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**HIGHER EDUCATION CREDENTIALS AND
LABOUR MARKET OUTCOMES:
EXPECTATIONS OF BUSINESS STUDENTS IN
ENGLAND AND THE CZECH REPUBLIC**

MARTINA BENEŠOVÁ

A thesis submitted to the University of Huddersfield in partial fulfilment of the requirements
for the degree of Doctor of Philosophy

The University of Huddersfield

September 2017

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Abstract

While the financial returns to education have been widely studied since the 1960s, the research on students' earnings expectations is relatively scarce. This study examines students' earnings expectations and their perceptions of the link between education and labour market outcomes.

A mixed-methods approach was adopted – questionnaires and focus groups were used for data collection. First year and final year Business students were surveyed at two universities in England and two universities in the Czech Republic. A repeated cross-sectional study design was used - the survey was conducted every year between 2011/2012 and 2014/2015. In addition, focus groups with students were carried out to supplement the survey results.

Several personal characteristics were found to influence students' expectations. Female students had lower earnings expectations and the expected gender pay gap was found to increase with work experience. The effect of gender on earnings expectations was found to be stronger in the Czech Republic. First years students expected to earn more on average compared to their final year counterparts. Ethnicity was found to be an important factor – black British and Asian British students had higher earnings expectations compared to white British students. Students from high-income families expected to earn significantly more compared to those from less affluent backgrounds.

Students expected their earnings to grow with education and experience. Students expected to earn more after graduation compared to what they would expect had they decided not to go to university. Final year English students who expected to achieve a first class honours degree had higher expectations compared with the rest of the sample. In both countries, final year students who expected to be overeducated after graduation anticipated a pay penalty. The evidence of a so-called sheepskin effect was found in final year students' expectations – they believed they would have been financially punished for leaving university during their final year. Students who intended to stay in their home regions after graduation had lower earnings expectations compared to those who were willing to relocate to the capital city or move abroad.

Students' perceptions of the link between education and labour market outcomes were evaluated in the light of human capital theory, the screening hypothesis and credentialism. Students in both countries favoured the credentialist explanations of the relationship between education and future socio-economic status. English students believed that employers prefer graduates from elite universities. On the other hand, Czech students believed that graduates from more affluent families are advantaged in the graduate labour market due to their economic capital.

This study has some implications for both policy and practice. However, while the sample size was relatively large, the results cannot be generalised to the entire population of Business students in England and the Czech Republic since non-probability convenience sampling was used to collect the data.

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I would like to dedicate this thesis to my friends and family; without their encouragement and patience, this research could not have been completed. A special thank you belongs to my partner Lukáš for taking care of our children Oliver and Bianka.

List of abbreviations

BIS	Department for Business, Innovations and Skills
ČeSU	Český statistický úřad/ Czech Statistical Office
CIPD	Chartered Institute of Personnel and Development
CZK	Czech Koruna
EU	European Union
GBP	British Pound
HE	Higher Education
HEFCE	Higher Education Funding Council for England
HEI	Higher Education Institution
HESA	Higher Education Statistics Agency
ISCED	International Standard Classification of Education
MEAG	Median Earnings after Graduation
MEAG10	Median Earnings 10 Years after Graduation
MEWD	Median Earnings without a Degree
MEWD10	Median Earnings after 10 Years without a Degree
MŠMT	Ministerstvo školství, mládeže a tělovýchovy/ Ministry of Education, Youth and Sports
NCIHE	National Committee of Inquiry into Higher Education
OECD	Organisation for Economic Cooperation and Development
OFFA	Office for Fair Access
PPP	Purchasing Power Parity
UK	United Kingdom
US	United States
USD	United States Dollar

CHAPTER 1: INTRODUCTION

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1.1 Introduction

Over the past decades, investment in higher education (HE) has gradually increased across developed countries (Verhaest and van der Velden, 2013). As Wilton (2007: 520) remarks, there has been an “ideological movement away from the traditional, liberal idea of higher education towards an economic ideology”. The rapid growth in the supply of graduates has been largely driven by increased demand for skilled labour (Chillas, 2010). In 1996, the OECD stated that “the role of knowledge (as compared with natural resources, physical resources and low skilled labour) has taken on greater importance”. It has been argued that the world is moving from an industrial economy towards a new type of “knowledge-driven economy” (e.g. Drucker, 1998; Smith, 2000; Boddy, 2005; Brinkley, 2006; Ehrenberg and Smith, 2011). In its World Development Report, the World Bank (1999: 16) acknowledged that:

“For countries in the vanguard of the world economy, the balance between knowledge and resources has shifted so far towards the former that knowledge has become perhaps the most important factor determining standards of living – more than land, than tools, than labour. Today’s most technologically advanced economies are truly knowledge-based.”

