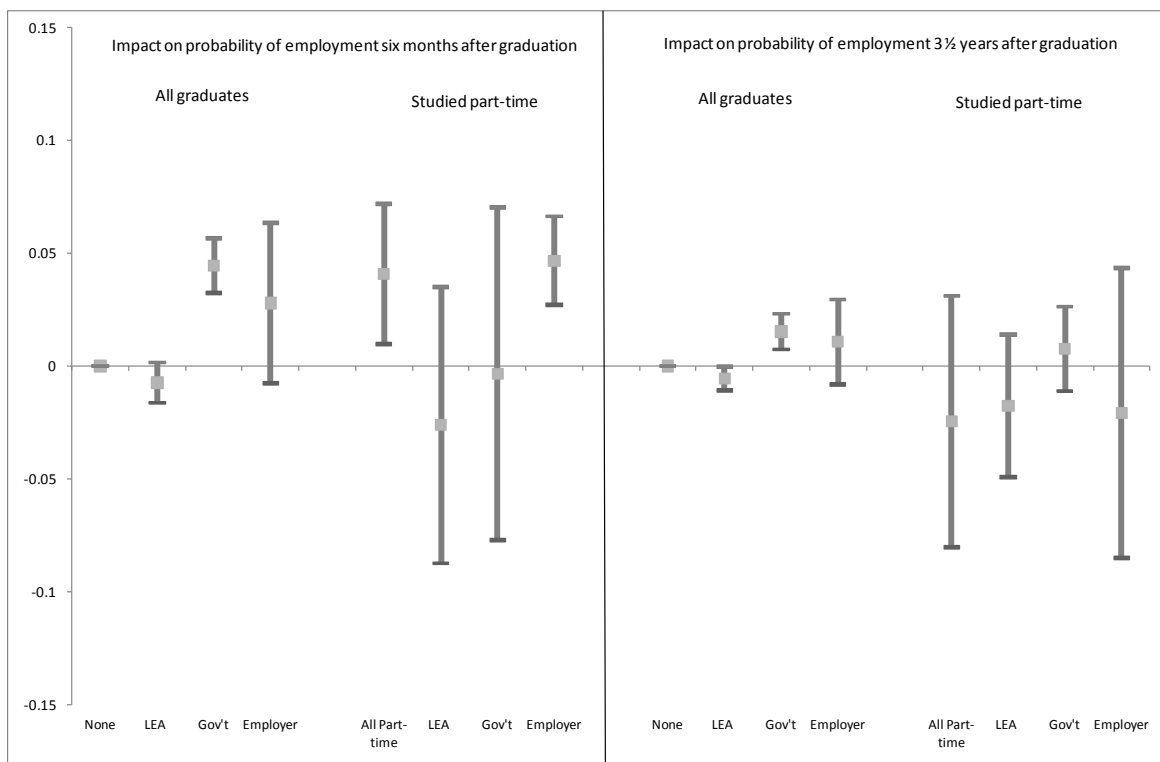
Figure 3.1 plots the estimated marginal effects together with estimated confidence intervals. The full model specifications are also reported in Appendix Tables A.1 and A.2. The marginal effect here is the same as discussed in relation to Table 3.1. This time the confidence interval indicates whether estimated marginal effects are statistically significantly different from the baseline category, in this case a graduate who received no support towards their tuition fees. The estimated marginal effect is represented by the dot in the middle of the bars and the length of the bars (or precision of the estimate) is largely dictated by the number of graduates with the given characteristic. If the bar is wholly above the zero line then graduates with that characteristic were, on average, more likely to be employed at six months or three and a half years after graduation than graduates with the baseline characteristic.

The first set of bars highlight whether graduates who received fee support from different sources were more likely to be employed. The second set of bars show whether this was different for part-time students than full-time students. For example, according to Figure 3.1 graduates who got central government help with their tuition fees were more likely to be employed six months and three and a half years after graduation than graduates who got no support with their tuition fees. The magnitude of the effect declined over time from around 4 to 1.5 percentage points. An employment effect here is not surprising because these students were largely studying subjects allied to medicine, which is a vocational subject with a clear career path.

The overall impact of receiving an LEA award on the probability of being employed six months after graduation was not significant, but three and a half years after graduation, it did become significant. It was negative indicating that students who received an LEA award were slightly less likely to be employed three and a half years after graduation than those who did not receive an award.

The other key finding was that graduates from part-time study who got employer support with their fees were more likely to be employed six months after graduation than graduates from full-time study who got employer support with their fees. However, three and a half years after graduation, this difference was no longer evident.

**Figure 3.1 Estimated marginal effects and confidence intervals for the impact of mode and study and major source of tuition fees on the probability of being employed six months and three and a half years after graduation**



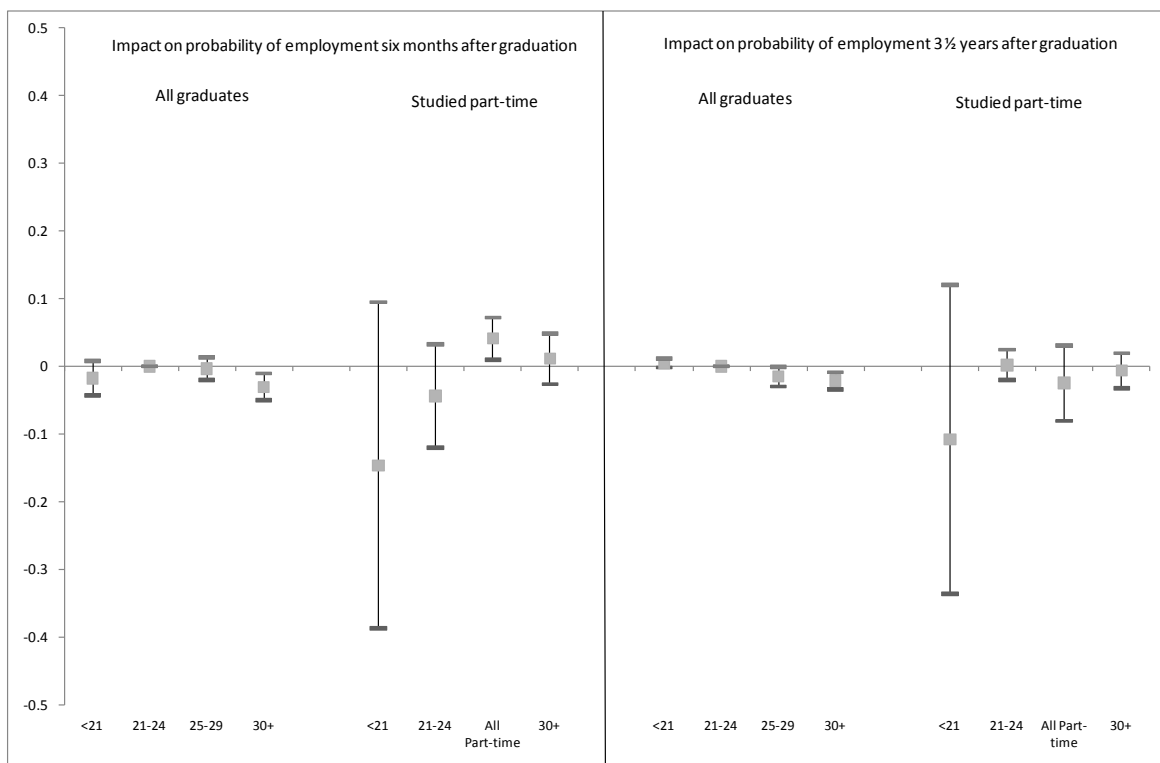
Base: UK Domiciled Undergraduate Leavers who were employed or unemployed and looking for work 6 months or three and a half years after graduation

Marginal effects from regression model reported in Appendix Tables A.1 and A.2

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

Figure 3.2 presents the same analysis by the age of graduates. The results indicate that older graduates were less likely to be employed both six months and three and a half years after graduation. This is a surprising result and may be because we can only identify those aged 30 or more. There may be differences in employment patterns within this age group and the analysis would be improved by having access to age data in more detailed bands. This does however point to there being an employment penalty for graduates who studied part-time.

**Figure 3.2 Estimated marginal effects and confidence intervals for the impact of mode and study and age on the probability of being employed six months and three and a half years after graduation**



Base: UK Domiciled Undergraduate Leavers who were employed or unemployed and looking for work 6 months or three and a half years after graduation

Marginal effects from regression model reported in Appendix Tables A.1 and A.2

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

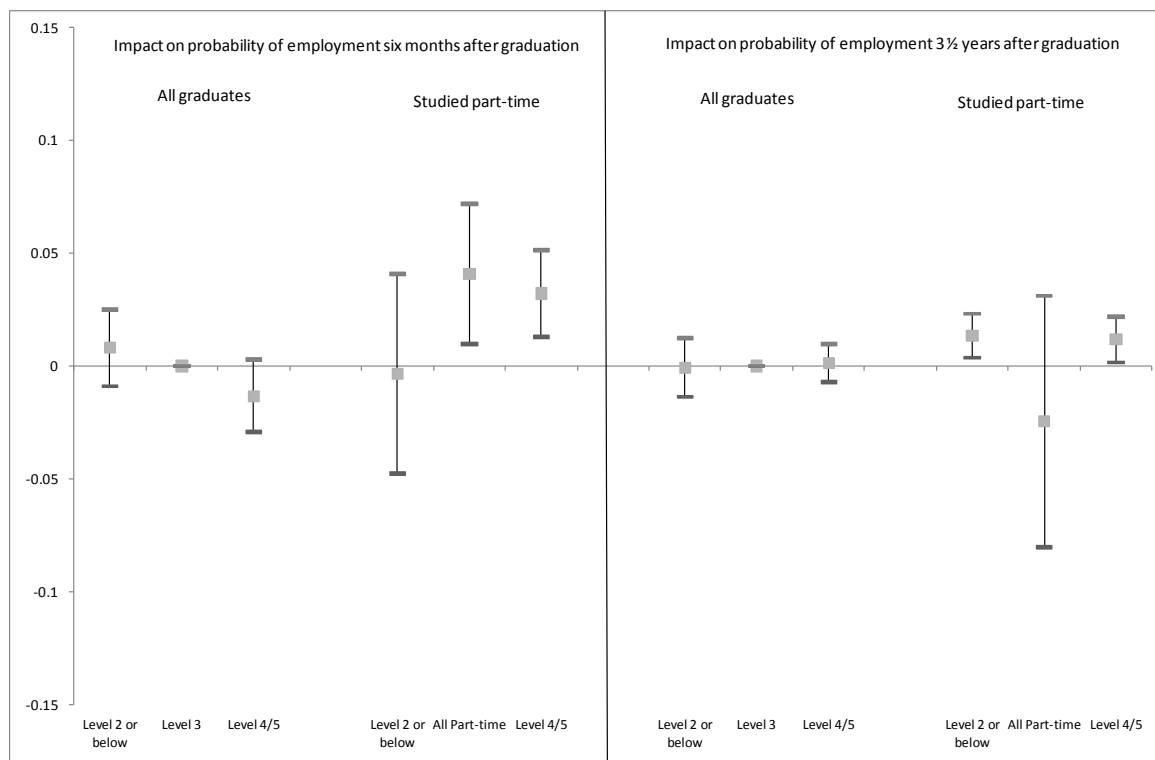
This finding reflects those of other research on the experiences of mature graduates from full-time study (Purcell *et al*, 2007). Purcell *et al* (2007) illustrate the challenges faced by mature students in re-entering the labour market – a situation less likely to be encountered by those who had studied part-time because most of them had never left the labour market. According to Purcell *et al* (2007), the employment problems faced by graduates from full-time study aged over 30 were unrelated to their social background, and their generally lower entry qualifications. Consequently, Purcell *et al* (2007) were left with no better explanation for their less favourable experiences other than age, and mature students' lack of opportunities and information and difficulties in convincing employers of their potential, as well as some evidence of subtle ageism in employers' recruitment practices. This would suggest that, where possible, older students wanting to study might be better off keeping their jobs and studying part-time rather than studying full-time.

Comparisons of employment probabilities for young graduates by mode of study show no differences, although this may in part reflect the relatively few part-time students who were aged less than 21, meaning estimates for this group had large confidence intervals.