HE has been viewed as a vital component for success in the 21st-century knowledge-based economy. Building on the Lisbon Agenda, the ‘Europe 2020’ strategy, launched by the European Commission in 2010, identified HE as one of the key target areas that need to be met by 2020 to achieve “smart, sustainable and inclusive growth”. One of the aims of this strategy is to increase the proportion of graduates in the EU population. In 1999, Tony Blair, the Prime Minister of the UK at the time, announced his goal of 50% of young people taking part in HE. This target has almost been achieved - in 2014/2015 the likelihood of entering HE for young¹

¹ i.e. below the age of 30

English-domiciled people reached 48% (Office for National Statistics, 2016b). The Czech Government has been even more ambitious – since 2008 the proportion of young people attending university has been higher than 60% of the cohort (Koucký and Zelenka, 2010).

Investment in human capital brings significant benefits to both individuals and society. According to Psacharopoulos and Patrinos (2004), there are some positive externalities stemming from HE that spill over to other members of the community; however, it is difficult to measure these positive externalities. Graduates tend to have higher levels of general knowledge and gain new knowledge more effectively (Alstadsæter and Sievertsen, 2009). Highly-educated individuals are also likely to pay higher income taxes and be less dependent on state welfare (Harmon et al., 2003). Other positive impacts of education on society include better public health, improved parenting skills, “better environment, wider political and community participation, and greater social cohesion” (Sianesi and Van Reenen, 2003: 160).

On the other hand, it is possible to quantify financial benefits of HE for individuals by comparing the costs of education with financial returns to a degree. Previous research has confirmed the existence of a so-called graduate earnings premium in the UK; however, the actual rate of return to an undergraduate degree vary with gender, institution attended, subject and socio-economic background (O’Leary and Sloane, 2005; Chevalier, 2011; Conlon and Patrignani, 2011; Walker and Zhu; 2011; Purcell et al., 2012; Crawford and Vignoles, 2014; de Vries, 2014; Britton et al., 2016). Furthermore, there has been some concern about the graduate premium decreasing in England since the introduction of tuition fees (Chevalier et al., 2004; Brynin, 2012, Purcell et al., 2012; Kemp-King, 2016). In the Czech Republic, the average graduate premium has been estimated to be 30% (Dravecký, 2010).

Although both graduates and the state harvest the fruit from the investment in higher education, it is generally believed that the private returns are greater than the social returns (Psacharopoulos, 1994). The difference between the private and the social rate of return reflects the extent of the public subsidisation of HE (Psacharopoulos and Patrinos, 2004). The current UK government sees HE as a private benefit rather than a public good and the existence of a graduate premium has been used to justify the introduction of tuition fees in England (Morgan, 2012a). While students at the Czech public universities do not pay tuition fees, some politicians have questioned the value of HE for a society as a whole. For instance, in 2012, Václav Klaus, Czech President at the time, called students studying free of charge “parasites on the rest of society” (Zrůstová, 2014).

1.2 Need for the study

The literature on financial return to education is abundant; however, most studies have estimated the rate of returns by using actual earnings data. According to human capital theory, young people will enter HE if the expected gain in earnings exceeds the cost of obtaining a degree (Gemmell, 1997). However, due to the reluctance of economists to use subjective data the research on students' earnings expectations is still somewhat limited (Dornitz and Manski, 1996). While young people go to university for a variety of reasons, better career prospects and an increase in their earnings potential are undoubtedly some of the most important motivations behind the decision to undertake HE. Therefore, it is important to understand how students form their earnings expectations (Manski, 1993).