Figure 3.3 looks at qualification levels on entry to HE. Overall there were no differences in the probability of being employed six months and three and a half years after graduation by entry level qualification. However, graduates from part-time study who had a Level 4/5 qualification were more likely to be employed six months after graduation than similar graduates from full-time study. This may be because they can more easily adapt the new skills they have learned through their programme of study. This difference is still present three and a half years after graduation. This is an important finding. Moreover, it potentially challenges Dorsett *et al*'s (2010) conclusion that there is no employment effect for men who engage in lifelong learning but do not upgrade their qualification level, and only an employment effect for those who upgrade their qualification level.

At three and a half years after graduation there was also a difference in employment probabilities for graduates who entered HE with a qualification below Level 3 in favour of those that had studied part-time. This was not evident six months after graduation, so for those students who were up-skilling, part-time study had benefits relative to full-time study that take some time to emerge.

**Figure 3.3** Estimated marginal effects and confidence intervals for the impact of mode and study and highest qualification on entry to HE on the probability of being employed six months and three and a half years after graduation



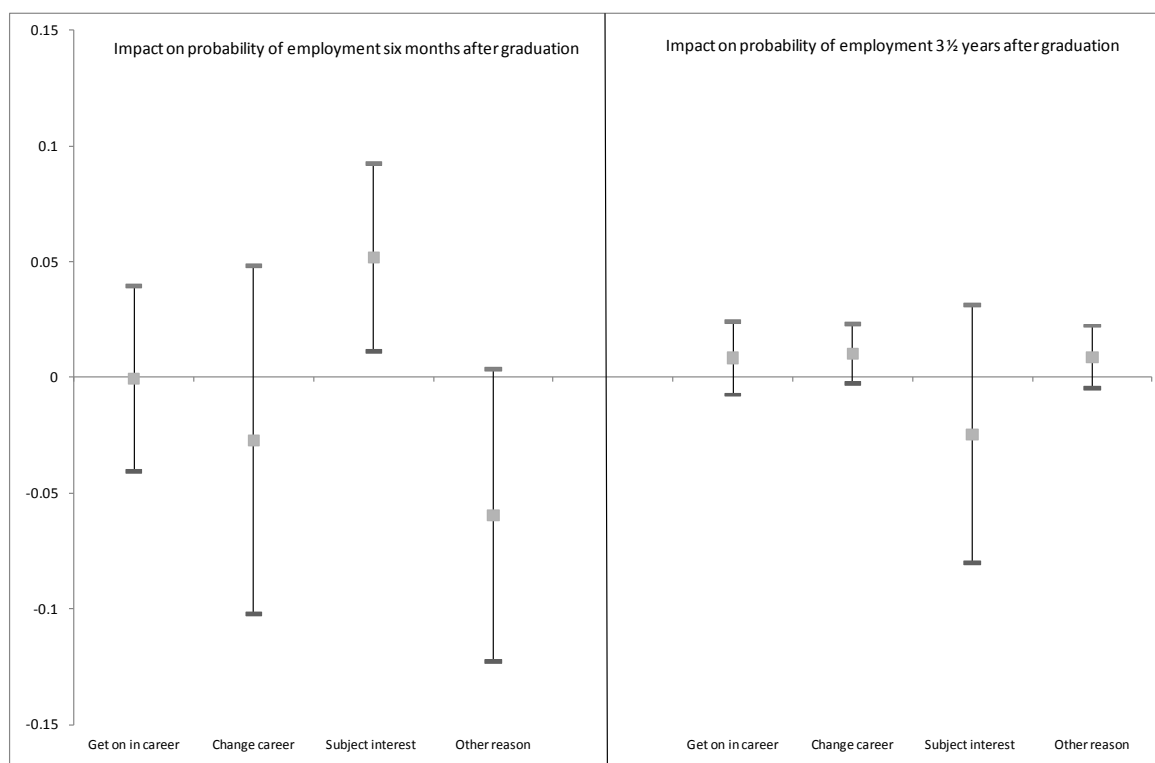
Base: UK Domiciled Undergraduate Leavers who were employed or unemployed and looking for work 6 months or three and a half years after graduation

Marginal effects from regression model reported in Appendix Tables A.1 and A.2

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

Finally we consider difference for graduates from part-time study by their motivations to study (Figure 3.4). This question was not asked of full-time students. Here the estimates are relative to graduates from full-time study and we find little difference in employment probabilities by motivations to study, except for those that chose to study because they were interested in the subject matter of the course who were more likely to be employed six months after graduation, a difference that was not sustained.

**Figure 3.4** Estimated marginal effects and confidence intervals for the impact of motivations for study for graduates from part-time study on the probability of being employed six months and three and a half years after graduation, relative to graduates from full-time study



Base: UK Domiciled Undergraduate Leavers who were employed or unemployed and looking for work 6 months or three and a half years after graduation

Marginal effects from regression model reported in Appendix Tables A.1 and A.2

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

### 3.3 Probability of being employed three and a half years after graduation, having been unemployed six months after graduation.

The final part of this section repeats the above analysis but only for graduates who were unemployed six months after graduation. The above analysis indicated that, on average, studying part-time increased the probability of being employed six months after graduation, but there was no difference in employment probabilities three and a half years after graduation. This analysis looks explicitly at whether more unemployed graduates moved into employment following full-time study than part-time study.

Table 3.2 shows that overall, 12 percentage points fewer unemployed graduates from part-time study moved into employment than unemployed graduates from full-time study. The actual numbers were 77% and 89% respectively. Once we add in the control variables this difference falls to seven percentage points.

**Table 3.2 Probability of being employed three and a half years after graduation given unemployed six months after graduation**

	Estimated marginal effects	
Studied part-time	-0.118*** (0.031)	-0.069** (0.032)
Control Variables included	No	Yes
Log pseudo-likelihood	-3,066.1	-2,930.2
Observations	8,361	8,361

*Base: UK Domiciled Undergraduate Leavers who were employed or unemployed and looking for work three and a half years months after graduation and unemployed and looking for work 6 months after graduation*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

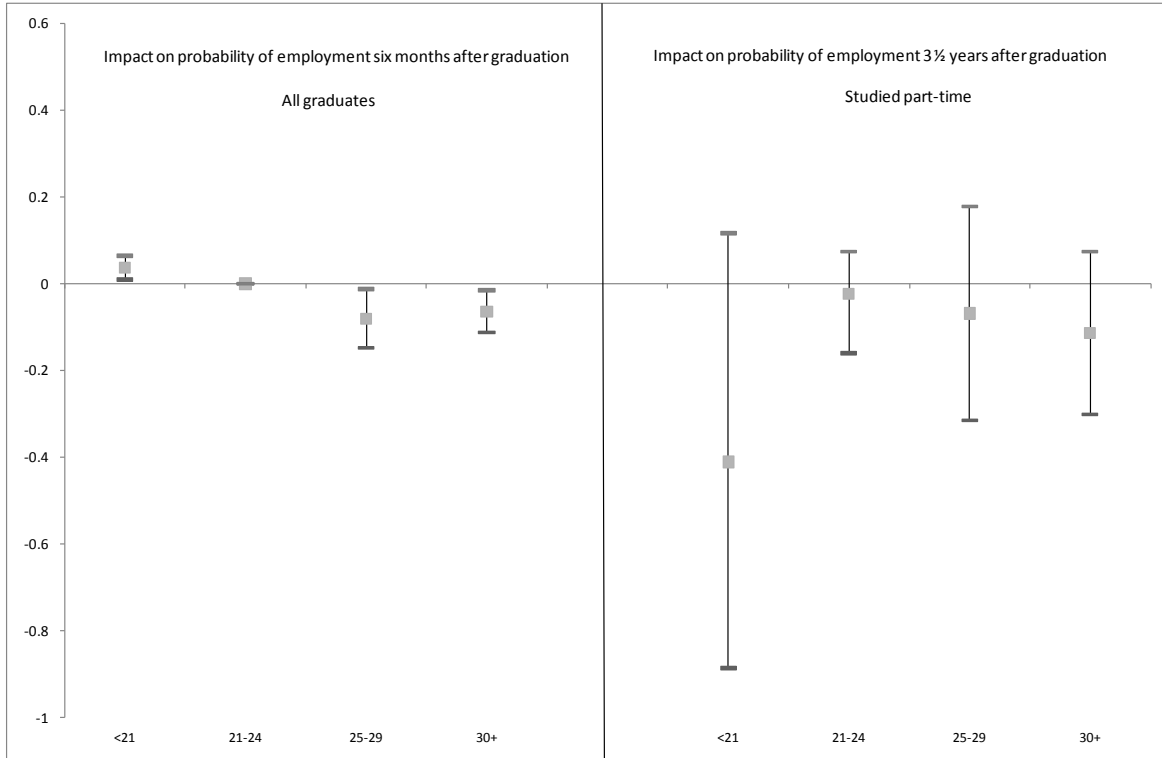
*Marginal effects from regression model reported in Appendix Table A.3*

*Robust standard errors in parentheses*

*\*\*\* indicates significant at 1%; \*\* indicates significant at 5%; \* indicates significant at 10%*

We again explore whether there were differences by the characteristics of graduates. In general the results are inconclusive. The sample of graduates who were unemployed six months after graduation is relatively small, such that trying to look at the impact on the employment transitions for different types of graduates relies on very small sample sizes that are typically not big enough to identify any statistically significant differences. The only significant differences we found were in relation to age, shown in Figure 3.5. Here graduates who were aged less than 21 were more likely to have moved from unemployment six months after graduation to employment three and a half years after graduation, whilst older graduates were less likely to make a transition. Differences between graduates from full-time and part-time study were not evident.

**Figure 3.5** Estimated marginal effects and confidence intervals for the impact of age and mode of study on the probability of being employed three and a half years after graduation, given unemployed six months after graduation



*Base: UK Domiciled Undergraduate Leavers who were employed or unemployed and looking for work three and a half years months after graduation and unemployed and looking for work 6 months after graduation*

*Marginal effects from regression model reported in Appendix table A.3*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*



## **4 Factors associated with salary levels and salary growth**

Finally, we consider the relationship between mode of study and pay. The salary data is available in ten pay bands, starting at less than £10,000 per annum and going up in £5,000 salary bands up to £50,000 or more per annum. Given the nature of the data, we estimate ordered probit models for the probability of being in a particular salary band.

We use the estimates from the models to assess the probability of earning above key salary thresholds. The level of graduate salaries dictates repayment of student loans, such that, under the Westminster Coalition government's reforms, graduates will only make payments when they are earning above £21,000 per year. For graduates who studied full-time their loan repayments start in the April following graduation. By contrast, graduates who studied part-time have to start repaying their loan in the April three years after they started their qualification, or sooner if their course lasts less than three years.

Furthermore, graduate earnings affect the interest rate chargeable on outstanding loans – the interest rate increases as incomes rise. For graduates with incomes below £21,000, the interest rate accruing on their loans will be linked to inflation – their loans attract a zero rate of real interest. Graduates earning between £21,000 and £41,000 will be charged interest on a sliding scale up to a maximum of inflation plus 3% when earnings exceed £41,000 per year. Clearly our analysis is hampered by the banded nature of the salary data available. The pay thresholds we consider are £20,000 per annum and above and £40,000 per annum and above.

Our analysis takes into consideration the fact that part-time students who already have a Level 4 qualification are ineligible for the new loans. These students have been included in our models but the control variables will take account of them. However, our modelling cannot control for the fact that only part-time students studying more than 25% of a full-time course are eligible for the new student loans, because of the absence of robust data on part-time students' intensity of study. In essence, our modelling assumes that all part-time students are eligible for the new loans, when in reality if current patterns continue under the new proposals, only about a third will qualify for them.

A further drawback with our modelling is related to when graduates start repaying their loans. For full-time graduates it is the April after they graduate (assuming they earn £21,000 or over) which is slightly later than when the DLHE survey data are collected - six months period after graduation. However, the difference in time is not large. More serious, is the issue of when part-time graduates have to repay their loans. As discussed above, part-timers are liable for student loan repayments in the April three years after their course begins, or in the April after their course ends if their courses last for less than three years. Students studying for a First degree who make up the majority of part-time students included in the DLHE survey, in reality would start repaying their loans while still studying and before they graduate. We have been unable to take this on board in our modelling because of the absence of robust data on when part-time students' began their course and the absence of salary data while students were studying. In our modelling, we can only estimate student loan repayment patterns based on graduate earnings. In essence, our modelling assumes that the timing of repayments would be the same for both graduates of part- and full-time study – namely once they graduate.

Our analysis controls for the location of the HEI, noting that the proposals discussed above only relate to English students.

The estimated models are similar to those estimated in Section 3, except here, because the focus is exclusively on graduates in employment, we also include a number of measures relating to these jobs. These characteristics include occupation, industry, employer size and whether the job was permanent or temporary.

The model allow us to estimate the probability of earning above the selected pay thresholds, hence in Tables 4.1 and 4.2 we report the marginal effects estimates for each salary range. The estimates for each salary band come from the same models, so we estimate the same three models as before, but this time with banded salary data. The full models are reported in Appendix table A.4, A.5 and A.6.

#### **4.1 Salary levels six months and three and a half years after graduation**

The results in the top panel of Table 4.1 indicate that six months after graduation, graduates from part-time study were a lot more likely to be earning more than £20,000 per annum and also more likely to be earning more than £40,000. Once we control for many of the factors that distinguish full-time and part-time students and also determine salary levels, we still find a pay-premium for graduates from part-time study six months after graduation, although it is reduced significantly. Indeed with our control variables in the models, graduates from part-time study were only 0.4 percentage points more likely to earn £40,000 per annum than graduates from full-time study. At the lower threshold between £20,000 and £40,000, the difference remains great at 21 percentage points.

The bottom panel of Table 4.1 shows that part-time students were also more likely to be earning more than £20,000 per annum and also more likely to be earning more than £40,000 three and a half years after graduation. Once we include control variables in the models the differences are small indicating that just 2.2 percentage points more graduates from part-time study earned between £20,000 and £40,000, down from 20.7 percentage points six months after graduation. The difference for those earning above £40,000 were again small at 1.2 percentage points, a slight increase from the 0.4 difference six months after graduation.

**Table 4.1 Predicted probability of earning £20,000-£40,000 and £40,000 or more six months and three and a half years after graduation, by mode of study**

Estimated marginal effects	Model with no control variables		Model with control variables	
	£20,000-£40,000	£40,000 +	£20,000-£40,000	£40,000 +
Six months after graduation				
Studied part-time	0.344*** (0.010)	0.059*** (0.005)	0.207*** (0.021)	0.004*** (0.001)
Log Likelihood	-6435.5		-4863.6	
Observations	10,351		10,351	
Estimated marginal effects	Model with no control variables		Model with control variables	
	£20,000-£40,000	£40,000 +	£20,000-£40,000	£40,000 +
3½ years after graduation				
Studied part-time	0.036*** (0.002)	0.059*** (0.006)	0.022*** (0.007)	0.012*** (0.005)
Log Likelihood	-16,073.9		-12,856.3	
Observations	19,368		19,368	

*Base: UK Domiciled Undergraduate Leavers who were in full-time employment six months and three and a half years after graduation*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

*Marginal effects from regression model reported in Appendix tables A.4 and A.5*

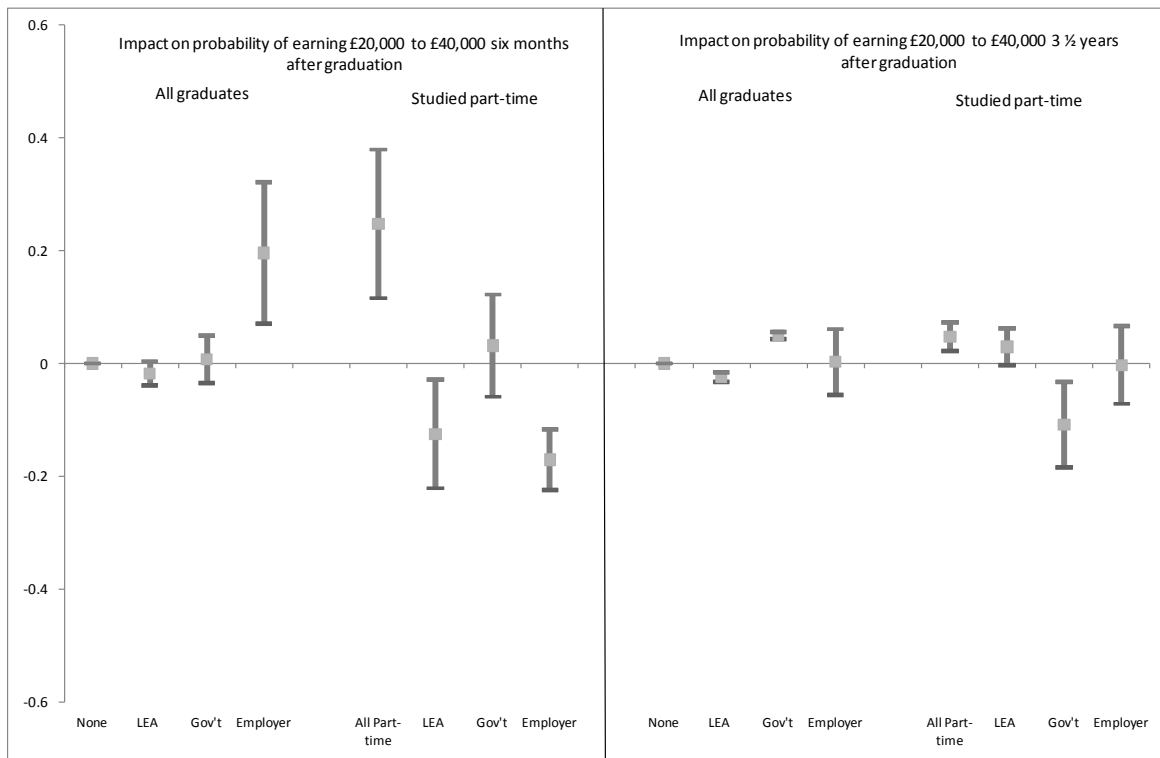
*Robust standard errors in parentheses*

*\*\*\* indicates significant at 1%; \*\* indicates significant at 5%; \* indicates significant at 10%*

In the same way as we looked at differences between graduates from part-time and full-time study in Section 3.2 for the probability of being employed, we consider differences in the probability of earning between £20,000 and £40,000 and £40,000 or more. Given that many of the overall differences by mode of study were small, many of the breakdowns of these differences by graduate characteristics are not significant. We only report on significant differences and note that only differences by age and major source of tuition fees were significant in any of these models.

Figure 4.1 shows that graduates who got help with their tuition fees from their employer were more likely to earn between £20,000 and £40,000 six months after graduation. This difference was not evident three and a half years after graduation. The analysis does not allow us to identify the direction of causality. Callender et al (2010a) show that employers tend to provide fee support for higher earning employees, so this finding may reflect the choice made by employers as to the type of employee that they would support rather than an impact of receiving employer fee support. Graduates from part-time study who got fee support from their employers were less likely to earn between £20,000 and £40,000 six months after graduation than graduates from full-time study, but again this difference was not present three and a half years after graduation. This may reflect that graduates from part-time study are more likely to be in the public sector with more rigid pay structures, such that the employer support does not always lead to enhanced earnings, as noted by Mason and Hopkin (2011).

**Figure 4.1 Estimated marginal effects and confidence intervals for the impact of major source of tuition fees and mode of study on the probability of earning between £20,000 to £40,000 per annum six and three and a half years after graduation**



Base: UK Domiciled Undergraduate Leavers who were in full-time employment six months and three and a half years after graduation

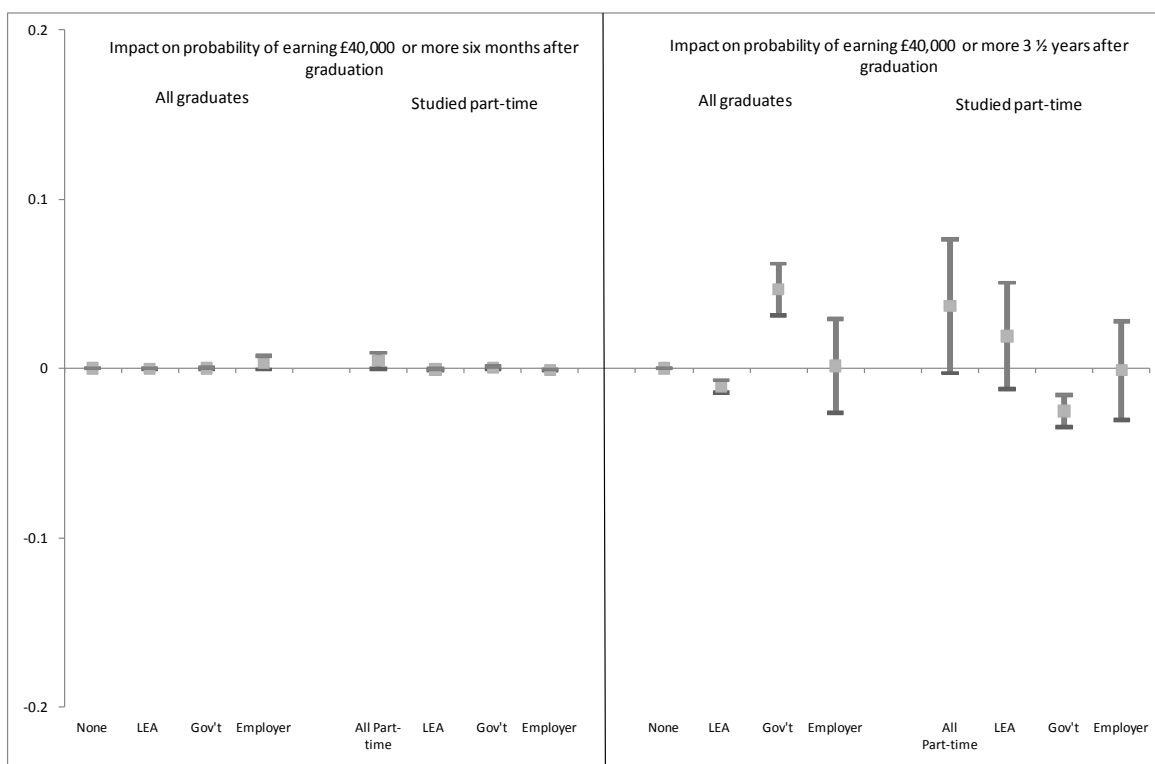
Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

Marginal effects from regression model reported in Appendix tables A.6

Looking at higher earnings (Figure 4.2); there was no impact of employer fee support on the probability of earning more than £40,000 per annum.

Graduates who got help with their tuition fees from UK government sources were more likely to earn between £20,000 and £40,000 three and a half years after graduation, but not six months after graduation than those who got no help with their fees (Figure 4.1). This pattern was also evident for the probability of earning more than £40,000 per annum (Figure 4.2). The impact for part-time students was also lower than for full-time students suggesting that this form of government support was more beneficial for full-time students. Again it is important to note that these were students who had studied subjects allied to medicine so full-time study appears to have been more beneficial for these students.