While the body of literature on students' earnings expectations is growing slowly, most studies have focused on students within one country; there are only a few cross-country comparative studies. This study compares students' earnings expectation in England and the Czech Republic. The reason for comparing these two countries is two-fold. Firstly, there is a difference in HE funding. While studying at Czech public universities is free of charge, students in England pay on average the highest tuition fees in the world (OECD, 2015). Secondly, the incidence of overeducation² in the UK is higher with increasing number of graduates entering non-graduate jobs (Felstead et al., 2007; CIPD, 2015; Office for National Statistics, 2016d). By contrast, the incidence of overeducation in the Czech Republic remains one of the lowest among European countries (Barone and Ortiz, 2010; Verhaest and Van der Velden, 2013).

Previous studies have almost exclusively used a cross-sectional study design thus collecting data only at a single point in time. However, this design does not allow researchers to track changes over time. While this study is not truly longitudinal it does use a repeated cross-sectional design. As a result, it is possible to detect changes in earnings expectations between cohorts.

Finally, there are a number of factors that might influence students' earnings expectations. While the impact of some students' personal characteristics (e.g. gender and social class) has been acknowledged in previous research, students' seniority (i.e. proximity to graduation) has been largely overlooked. This study compares earnings expectations of first year and final year students. The positive association between supervised work placements and graduate earnings is well-documented in the literature (e.g. HEFCE 2009; Papadatou, 2010a; High Fliers Research, 2012); yet no study on students' expectations has included this factor. Thus the

² Situation when graduates are in employment which requires only a sub-degree level of qualification or no qualification at all.

effect of casual work experience and supervised work placements on earnings' expectations is analysed in this study. Moreover, graduates with a first class degree and those who have completed a Master degree have been found to have higher earnings (Conlon and Patrignani, 2011; Walker and Zhu, 2011; Lindley and Machin, 2013); therefore in this study students' earnings expectations are evaluated in the light of their expected final grade and their expectations regarding postgraduate studies.

1.3 History of the research

The data collection originated in the Czech Republic in 2001 at three public universities³. In 2004 one Business School in the UK joined the research followed by another institution in 2009. The original research focused only on earnings expectations of first year students. In 2010 the scope of the study was extended to include earnings expectations of final year students.

1.4 Research objectives

This study focuses on the first year and final year students on business programmes in two countries – England⁴ and the Czech Republic. The aim of this study is to examine and compare students' earnings expectations and explore their perceptions of the link between educational credentials and labour market outcomes.

The main objectives of this study are:

- To find out which demographic factors (gender, age, ethnicity, parental education and parental income) influence students' earnings expectations.
- To examine the effect of education (including the level of education, university prestige, expected final grade, expected postgraduate studies, overeducation and study abroad) on students' earnings expectations.
- To explore how students perceive the link between higher education and labour market outcomes in the light of human capital theory, the screening hypothesis and credentialism.
- To examine whether there is any evidence of a “sheepskin effect” in students' earnings expectations
- To determine what is the impact of students' work experience (including casual and supervised work experience) on their graduate labour market expectations.

³ This study only uses data collected from one of these original institutions. In 2010 another Czech public university joined this study.

⁴ This study focuses on England rather than the UK as different tuition fee policies exist in Wales, Scotland and Northern Ireland.

- To compare how earnings expectations vary among students both within and between countries.

1.5 Structure of the thesis

The rest of this thesis is structured as follows. Chapter 2 introduces the HE systems in England and the Czech Republic. It provides information on HE funding and discusses the development of tuition fees in England.

In Chapter 3, three theories (i.e. human capital theory, the screening hypothesis and credentialism) that attempt to explain the positive relationship between education and labour market outcomes are introduced. The second part of the literature review focuses on factors that might explain the variability in students' earnings expectations.

Chapter 4 describes the stages of the research process. It starts with a discussion of philosophical assumptions that govern this research. This is followed by a discussion on the adopted research strategy and the methods of data collection used in this research. The sampling strategy and decisions about sample size are also considered. This chapter also focuses on ethical problems and the methodological limitations of the study. The final part of this chapter addresses statistical considerations.

Chapter 5 presents the results of this study. The first part of this chapter provides a descriptive analysis of the data. Research questions are then answered, using both qualitative and quantitative data.

Chapter 6 discusses the findings in relation to the research objectives and in the light of previous research. In addition, possible explanations for the findings are offered.