**Figure 4.2 Estimated marginal effects and confidence intervals for the impact of major source of tuition fees and mode of study on the probability of earning £40,000 per annum or more six and three and a half years after graduation**



Base: UK Domiciled Undergraduate Leavers who were in full-time employment six months and three and a half years after graduation

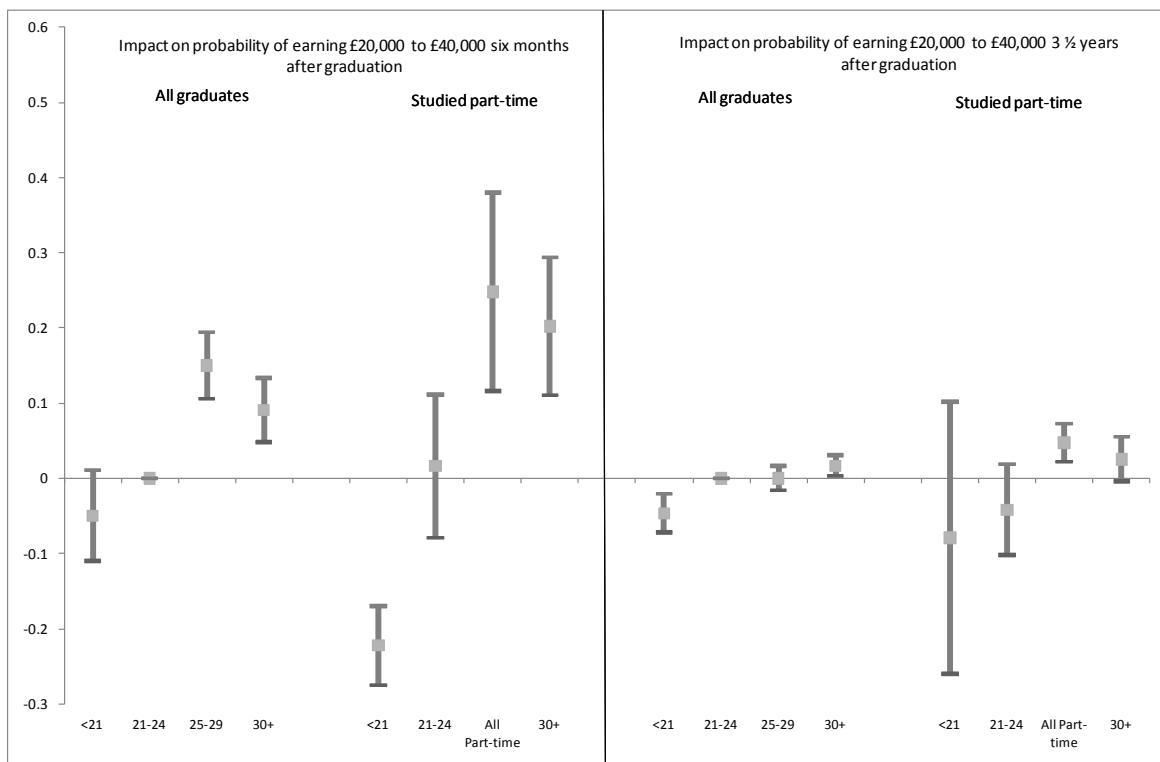
Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

Marginal effects from regression model reported in Appendix tables A.6

Conversely, getting fee support through an LEA award reduced the probability of earning between £20,000 and £40,000 and £40,000 or more for all graduates relative to getting no support. There was no difference here by mode of study. It is worth noting that LEA awards were means tested, so students who received them would have had low earnings whilst studying.

Figures 4.3 and 4.4 show that older graduates were more likely to have higher pay six months after graduation, although differences above the £40,000 per annum pay threshold were small, except for graduates aged less than 21 in their final year of study. This pattern was especially true for graduates from part-time study six months after graduation, although there are very few very young graduates from part-time study. This difference between older graduates from part-time and full-time study persist up to three and a half years after graduation, but, in line with the overall difference between graduates from part-time and full-time study, are substantially smaller.

**Figure 4.3** Estimated marginal effects and confidence intervals for the impact of age and mode of study on the probability of earning £20,000 to £40,000 per annum six months and three and a half years after graduation

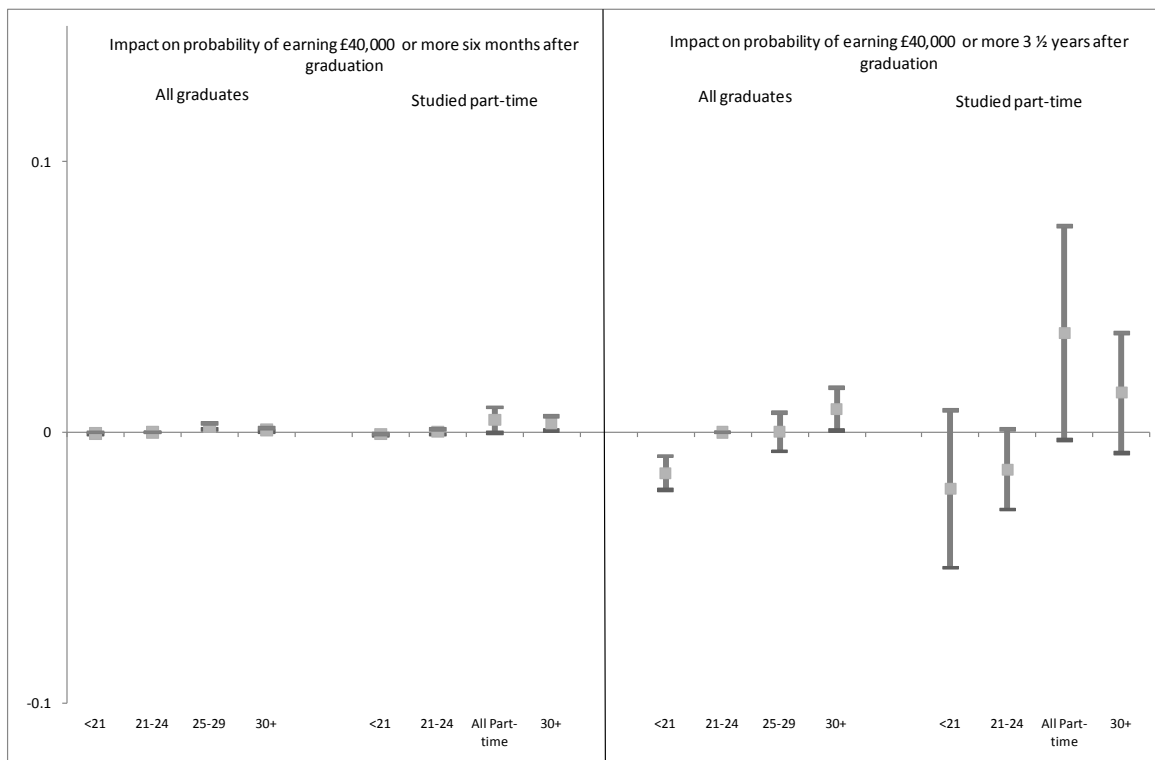


Base: UK Domiciled Undergraduate Leavers who were in full-time employment six months and 3 1/2 years after graduation

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

Marginal effects from regression model reported in Appendix tables A.6

**Figure 4.4** Estimated marginal effects and confidence intervals for the impact of age and mode of study on the probability of earning £40,000 per annum or more six and three and a half years after graduation



*Base: UK Domiciled Undergraduate Leavers who were in full-time employment six months and three and a half years after graduation*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

*Marginal effects from regression model reported in Appendix tables A.6*



## 4.2 Changing salary band six months to three and a half years after graduation

Finally we consider the change in salary levels. This is complicated by the fact that the salary data we have is only available in salary bands. Given this we estimate the probability of moving up a salary band. Clearly, graduates who were already in the top salary band cannot move up a salary band, so graduates with salary of £50,000 or more per annum six months after graduation are omitted from this analysis. Moving up a salary band may not constitute a big rise in earnings. At the extreme, an employee can move from the top of one band to the bottom of the next band having experienced a salary increase of just one penny. However, we would expect salaries to be reasonably evenly distributed with salary bands at both points in time, so that we would expect, on average, a move in bands would constitute a significant increase in earnings. For this analysis we exploit the full ten salary bands, so that each band represents a range of £5,000.

**Table 4.2 Probability of moving up a pay band between six months and three and a half years after graduation**

	Estimated marginal effects	
Studied part-time	-0.120*** (0.020)	-0.099*** (0.029)
Control Variables included	No	Yes
Log pseudo-likelihood	-2,951.6	-2,704.8
Observations	8,048	8,048

*Base: UK Domiciled Undergraduate Leavers who were employed six months and three and a half years after graduation*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

*Robust standard errors in parentheses*

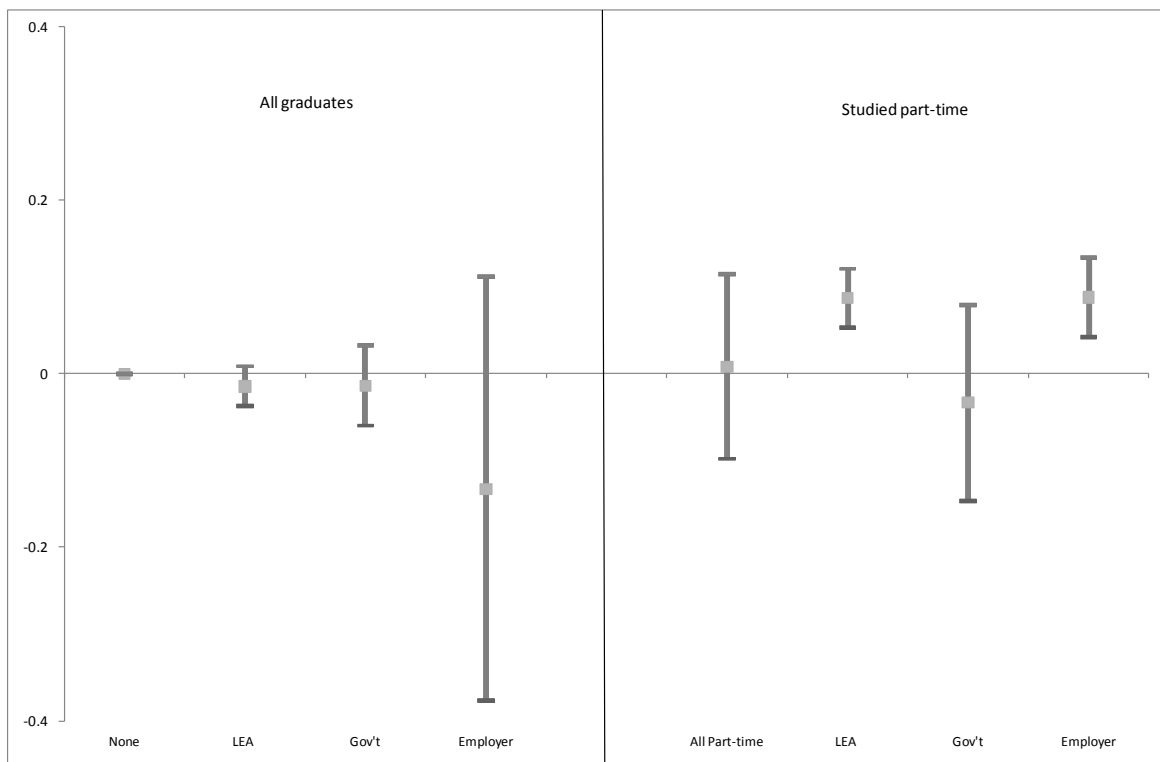
*\*\*\* indicates significant at 1%; \*\* indicates significant at 5%; \* indicates significant at 10%*

*Marginal effects from regression model reported in Appendix tables A.7*

Table 4.2 indicates that graduates from full-time study were more likely to have moved up a pay band than graduates from part-time study. The difference when we do not include any other control variables was 12 percentage points, but once we include our standard control variables this falls to 10 percentage points.

Figure 4.5 shows that, overall the source of fee payment did not have an impact on moving up a salary band. However, graduates from part-time study who received money for fees from their LEA or their employer were much more likely to move up a salary band than graduates from full-time study who received money for fees from the same sources. This indicates that government and employer investment in part-time study has a pay-off for these students between six months and three and a half years after graduation, helping them to move up the salary distribution more than for full-time students. This may reflect that employers provide support for employees that they are confident will be able to progress in their jobs and that low-income students receiving government support who study part-time may better be able to progress in their jobs through study that is typically related to the job that they are doing.