Chapter 7 provides a summary of the key findings and discusses how they contribute to the body of knowledge on students' earnings expectations. Policy and practice implications are also considered. Finally, the limitations of this study are outlined and recommendations for future research are put forward.

CHAPTER 2: HIGHER EDUCATION SYSTEMS and GRADUATE LABOUR MARKETS in the Czech Republic and England

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2.1 Introduction

Both the Czech and English higher education (HE) systems have undergone radical changes in last two decades. Both countries have seen a substantial increase in the number of HE students and a higher participation rate in HE. These developments have raised the question of sustainability and consequently resulted in the introduction of tuition fees in England⁵. A similar policy was proposed in the Czech Republic but did not get sufficient support from the government.

The effect of tuition fees is twofold. The necessity to pay for HE may have an adverse impact on participation. The tuition fees introduced in England in 1998 were payable up front and means-tested according to parental income. In 2006 the upfront tuition fees in England were

5 It should be stressed that information on student tuition fees applies to England only; different arrangements exist in Wales, Scotland and Northern Ireland.

replaced by deferred fees payable by all students regardless of their family income. Since then all eligible students can get a student loan to cover their tuition fees. This loan is repaid after graduation once their income exceeds £21,000⁶ per annum.

Moreover, tuition fees can possibly have an effect on students' earnings expectations after graduation. Students who have to make financial contributions towards the cost of their degree (albeit deferred) would have lower returns to their education compared to those who have received HE free of charge or at a lower cost⁷. Thus, current students might expect higher earnings after graduation to compensate for higher tuition fees.

This chapter explores the two HE sectors from several perspectives. Firstly, a brief historical overview of the HE sector in each country is provided. This is followed by a comparison of HE structures in both countries using the International Standard Classification of Education (ISCED). A substantial part of this chapter is then devoted to HE funding with special attention to tuition fees. Tuition fees in England were introduced in 1998 and their development is discussed along with the student loan system. As mentioned above, there are still no tuition fees at public universities in the Czech Republic; however, the government has made several proposals which are presented in this chapter.

The final part of this chapter focuses on the economic situation and labour market characteristics in each country.

2.2 Higher education in England

HE in England began with the establishment of Oxford and Cambridge universities in 1096 and 1209 respectively (University of Cambridge, 2017; University of Oxford, 2017). These two universities were the only ones to exist before the 19th century when two more institutions were founded in Durham and London. Before the First World War, a small group of institutions called 'red brick' universities was formed. Red brick universities were located in major industrial cities and originally specialised in science and engineering. Following the recommendations of the Robbins report (published in 1963) there was an expansion of the UK HE sector. In total, 17 modern, so-called "plate glass", universities were established and all Colleges of Advanced Technology were given the status of universities (Wyness, 2010).

⁶ The threshold is £15,000 p.a. for students who entered HE prior the academic year 2012/2013.

⁷ In England, HE was free of charge until 1998. From 1998 there was a tuition fee of £1,000 increasing annually in line with inflation. From 2006 to 2012 students were charged deferred tuition fees of up to £3,000 with inflationary rises. In 2012 the maximum amount charged for undergraduate courses increased to £9,000. Students in Wales are also charged a tuition fee of up to £9,000. In Northern Ireland, the maximum tuition fee is £3,925. Students in Scotland do not pay for their HE.

During the 1990s the HE sector was substantially reformed again in order to accommodate an increasing number of students (Chevalier and Conlon, 2003). Prior to 1992, there was a so-called binary system in place with two types of HE institutions. While traditional universities provided academic courses and carried out research, polytechnics offered more vocationally-oriented education. Universities were autonomous with degree awarding powers. Polytechnics, on the other hand, were under the local government control until 1988 and they could only award degrees through a national accreditation body. The binary system ended in 1992 when 48 polytechnics were awarded university status and degree awarding powers as a result of the Further and Higher Education Act (Wyness, 2010).

In 2005 the HE sector experienced another expansion. Prior to 2005, only institutions that had degree awarding powers could become universities. Following the White Paper (titled “the Future of Higher Education”) which was published in 2003, institutions that have taught degree awarding powers and at least 4,000 full-time equivalent students could use the title “university” (European Education Directory, 2014). As a result, six Colleges of HE achieved full university status in 2005 (Cassidy, 2005). The threshold on a number of students was lowered to 1,000 students in 2012/2013 and consequently, ten long-established specialist institutions were awarded university status (European Education Directory, 2014).