**Figure 4.5** Estimated marginal effects and confidence intervals for the impact of major source of tuition fees and mode of study on the probability of moving up a salary band between six months and three and a half years after graduation



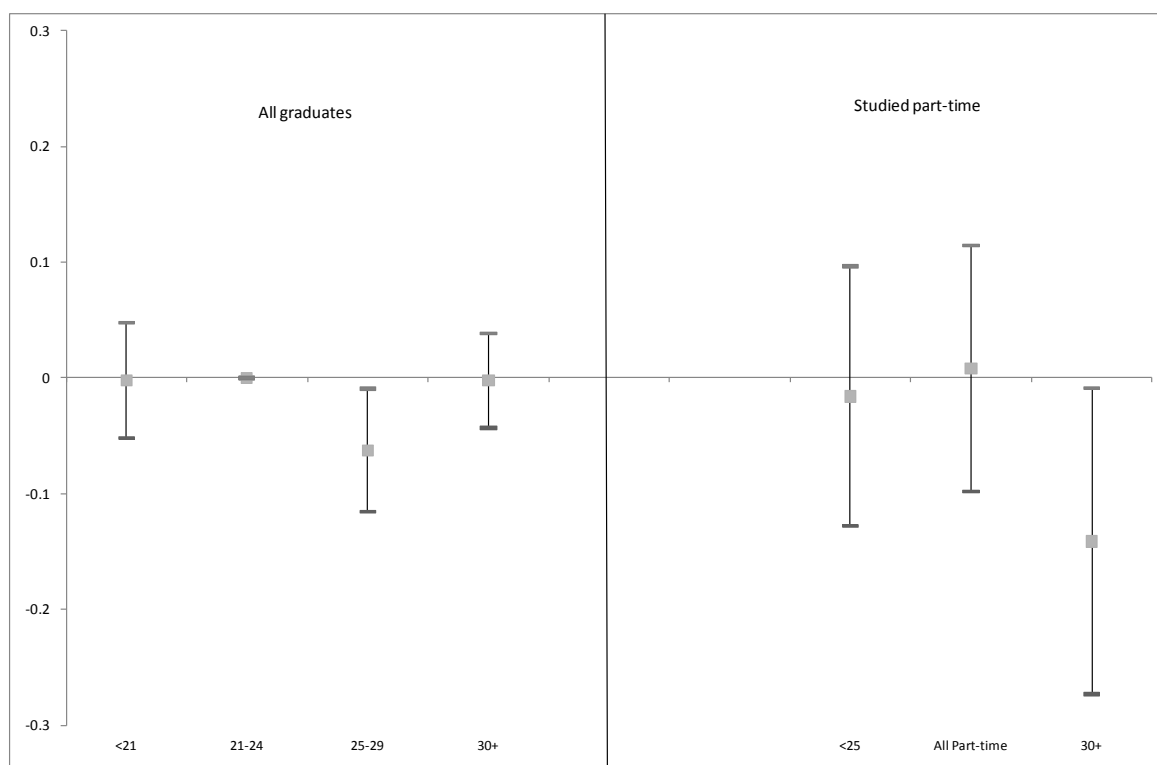
Base: UK Domiciled Undergraduate Leavers who were employed or unemployed and looking for work 6(42) months after graduation

Marginal effects from regression model reported in Appendix table A.5

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

Figure 4.6 shows the only other significant interaction, which was between mode of study and age. Here graduates aged 25 to 29 were less likely to have moved up a salary band and graduates from part-time study who were aged 30 or more were also less likely to have moved up a salary band than graduates from full-time study of the same age.

**Figure 4.6** Estimated marginal effects and confidence intervals for the impact of major source of age and mode of study on the probability of moving up a salary band between six months and three and a half years after graduation



Base: UK Domiciled Undergraduate Leavers who were employed or unemployed and looking for work 6(42) months after graduation

Marginal effects from regression model reported in Appendix table A.5

## 5 Summary and policy implications

There is a large body of research demonstrating the positive employment and wage effects of full-time undergraduate study. However, as discussed in the introduction, the existing evidence on the impact of lifelong learning – most of which is likely to be undertaken as part-time study – is mixed. Blandon *et al* (2010) show how it can take five years for men and four years for women to reap the financial benefits of lifelong learning qualifications. Although the methodology of their study was different to the present study, these findings are significant. They suggest that it is more important to examine the labour market experiences of graduates of part-time study three and a half years after graduation rather than six months after graduation. In addition, research (Purcell *et al*, 2005) on graduate employment from full-time study suggests that it takes several years for graduates to settle into their careers and to obtain ‘graduate’ jobs. It is for these reasons that the following discussion will emphasise the findings regarding the destinations of graduates three and a half years after finishing their undergraduate studies.

It is also important to recall that the analysis only includes people who had completed their qualification. Hence, labour market outcomes for graduates from part-time study were assessed relative to graduates from full-time study. No comparison can be made relative to those that did not study at all.

Our multivariate analysis of both the employment and pay effects of study (Chapters 3 and 4) acknowledges important differences in student characteristics and attempts to control for them. The analysis, therefore, seeks to identify the key factors determining any differences in the labour market experiences of graduates from part- and full-time study having controlled for their differing characteristics and circumstances. The multivariate analysis was restricted to those graduates who were economically active. The key findings and policy implications are discussed in relation to the policy objectives discussed in section 1.4.1 of the report.

## 5.1 Employment effects on graduation of studying part and full-time

The vast majority of graduates who studied either part-time or full-time as undergraduates were in paid employment both six months and three and a half years after they graduated from higher education (Tables 2.1 and 2.5). However, six months after graduation, a higher proportion of graduates who had studied part-time (84%) than full-time (71%) were in paid employment. This was partly because graduates from part-time study were more likely to be employed at the outset of their studies, unlike graduates from full-time study many of whom were new labour market entrants, and partly because fewer part-time than full-time graduates undertook full-time postgraduate study after graduation. Yet, three and a half years after graduation the paid employment rates of both graduates who had studied part- and full-time were the same (88%) – although twice as many graduates from part-time study as graduates from full-time study worked part-time (14% compared with 6%).

Unemployment rates of just 3% were also the same for both groups of graduates three and a half years after leaving higher education. In essence, graduates who had studied full-time had caught up with their colleagues who had studied part-time primarily because fewer had continued studying full-time three and a half years after graduation, and instead had found paid work.

Multivariate analysis that focused only on the economically active produced similar findings. The raw difference in employment rates six months after graduation was four percentage points, a difference that was reduced to three percentage points once we controlled for the observed differences in characteristics of graduates from part-time and full-time study. This difference in employment rates was not present three and a half years after graduation (Table 3.1).

Whilst the mode of study had little impact on the probability of being employed three and a half years after graduation there were differences by mode of study in the characteristics of these jobs.

The majority of graduates, irrespective of their mode of study while undergraduates, worked in the top three occupation categories: Managers and Senior Officials, Professional occupations and Associate Professional and Technical occupations (Figure 2.1). This was the case for 83% and 70% of employed graduates from part-time and full-time study respectively, six months after graduation. Three years later the corresponding figures were 77% and 73%. Hence, not only did graduates from full-time study catch up with graduates from part-time study, in terms of their employment rates, but the gap in terms of the percentage of employees in the top three occupation categories narrowed considerably. Much of the difference was explained by a fall in the percentage of graduates from part-time study in Professional occupations compared with a rise for full-time graduates. This may be because graduates from full-time study were more likely to have continued to study full-time and hence in this time period acquired postgraduate qualifications allowing them access to these jobs.

There were differences in other characteristics of the jobs held by graduates who had studied part- and full-time three and a half years after they had graduated. Most notable was the higher proportion of graduates from part-time study who worked in the public sector, namely in Public Administration, Education and Health and Social Work (59%) compared with those who had studied full-time (44%) (Figure 2.2).

Another important difference was that undergraduates who had studied part-time were more likely than those who had studied full-time to have permanent jobs both six months and three and a half years after leaving higher education (Figure 2.3). Although the gap between graduates from part-time and full-time study narrowed over time, after three and a half years a higher percentage of graduates from part-time study than full-time study were still in permanent employment (87% compared with 79%).

The focus of the remaining employment analysis was to see if differences between graduates from full-time and part-time study, in terms of their employment probability, were related to some key characteristics of these graduates.

Important differences were found in terms of the major source of tuition fees, the age of the graduates and their qualification levels when they started their course. Overall graduates whose major source of tuition fees was central government, typically to study subjects allied to medicine, were more likely to be employed than graduates who received no help with their fees, whilst graduates whose major source of tuition fees was an LEA award were less likely to be employed. Employer support with fees was more important for part-time students than full-time students, but this was only true six months after graduation and was not the case three and a half years after graduation.

Older graduates were less likely to be employed than younger graduates, but the data did not allow a fine disaggregation by age with older graduates limited to those aged 30 or more. There may be differences within this age group. Differences in employment probabilities between graduates from part-time and full-time study by age and motivations to study were typically small and did not persist at three and a half years after graduation.

Overall, there was no impact of entry qualifications on employment chances six months or three and a half years after graduation, but for graduates from part-time study relative to graduates from full-time study entry qualifications mattered. Graduates from part-time study who were re-skilling (those who already had a Level 4 or 5 qualification) had higher employment rates six months after graduation than similar graduates from full-time study. This remained the case at three and a half years after graduation.

In addition, three and a half years after graduation, graduates from part-time study who were up-skilling (entered HE with a qualification below Level 3) also had higher employment rates than those who entered full-time HE with similar qualifications. This difference was not evident six months after graduation. Hence, in terms of being in employment there were benefits from part-time study relative to full-time study both for students who were up-skilling and re-skilling.

## 5.2 Wage effects on graduation of studying part and full-time

Graduates from part-time study in full-time employment earn more on average than graduates from full-time study both six months and three and a half years after graduation. For example, six months after graduation almost two-thirds of graduates from part-time study earned more than £20,000 compared with just under a quarter of graduates from full-time study (Figure 2.5). Three years later the gap had narrowed considerably (84% compared with 73%), but those graduating from part-time study remained more likely to be more highly paid.

In line with the employment analysis, differences in characteristics of these graduates determine some of these pay differences between graduates from part-time and full-time study. The difference in the percentage of graduates earning more than £20,000 per annum six months after graduation fell from more than 40% to 20% once we control for graduate characteristics and the characteristics of their jobs. Similarly at three and a half years after graduation the raw difference in the percentage of graduates earning more than £20,000 per annum fell from around 10% to just over 3% (Table 4.1).

Although graduates from part-time study earn more than their peers from full-time study, they are less likely to experience a salary increase that moves them up a pay band between six months and three and a half years after graduation (Table 4.2). Consequently part-time graduate salaries grew at a slower pace than those of full-time graduates although their enhanced skills remain economically valuable. Overall, 78% of graduates from part-time study saw a rise in their salaries that took them up a salary band, 16% experienced no change while 6% saw a drop in their salaries. The equivalent proportions for graduates of full-time study were 88%, 8% and 2% (Table 2.9). This may be because more part-time than full-time students had undertaken vocational rather than purely academic qualifications (Table 1.3) with vocational qualifications associated with lower wage returns compared with academic qualifications (Garett *et al*, 2010). However, the fact that graduates from part-time study were already more likely to be high earners will also limit their capacity to move up salary bands.



The factors which impact on graduates' pay were largely similar to those for whether they were in employment. Graduates who received employer support with their tuition fees were more likely to be higher earners six months after graduation than graduates who received no help. However, in terms of their pay this was largely the case for graduates from full-time rather than part-time study. These differences were not evident three and a half years after graduation.

Government support with fees was also important in terms of graduate pay. Here, graduates from part-time study who received an LEA award fared better than graduates from full-time study, but the opposite was the case for part-time graduates who received fee support from other government sources. Graduates receiving such awards were typically studying subjects allied to medicine so our analysis indicated that full-time study rather than part-time study helped these students in terms of pay progression following graduation.

The age pattern in terms of pay was stronger than for employment probabilities. Older graduates were more likely to be higher earners than younger graduates and this was particularly true for older part-time graduates.

In terms of sources of tuition fee support, in line with pay levels three and a half years after graduation, receiving an LEA award meant a higher probability of moving up a pay band for graduates from part-time study than those from full-time study. In addition, having employer support with fees was associated with moving up the pay bands for part-time graduates relative to full-time graduates. Interestingly this was not reflected in our assessment of pay levels, but the finer disaggregation of salaries considered here did identify an impact of employer fee support for graduates from part-time study.

Older graduates (aged 25 to 29) were less likely to experience a salary increase that moved them up a pay band than younger graduates, but this was only the case for graduates who had studied part-time and who were aged 30 or more (Figure 4.6). Again this reflects findings from other research which shows the earnings growth of older graduates is lower than that of younger graduates (Purcell *et al*, 2007). According to Purcell *et al* (2007), the slow growth cannot be explained by the type of work they obtain nor their socio-economic characteristics. She suggests that her finding is indicative of employers not necessarily rewarding the enhanced skills of their older employees.

Graduates' qualifications on entry to university have no impact on the probability of salary growth, indicating no difference in the propensity to move up the pay distribution for graduates who re-skilled or up-skilled. Blundell *et al* (1999) argue that skills degrade over time and so negatively affect the wage returns they attract. Hence skills need to be maintained and refreshed to maintain a financial advantage. In this study all the individuals had recently completed a qualification, so the impact of re-skilling compared to not re-skilling could not be assessed.

### **5.3 Implications for policy**

In the introduction, we identified a series of policy areas which have dominated much debate about higher education and part-time study in particular. Our analysis helps to shed some light on the contribution of part-time study compared to full-time study in meeting the following policy objectives:

- Re-skilling and up-skilling the current workforce – including the objectives of
  - Creating more flexible and diverse HE provision
  - Improving social mobility
- Who should pay for improving higher level skills – including the objectives of
  - Increasing individual investment, enabled by more government-funded student financial support
  - Encouraging more employer funded support for higher education provision

#### **Re-skilling and up-skilling the current workforce**

Overall, our analysis highlights the importance of part-time study in the supply of skills. Part-time HE study plays a significant part in raising, updating, and improving the skills levels of people already in employment and ensuring they possess the skills and qualifications required by employers, especially in the public sector. It enhances the employment prospects for students with high level entry qualifications who are mainly re-skilling, and those with low-level entry qualifications who primarily are up-skilling.

Our analysis indicates higher employment rates for graduates from part-time relative to full-time study for students who re-skilled and complete a qualification at the same level as they possess already. We also find higher levels of employment from part-time study compared with full-time study among people who are up-skilling and start of their course of study with relatively low level qualifications. In turn, this helps fulfil the policy objective of increasing social mobility and widening HE participation.

Although part-time study clearly allows for more flexible and diverse HE provision and for employees to combine studying with employment, there is no evidence that it is particularly beneficial as an alternative to full-time study for young people. In addition, there is mixed evidence in relation to the impact of part-time study on HE in terms of widening participation and improving social mobility at least with regards to the age of the student. Older graduates from part-time study fare worse in terms of employment and pay progression than older graduates from full-time study, suggesting that part-time study does not reap rewards relative to full-time study for a more diverse population of students in terms of age.

### **Who should pay for improving higher level skills**

The study helps inform the debate regarding who should pay for improving higher level skills. It highlights the importance of different sources of tuition fee support for students in terms of the private returns to study for part-time students relative to full-time students. As will be recalled, those most likely to receive financial support with their tuition fees from their employer are re-skilling while those depending on government-funded aid are up-skilling and enter higher education with lower level entry qualifications.

The enhanced employment prospects of graduates of part-time study receiving financial support for their tuition fees from their employer – mostly in the public sector - is short-lived and there is little evidence of an impact of employer support for part-time study on pay levels. However, pay progression was stronger for graduates from part-time study than full-time study. This could reflect enhanced productivity and indicates that employers value the returns they get from their investment in part-time study. Consequently, further encouragement of employer support for part-time study is likely to reap benefits for both employees and their employers. However, in the current economic climate public sector training budgets are potentially at risk which limits the extent of employer support. The availability of government-funded fee loans for some part-time students to replace employer funding of fees from 2012/13 may help to maintain the role of part-time study in skill development for those employees without a Level 4 qualification.

In contrast, the study found that Government funding, largely for students studying medicine and subjects allied to medicine (subjects that are of strategic importance for the health and well-being of the population), resulted in better employment prospects relative to students getting no fee support, albeit offset by a lesser chance of being a high earner if the graduate had studied part-time. This finding may reflect the fact that the subjects covered by this type of fee support have well established and clear employment pathways. However, the finding in relation to pay reflects that most graduates of full-time study studied medicine and entered relatively high paying medical occupations while most graduates of part-time study entered lower-paying professions allied to medicine. Government support for people studying strategically important subjects with relative low private returns can play a crucial role in ensuring that there are sufficient numbers of suitably skilled people in the economy, although care is needed to ensure that there is not an over-supply of people with these skills that may reduce the private return further.

For the more widely available LEA awards, employment prospects were on the whole lower compared with other sources of financial help with tuition. However, this form of government-funded support yielded greater benefits to graduates from part-time study relative to full-time study in terms of pay progression and levels of pay three and a half years after graduation. It is important to recall that these awards were means tested, so the study provides evidence that supporting low-income or low paid individuals to acquire new skills by studying part-time through such awards does allow them to progress up the earnings distribution, and in turn, furthers the policy objective of increasing social mobility.

This provides evidence of the financial benefits accruing from part-time HE study and of the positive impact of making it more affordable via government-funded financial support. The findings endorse the Westminster coalition government's strategy of improving access to, and the level of, financial support for part-time study, especially for low-income individuals with low-level qualifications wishing to up-skill. It is important to note that these students are less likely to receive employer support and, because of their low income, may be constrained in terms of paying for their studies out of their current income or borrowing from commercial lenders. Thus having access to government support addresses both liquidity constraints and a market failure. The funding can enable them to study and achieve returns that otherwise would not have been available to them.

Student loans are predicated on the principle that those who benefit from higher education should contribute towards its costs, and the assumption that participants of higher education will reap some private returns in terms of their employment prospects and higher wages on graduation. The findings of this study suggest that the government's provision of student loans for part-time students from 2012/13 for those without a Level 4 qualification is justified in terms of: the private and public returns to such an investment; and on the grounds of equity by increasing social mobility both for those entering part-time study with low-level qualifications and for those with low-incomes in receipt of government-funded LEA awards. The study found higher employment rates for graduates from part-time study who entered HE without a Level 3 qualification compared with similar full-time peers as well as higher rates of pay progression for graduates from part-time study in receipt of LEA awards compared with similar full-time peers.

Together, these findings also help validate the policy principle underpinning who should qualify for student financial support and student loans. Namely, that at a time of public expenditure constraints, the government's limited resources should focus on the most disadvantaged in the labour market, those with the least human capital, without prior experience of higher education, and wanting to up-skill. The eligibility criteria for student financial support and student loans, therefore, prioritise those with low levels of prior qualifications who are up-skilling and employees who are less likely to receive employer support rather than more highly skilled individuals who are re-skilling and are more likely to attract employer support for their studies. The policy imperative is to ensure that this first group are not disadvantaged in seeking to improve their skills through part-time study rather than full-time provision.

However, this priority may be at odds with the government's skills agenda of up-skilling the existing labour force. This is especially the case where there are skill shortages, and for those who are recently unemployed, women who have had a career break and want to return to work, or others who find that the skills they acquired at the age of 18–21 are no longer appropriate or sufficient to get a job or develop their careers but cannot access employer help.

In turn, the findings have implications about the ability of future part-time students to repay any loans they may take out, and the speed of their loan repayments. The higher pay levels of graduates from part-time study along with when part-time students have to begin their loan repayments, suggest that a higher proportion will start repaying their loans earlier than graduates of full-time study, and they will repay them at a faster rate than graduates from full-time study. In addition, part-timers are more likely than graduates of full-time study to repay loans commanding the highest interest rate of inflation plus 3%, because more earn over £41,000.

Both the speed of loan repayments and the higher interest rate paid on the loans by graduates of part-time study are to the benefit of the Exchequer and make their loans cheaper than those for graduates of full-time study. This is because there is less scope for graduates of part-time study, compared with graduates of full-time study, to benefit from government funded student loan subsidies. These subsidies count as public expenditure and as a permanent cost to the taxpayer. Indeed, the loan repayments from the highest earning graduates from part-time study, which attract the highest interest rates, may actually help to reduce the levels of loan subsidy because these interest rates are higher than the interest rate on the government cost of borrowing. However, our evidence is limited to a period just three and a half years after graduation and loan repayments can take up to 30 years.

Moreover, graduates of part-time study usually acquire their qualification later in life, and thus reduce the time over which they can benefit financially from their new qualification. The positive wage effects for graduates of part-time study reported here are retrospective and only relate to a relatively short period of time after graduation. They are not necessarily a good indicator of future earnings, especially at a time of wage constraint and when graduate wage premiums are widening. The future earnings of the graduates in our study could fall, stagnate, or rise and grow more rapidly. If they fall, then there is a possibility that some of their loans will have to be written off which represents a cost to the Exchequer. This is probably less likely to happen among graduates from part-time study than among graduates from full-time study. This is because part-timers will take out smaller student loans as they are ineligible for loans for living costs, and those taking a First degree will start to repay them while still studying. Moreover, as Blandon *et al* (2010) suggest, it takes time for individuals to reap the financial benefits of lifelong learning qualifications and this study may not have captured the full employment and wage effects of part-time higher education, or of full-time higher education.

To conclude, there were significant employment advantages to those who improve their skills by upgrading their current qualifications, and especially for those who obtain new skills but without a qualification upgrade. There are financial benefits to the skills acquired through part-time higher education study that are evident for individuals, which can benefit employers and the wider economy in the same way as these benefits are evident for those graduating from full-time study. There are also substantial non-monetary benefits to study not covered in this particular study (Jamieson *et al*, 2009). The contribution of graduates from part-time study to economic prosperity, particularly in relation to earnings, exceeds that of graduates from full-time study in the relatively short period of time under consideration – up to three and a half years after students graduated. The Westminster coalition government's decision to extend student loans to part-time students seems a wise one, if it opens up more opportunities for employees to enter part-time higher education.

## Appendix Tables

**Table A.1 The probability of being employed six months after graduation**

	Marginal effect (robust standard error)	Marginal effect (robust standard error)	Marginal effect (robust standard error)
Studied part-time	0.040*** (0.005)	0.030*** (0.007)	0.041** (0.016)
<hr/>			
Highest qualification on entry (relative to Level 3)			
Level 4 or 5		-0.004 (0.007)	-0.013 (0.008)
Level 2 or below		0.006 (0.008)	0.008 (0.009)
Studied part-time interacted with entry qualifications:			
Level 4 or 5			0.032*** (0.010)
Level 2 or below			-0.003 (0.023)
<hr/>			
Age (relative to 21 to 24)			
Less than 21		-0.019 (0.013)	-0.017 (0.013)
25 to 29		-0.002 (0.008)	-0.003 (0.008)
30 or more		-0.022** (0.009)	-0.030*** (0.010)
Studied part-time interacted with age:			
Aged less than 21			-0.146 (0.123)
Aged 21-24			-0.044 (0.039)
Aged 30 or more			0.011 (0.019)
<hr/>			
Major source of tuition fees (relative to paid own fees)			
No fees payable		-0.072* (0.041)	-0.003 (0.033)
LEA		-0.009* (0.005)	-0.007 (0.005)
Other government		0.046*** (0.006)	0.044*** (0.006)
Employer		0.048*** (0.006)	0.028 (0.018)
Other		0.024* (0.014)	0.016 (0.018)
Studied part-time interacted with major source of tuition fees:			
No fees payable			-0.137 (0.104)
LEA			-0.026 (0.031)
Other government			-0.003 (0.038)
Employer			0.047*** (0.010)
Other			0.025 (0.022)



	Marginal effect (robust standard error)	Marginal effect (robust standard error)	Marginal effect (robust standard error)
<b>Part-time students motivations for study</b>			
To get on in career			-0.001 (0.020)
To change career			-0.027 (0.038)
Other reasons			-0.060* (0.032)
<b>Other personal characteristics:</b>			
Female	0.024*** (0.004)		0.023*** (0.004)
Ethnicity (relative to White)			
Black	-0.057*** (0.011)		-0.053*** (0.011)
Asian	-0.045*** (0.008)		-0.041*** (0.008)
Other	-0.030*** (0.009)		-0.027*** (0.009)
Has a disability	-0.040*** (0.009)		-0.037*** (0.008)
Distance learner	0.020 (0.017)		0.016 (0.019)
<b>Type of institution attended (relative to Post 1992)</b>			
Pre 92	0.013*** (0.005)		0.012** (0.005)
1994 Group	0.009 (0.007)		0.007 (0.006)
Russell Group	0.015*** (0.005)		0.012** (0.005)
<b>Qualification characteristics:</b>			
Whether studying towards a first degree			0.007 (0.017)
Class of First Degree			
First class	-0.004 (0.011)		-0.004 (0.012)
Upper Second	-0.016* (0.009)		-0.015 (0.010)
Lower Second	-0.032*** (0.011)		-0.030*** (0.012)
Second	-0.043*** (0.016)		-0.041** (0.017)
Third	0.001 (0.011)		0.004 (0.011)

	Marginal effect (robust standard error)	Marginal effect (robust standard error)	Marginal effect (robust standard error)
Subject (relative to Arts and Humanities)			
Architecture building & planning		0.041*** (0.006)	0.038*** (0.006)
Science, technology, engineering & mathematics		0.010** (0.005)	0.009** (0.004)
Social Sciences		0.017*** (0.005)	0.016*** (0.005)
Pseudo R-squared	0.007	0.056	0.063
Observations	25276	25276	25276

*Base: UK Domiciled Undergraduate Leavers who were employed or unemployed and looking for work 6 months after graduation*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

*The Pseudo R-squared is an indicator of how well the model explains the variation in the probability of being employed. It ranges from 0 to 1, with higher values indicating better model fit.*

*\*\*\* indicates significant at 1%; \*\* indicates significant at 5%; \* indicates significant at 10%*

**Table A.2 The probability of being employed 3½ years after graduation**

	Marginal effect (robust standard error)	Marginal effect (robust standard error)	Marginal effect (robust standard error)
Studied part-time	0.002 (0.005)	-0.007 (0.006)	-0.025 (0.028)
Highest qualification on entry (relative to Level 3)			
Level 4 or 5		0.004 (0.004)	0.001 (0.004)
Level 2 or below		0.003 (0.005)	-0.001 (0.007)
Studied part-time interacted with entry qualifications:			
Level 4 or 5			0.012** (0.005)
Level 2 or below			0.014*** (0.005)
Age (relative to 21 to 24)			
Less than 21		0.003 (0.004)	0.005 (0.003)
25 to 29		-0.016** (0.007)	-0.015** (0.007)
30 or more		-0.022*** (0.006)	-0.021*** (0.006)
Studied part-time interacted with age:			
Aged less than 21			-0.108 (0.116)
Aged 21-24			0.002 (0.011)
Aged 30 or more			-0.006 (0.013)
Major source of tuition fees (relative to paid own fees)			
No fees payable		0.005 (0.006)	0.015*** (0.005)
LEA		-0.006** (0.003)	-0.005** (0.003)
Other government		0.016*** (0.004)	0.015*** (0.004)
Employer		-0.001 (0.010)	0.011 (0.010)
Other		0.005 (0.008)	-0.005 (0.014)
Studied part-time interacted with major source of tuition fees:			
No fees payable			-0.038 (0.036)
LEA			-0.018 (0.016)
Other government			0.008 (0.010)
Employer			-0.021 (0.033)
Other			0.016** (0.007)

	Marginal effect (robust standard error)	Marginal effect (robust standard error)	Marginal effect (robust standard error)
<b>Part-time students motivations for study</b>			
To get on in career			0.008 (0.008)
To change career			0.010 (0.007)
Other reasons			0.009 (0.007)
<b>Other personal characteristics:</b>			
Female		0.011*** (0.003)	0.011*** (0.003)
Ethnicity (relative to White)			
Black		-0.022*** (0.007)	-0.022*** (0.007)
Asian		-0.019*** (0.005)	-0.019*** (0.005)
Other		-0.028*** (0.007)	-0.028*** (0.007)
Has a disability		-0.015*** (0.005)	-0.014*** (0.004)
Distance learner		0.001 (0.008)	0.004 (0.007)
<b>Type of institution attended (relative to Post 1992)</b>			
Pre 92		-0.003 (0.004)	-0.003 (0.004)
1994 Group		0.003 (0.004)	0.002 (0.004)
Russell Group		0.002 (0.003)	0.002 (0.003)
<b>Qualification characteristics:</b>			
Whether studying towards a first degree			0.002 (0.008)
Class of First Degree			
First class		0.008* (0.004)	0.007 (0.004)
Upper Second		0.007* (0.004)	0.005 (0.004)
Lower Second		0.004 (0.004)	0.003 (0.004)
Second		0.003 (0.005)	0.002 (0.005)
Third		0.010*** (0.004)	0.009** (0.004)
Subject (relative to Arts and Humanities)			
Architecture building & planning		-0.005 (0.007)	-0.005 (0.008)
Science, technology, engineering & mathematics		0.002 (0.003)	0.002 (0.003)
Social Sciences		0.004 (0.003)	0.004 (0.003)

	Marginal effect (robust standard error)	Marginal effect (robust standard error)	Marginal effect (robust standard error)
Employment characteristics six months after graduation:			
Activity status (relative to employed full-time)			
Employed part-time		-0.002 (0.004)	-0.002 (0.004)
In voluntary employment		-0.004 (0.009)	-0.003 (0.009)
Unemployed		-0.050 (0.035)	-0.049 (0.035)
Inactive		-0.018 (0.020)	-0.018 (0.020)
Whether employed before or during study (relative to not employed):			
Employed before study only		0.011** (0.004)	0.010** (0.004)
Employed during study only		0.006 (0.004)	0.006 (0.004)
Employed before & during study		0.009** (0.004)	0.009** (0.004)
In permanent job		0.008*** (0.003)	0.008*** (0.003)
Employer has < 50 employees		-0.014** (0.006)	-0.013** (0.005)
Employer has 50-249 employees		-0.009 (0.006)	-0.008 (0.006)
Employer has 250 or more employees		-0.012*** (0.004)	-0.012*** (0.004)
Industry and Occupation variables included	No	Yes	Yes
Pseudo R-squared	0.001	0.092	0.096
Observations	29658	29658	29658

Base: UK Domiciled Undergraduate Leavers who were employed or unemployed and looking for work 3½ years after graduation

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

The Pseudo R-squared is an indicator of how well the model explains the variation in the probability of being employed. It ranges from 0 to 1, with higher values indicating better model fit.

\*\*\* indicates significant at 1%; \*\* indicates significant at 5%; \* indicates significant at 10%

**Table A.3 The probability of being employed 3½ after graduation given unemployed six months after graduation**

	Marginal effect (robust standard error)	Marginal effect (robust standard error)	Marginal effect (robust standard error)
Studied part-time	-0.118*** (0.031)	-0.069** (0.031)	-0.069 (0.126)
Highest qualification on entry (relative to Level 3)			
Level 4 or 5		0.016 (0.018)	0.008 (0.020)
Level 2 or below		0.010 (0.024)	0.001 (0.028)
Studied part-time interacted with entry qualifications:			
Level 4 or 5			0.055* (0.029)
Level 2 or below			0.052 (0.035)
Age (relative to 21 to 24)			
Less than 21		0.031* (0.016)	0.037*** (0.014)
25 to 29		-0.074** (0.032)	-0.080** (0.035)
30 or more		-0.073*** (0.024)	-0.064*** (0.025)
Studied part-time interacted with age:			
Aged less than 21			-0.411* (0.242)
Aged 21-24			-0.023 (0.071)
Aged 30 or more			-0.114 (0.096)
Major source of tuition fees (relative to paid own fees)			
No fees payable		0.051* (0.027)	0.058 (0.035)
LEA		-0.030** (0.012)	-0.027** (0.012)
Other government		0.015 (0.039)	0.012 (0.042)
Employer		-0.114 (0.093)	0.038 (0.060)
Other		-0.006 (0.053)	-0.035 (0.072)
Studied part-time interacted with major source of tuition fees:			
No fees payable			-0.052 (0.109)
LEA			-0.067 (0.070)
Other government			-0.033 (0.104)
Employer			-0.184 (0.190)
Other			0.073* (0.043)

	Marginal effect (robust standard error)	Marginal effect (robust standard error)	Marginal effect (robust standard error)
<b>Part-time students motivations for study</b>			
To get on in career			-0.071 (0.089)
To change career			0.034 (0.044)
Other reasons			0.043 (0.039)
<b>Other personal characteristics:</b>			
Female		0.042*** (0.011)	0.042*** (0.011)
Ethnicity (relative to White)			
Black		-0.042* (0.022)	-0.044** (0.022)
Asian		-0.051*** (0.018)	-0.053*** (0.018)
Other		-0.091*** (0.023)	-0.094*** (0.023)
Has a disability		-0.035** (0.016)	-0.034** (0.016)
Distance learner		-0.024 (0.072)	0.015 (0.059)
<b>Type of institution attended (relative to Post 1992)</b>			
Pre 92		-0.008 (0.016)	-0.007 (0.016)
1994 Group		0.025 (0.016)	0.025 (0.016)
Russell Group		0.026* (0.014)	0.027* (0.014)
<b>Qualification characteristics:</b>			
Whether studying towards a first degree		0.031 (0.038)	0.031 (0.017)
Class of First Degree			
First class		0.024 (0.021)	0.016 (0.022)
Upper Second		0.001 (0.017)	-0.007 (0.018)
Lower Second		-0.021 (0.019)	-0.030 (0.020)
Second		-0.038 (0.031)	-0.048 (0.033)
Third		-0.009 (0.031)	-0.025 (0.035)

	Marginal effect (robust standard error)	Marginal effect (robust standard error)	Marginal effect (robust standard error)
<hr/>			
Subject (relative to Arts and Humanities)			
Architecture building & planning		-0.022 (0.035)	-0.029 (0.037)
Science, technology, engineering & mathematics		0.009 (0.012)	0.010 (0.012)
Social Sciences		0.015 (0.016)	0.015 (0.016)
<hr/>			
Pseudo R-squared	0.008	0.052	0.058
Observations	8361	8361	8361
<hr/>			

*Base: UK Domiciled Undergraduate Leavers who were employed or unemployed and looking for work 3½ years after graduation and unemployed six months after graduation*

*Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort*

*The Pseudo R-squared is an indicator of how well the model explains the variation in the probability of being employed. It ranges from 0 to 1, with higher values indicating better model fit.*

*\*\*\* indicates significant at 1%; \*\* indicates significant at 5%; \* indicates significant at 10%*



**Table A.4 Ordered probit estimates for the probability of earning in salary bands: less than £20,000, £20,000-£40,000 and £40,000 or more six months after graduation**

	Estimated Coefficients (robust standard error)	Estimated Coefficients (robust standard error)	Estimated Coefficients (robust standard error)
Studied part-time	1.070*** (0.034)	0.610*** (0.059)	0.721*** (0.184)
<hr/>			
Highest qualification on entry (relative to Level 3)			
Level 4 or 5		0.210*** (0.047)	0.141** (0.060)
Level 2 or below		-0.035 (0.065)	0.036 (0.088)
Studied part-time interacted with entry qualifications:			
Level 4 or 5			0.142 (0.100)
Level 2 or below			-0.102 (0.135)
<hr/>			
Age (relative to 21 to 24)			
Less than 21		0.031* (0.016)	-0.172 (0.116)
25 to 29		-0.074** (0.032)	0.444*** (0.062)
30 or more		-0.073*** (0.024)	0.283*** (0.064)
Studied part-time interacted with age:			
Aged less than 21			-1.529* (0.829)
Aged 21-24			0.053 (0.154)
Aged 30 or more			0.589*** (0.126)
<hr/>			
Major source of tuition fees (relative to paid own fees)			
No fees payable		-0.519*** (0.146)	-0.728** (0.358)
LEA		-0.063* (0.036)	-0.057 (0.037)
Other government		-0.012 (0.062)	0.025 (0.070)
Employer		-0.063 (0.076)	0.564*** (0.169)
Other		-0.032 (0.111)	0.048 (0.164)
Studied part-time interacted with major source of tuition fees:			
No fees payable			0.301 (0.394)
LEA			-0.506* (0.261)
Other government			0.102 (0.142)
Employer			-0.765*** (0.191)
Other			-0.162 (0.223)

	Estimated Coefficients (robust standard error)	Estimated Coefficients (robust standard error)	Estimated Coefficients (robust standard error)
<b>Part-time students motivations for study</b>			
To get on in career			-0.252** (0.098)
To change career			-0.221* (0.120)
Other reasons			-0.155 (0.107)
<b>Other personal characteristics:</b>			
Female		-0.404*** (0.033)	-0.409*** (0.033)
Ethnicity (relative to White)			
Black		0.040 (0.107)	0.078 (0.108)
Asian		0.082 (0.062)	0.081 (0.062)
Other		0.017 (0.134)	0.021 (0.135)
Has a disability		-0.176*** (0.064)	-0.175*** (0.065)
Distance learner		0.491*** (0.129)	0.354*** (0.135)
<b>Type of institution attended (relative to Post 1992)</b>			
Pre 92		0.018 (0.050)	0.001 (0.050)
1994 Group		0.195*** (0.050)	0.167*** (0.051)
Russell Group		0.323*** (0.042)	0.289*** (0.042)
<b>Qualification characteristics:</b>			
Class of First Degree			
First class		0.521*** (0.068)	0.611*** (0.090)
Upper Second		0.401*** (0.059)	0.479*** (0.082)
Lower Second		0.281*** (0.062)	0.365*** (0.085)
Second		0.433*** (0.090)	0.529*** (0.108)
Third		0.907*** (0.071)	0.993*** (0.091)
Subject (relative to Arts and Humanities)			
Architecture building & planning		-0.243** (0.099)	-0.176* (0.037)
Science, technology, engineering & mathematics		0.014 (0.040)	0.023 (0.012)
Social Sciences		0.030 (0.049)	0.015 (0.016)

	Estimated Coefficients (robust standard error)	Estimated Coefficients (robust standard error)	Estimated Coefficients (robust standard error)
Employment characteristics six months after graduation: Whether employed before or during study (relative to not employed):			
Employed before study only		0.489*** (0.069)	0.485*** (0.070)
Employed during study only		0.252*** (0.040)	0.271*** (0.040)
Employed before & during study		0.362*** (0.054)	0.331*** (0.054)
In permanent job		0.305*** (0.037)	0.310*** (0.037)
Employer has < 50 employees		-0.389*** (0.045)	-0.398*** (0.045)
Employer has 50-249 employees		-0.275*** (0.049)	-0.279*** (0.049)
Employer has 250 or more employees		-0.095** (0.046)	-0.100** (0.046)
Industry, Occupation and Region variables included	No	Yes	Yes
Cut point at £20,000	0.693*** (0.015)	1.048*** (0.095)	1.121*** (0.112)
Cut point at £40,000	2.598*** (0.039)	3.475*** (0.106)	3.576*** (0.121)
Log likelihood	-6435.5	-4863.6	-4822.6
Observations	10351	10351	10351

Base: UK Domiciled Undergraduate Leavers who were employed full-time six months after graduation

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

\*\*\* indicates significant at 1%; \*\* indicates significant at 5%; \* indicates significant at 10%

**Table A.5 Ordered probit estimates for the probability of earning in salary bands: less than £20,000, £20,000-£40,000 and £40,000 or more 3½ years after graduation**

	Estimated Coefficients (robust standard error)	Estimated Coefficients (robust standard error)	Estimated Coefficients (robust standard error)
Studied part-time	0.325*** (0.028)	0.122*** (0.044)	0.334** (0.149)
Highest qualification on entry (relative to Level 3)			
Level 4 or 5		-0.047 (0.033)	-0.037 (0.038)
Level 2 or below		-0.052 (0.045)	-0.051 (0.053)
Studied part-time interacted with entry qualifications:			
Level 4 or 5			-0.011 (0.079)
Level 2 or below			0.001 (0.104)
Age (relative to 21 to 24)			
Less than 21		-0.225*** (0.049)	-0.201*** (0.050)
25 to 29		0.005 (0.039)	0.002 (0.042)
30 or more		0.136*** (0.037)	0.093** (0.042)
Studied part-time interacted with age:			
Aged less than 21			-0.313 (0.306)
Aged 21-24			-0.182 (0.119)
Aged 30 or more			0.149 (0.104)
Major source of tuition fees (relative to paid own fees)			
No fees payable		-0.015 (0.094)	0.108 (0.138)
LEA		-0.127*** (0.021)	-0.122*** (0.021)
Other government		0.310*** (0.048)	0.397*** (0.052)
Employer		0.107 (0.066)	0.016 (0.156)
Other		0.083 (0.079)	0.397*** (0.101)
Studied part-time interacted with major source of tuition fees:			
No fees payable			-0.197 (0.190)
LEA			0.187 (0.135)
Other government			-0.407*** (0.119)
Employer			-0.014 (0.174)
Other			-0.824*** (0.163)

	Estimated Coefficients (robust standard error)	Estimated Coefficients (robust standard error)	Estimated Coefficients (robust standard error)
<b>Part-time students motivations for study</b>			
To get on in career			0.037 (0.091)
To change career			-0.116 (0.113)
Other reasons			0.111 (0.095)
<b>Other personal characteristics:</b>			
Female		-0.285*** (0.020)	-0.290*** (0.020)
Ethnicity (relative to White)			
Black		-0.083 (0.069)	-0.083 (0.069)
Asian		0.110*** (0.037)	0.109*** (0.038)
Other		-0.043 (0.083)	-0.042 (0.083)
Has a disability		-0.097*** (0.037)	-0.098*** (0.037)
Distance learner		0.191* (0.106)	0.179 (0.117)
<b>Type of institution attended (relative to Post 1992)</b>			
Pre 92		0.038 (0.029)	0.037 (0.029)
1994 Group		0.211*** (0.030)	0.205*** (0.030)
Russell Group		0.357*** (0.026)	0.350*** (0.026)
<b>Qualification characteristics:</b>			
Class of First Degree			
First class		0.501*** (0.046)	0.587*** (0.053)
Upper Second		0.319*** (0.038)	0.402*** (0.045)
Lower Second		0.095** (0.039)	0.175*** (0.046)
Second		0.030 (0.055)	0.107* (0.060)
Third		0.479*** (0.050)	0.540*** (0.057)
Subject (relative to Arts and Humanities)			
Architecture building & planning		0.189*** (0.067)	0.204*** (0.037)
Science, technology, engineering & mathematics		0.011 (0.023)	0.015 (0.012)
Social Sciences		0.018 (0.030)	0.015 (0.016)

	Estimated Coefficients (robust standard error)	Estimated Coefficients (robust standard error)	Estimated Coefficients (robust standard error)
Employment characteristics six months after graduation:			
Activity status (relative to employed full-time)			
Employed part-time		-0.242*** (0.037)	-0.240*** (0.037)
In voluntary employment		-0.403*** (0.106)	-0.399*** (0.106)
Unemployed		-0.648*** (0.173)	-0.627*** (0.174)
Inactive		-0.359** (0.169)	-0.333* (0.170)
Whether employed before or during study (relative to not employed):			
Employed before study only		0.149** (0.058)	0.148** (0.059)
Employed during study only		0.014 (0.030)	0.016 (0.030)
Employed before & during study		0.362*** (0.041)	0.129*** (0.042)
In permanent job		-0.020 (0.023)	-0.019 (0.024)
Employer has < 50 employees		-0.185*** (0.033)	-0.183*** (0.033)
Employer has 50-249 employees		-0.078** (0.036)	-0.080** (0.036)
Employer has 250 or more employees		-0.119*** (0.027)	-0.120*** (0.027)
Industry, Occupation and Region variables included	No	Yes	Yes
Employment characteristics 3½ years after graduation:			
In permanent job		0.189*** (0.026)	0.191*** (0.026)
Employer has < 50 employees		-0.336*** (0.027)	-0.338*** (0.027)
Employer has 50-249 employees		-0.210*** (0.028)	-0.210*** (0.028)
Employer has 250 or more employees		-0.345*** (0.048)	-0.344*** (0.048)
Industry, Occupation and Region variables included	No	Yes	Yes
Cut point at £20,000	-0.622*** (0.010)	-1.006*** (0.068)	-0.922*** (0.072)
Cut point at £40,000	1.415*** (0.013)	1.554*** (0.068)	1.643*** (0.073)
Log likelihood	-16073.9	-12856.3	-12826.9
Observations	19368	19368	19368

Base: UK Domiciled Undergraduate Leavers who were employed full-time 3½ years after graduation

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

\*\*\* indicates significant at 1%; \*\* indicates significant at 5%; \* indicates significant at 10%

Table A.6 The probability of moving up a salary band between six months and 3½ years after graduation

	Marginal effect (robust standard error)	Marginal effect (robust standard error)	Marginal effect (robust standard error)
Studied part-time	-0.120*** (0.020)	-0.099*** (0.029)	0.008 (0.054)
Highest qualification on entry (relative to Level 3)			
Level 4 or 5		-0.004 (0.016)	-0.000 (0.018)
Level 2 or below		0.013 (0.020)	0.018 (0.025)
Studied part-time interacted with entry qualifications:			
Level 4 or 5			0.002 (0.032)
Level 2 or below			-0.013 (0.051)
Age (relative to 21 to 24)			
Less than 21		-0.005 (0.026)	-0.002 (0.025)
25 to 29		-0.051** (0.025)	-0.062** (0.027)
30 or more		-0.043** (0.020)	-0.002 (0.021)
Studied part-time interacted with age:			
Aged less than 25			-0.016 (0.057)
Aged 30 or more			-0.141** (0.068)
Major source of tuition fees (relative to paid own fees and no fees payable)			
LEA		-0.013 (0.012)	-0.014 (0.012)
Other government		-0.018 (0.022)	-0.014 (0.023)
Employer		0.026 (0.025)	-0.133 (0.125)
Other		-0.088 (0.056)	-0.022 (0.069)
Studied part-time interacted with major source of tuition fees:			
No fees payable			-0.007 (0.054)
LEA			0.087*** (0.017)
Other government			-0.033 (0.058)
Employer			0.088*** (0.023)
Other			-0.120 (0.134)

	Marginal effect (robust standard error)	Marginal effect (robust standard error)	Marginal effect (robust standard error)
<b>Part-time students motivations for study</b>			
To get on in career			-0.027 (0.037)
To change career			-0.031 (0.049)
Other reasons			0.020 (0.029)
<b>Other personal characteristics:</b>			
Female		0.005 (0.011)	0.005 (0.011)
Ethnicity (relative to White)			
Black		-0.094*** (0.028)	-0.103*** (0.029)
Asian		-0.023 (0.021)	-0.024 (0.021)
Other		-0.022 (0.021)	-0.025 (0.021)
Has a disability		0.016 (0.015)	0.014 (0.015)
Distance learner		0.032 (0.027)	0.042 (0.028)
<b>Type of institution attended (relative to Post 1992)</b>			
Pre 92		0.003 (0.014)	0.006 (0.014)
1994 Group		0.023 (0.015)	0.024 (0.015)
Russell Group		0.008 (0.013)	0.010 (0.013)
<b>Qualification characteristics:</b>			
Class of First Degree			
First class		0.024 (0.020)	0.041* (0.021)
Upper Second		0.023 (0.019)	0.048* (0.024)
Lower Second		0.000 (0.020)	0.024 (0.024)
Second		0.015 (0.026)	0.031 (0.026)
Third		0.002 (0.023)	0.023 (0.025)
Subject (relative to Arts and Humanities)			
Architecture building & planning		-0.004 (0.032)	-0.007 (0.032)
Science, technology, engineering & mathematics		0.009 (0.013)	0.008 (0.012)
Social Sciences		-0.004 (0.016)	-0.003 (0.016)



	Marginal effect (robust standard error)	Marginal effect (robust standard error)	Marginal effect (robust standard error)
Employment characteristics six months after graduation:			
Whether employed before or during study (relative to not employed):			
Employed before study only		0.027 (0.019)	0.026 (0.019)
Employed during study only		0.004 (0.013)	0.003 (0.013)
Employed before & during study		0.007 (0.016)	0.011 (0.016)
In permanent job		0.001 (0.011)	0.002 (0.011)
Employer has < 50 employees		-0.005 (0.016)	-0.008 (0.016)
Employer has 50-249 employees		-0.001 (0.016)	-0.001 (0.016)
Employer has 250 or more employees		-0.036** (0.018)	-0.037** (0.018)
Industry, Occupation and Region variables included	No	Yes	Yes
Employment characteristics 3½ years after graduation:			
In permanent job		0.063*** (0.019)	0.064*** (0.018)
Employer has < 50 employees		-0.085*** (0.019)	-0.084*** (0.019)
Employer has 50-249 employees		-0.019 (0.017)	-0.020 (0.016)
Employer has 250 or more employees		-0.050 (0.030)	-0.050* (0.030)
Industry and Occupation variables included	No	Yes	Yes
Pseudo R-squared	0.020	0.102	0.111
Observations	8048	8048	8048

Base: UK Domiciled Undergraduate Leavers who were employed six months and 3½ years after graduation

Source: Destination of Leavers from Higher Education Institutions Longitudinal Survey of the 2004/05 cohort

The Pseudo R-squared is an indicator of how well the model explains the variation in the probability of being employed. It ranges from 0 to 1, with higher values indicating better model fit.

\*\*\* indicates significant at 1%; \*\* indicates significant at 5%; \* indicates significant at 10%

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