2.2.1 Tertiary education structure in England

The tertiary education sector in England is overseen by the Department for Education and the Department for Business, Energy and Industrial Strategy with Jo Johnson being the Minister of State for Universities and Science⁸. According to the ISCED classification, tertiary education programmes can be divided into three main subgroups. Programmes at level 5A are theoretically-based and prepare students for professions with high skills requirements (OECD, 1999). These programmes have a minimum three years full-time equivalent duration. Graduates are allowed to enter advanced research programmes (e.g. Masters by research or PhD) which are classified as level 6. Nevertheless, it should be noted that in the UK and other English-speaking countries (e.g. Canada, Australia and New Zealand) the vast majority of graduates leave HE with a three-year Bachelor degree which gives them an “access to a wide range of occupations and opportunities for further education” (OECD, 1999: 53).

On the other hand, level 5B programmes are more practical and focus on “occupationally-specific skills geared for direct entry into the labour market” (OECD, 1999: 58). They are

⁸ Prior to July 2016, HE sector in the UK was overseen by the Department for Business, Innovation and Skills (BIS) which no longer exists.

typically shorter than level 5A programmes and graduates do not have direct access to research programmes. In England, further education colleges (FECs) are long-standing providers of level 5B programmes. Nevertheless, the number of undergraduate students in FECs is relatively low and decreasing over years. As Parry et al. (2012) note, in the academic year 2009/2010, around one in twelve HE students were taught in FECs. They offer several reasons for this trend. Firstly, FECs can only attract local and regional students. The second explanation is in terms of their status - FECs are often seen as inferior to universities.

As of 2015, there were 147 universities and colleges (so-called recognised bodies) that were permitted to award degrees in the UK (BIS, 2015). Some universities with “similar origins, ethos and ambitions” have formed the so-called mission groups (Scott, 2013). The Russell Group is an association of leading UK research-intensive universities including Oxford and Cambridge. In 2012, the Russell Group expanded and currently represents 24 institutions. Million+ group includes 17 new (post-1992) universities which altogether have more than a million students. The 1994 Group brought together small research-intensive universities; however, it ceased to exist in 2013 following the departure of some of its members⁹ (Baker, 2013). The University Alliance was formed in 2006. Its members aim to be leaders in their regions by focusing on entrepreneurship and innovation (University Alliance, 2015). This group consist of 20 universities and educates 25 per cent of all students in the UK.

2.2.2 Higher education funding in England

In the early 1960s, there were concerns about the size of the HE sector as the UK's participation rate, at around 6 per cent, was of one of the lowest among OECD countries (Barr and Crawford, 2005). Funding per head was high and the entire bill for HE was footed by taxpayers (Wyness, 2010). Nevertheless, the cost to the taxpayer was relatively small given the low number of students attending university (Mayhew et al., 2004).

2.2.2.1 From student grants to tuition fees

Following a very rapid expansion in the number of students between 1988 and 1993¹⁰, the Government decided to limit public funding for full-time undergraduate students and consequently tighten public funding for capital expenditure. The first change was implemented in 1990 when the first student loan scheme was launched to cover student

⁹ Universities of Durham, Exeter, York and Queen Mary, University of London, left to join the Russell group (Baker, 2013).

¹⁰ In 1992 48 polytechnics were granted university status which increased the number of students counted as being in HE (Wyness, 2010).

maintenance (Wyness, 2010). The Student Loans Company was founded to administer loans and collect repayments.

The 1992 Further and Higher Education Act which granted university status to polytechnics also created the Higher Education Funding Council for England to regulate the HE sector and distribute public money to universities and colleges. In 1996, John Major, the Conservative prime minister, commissioned an inquiry into long-term HE funding, led by Sir Ron Dearing. The Labour Party won the general election in May 1997 with a manifesto that stated: “the costs of student maintenance should be repaid by graduates on an income-related basis” (cited in Blake, 2010). Two months later the Dearing Report (formally known as ‘Higher Education in the Learning Society’) was published by the National Committee of Inquiry into Higher Education (NCIHE).

The Dearing Report was the first national, comprehensive review of HE since the Robbins Report of 1963. The Dearing Committee argued that HE should not be entirely funded by the taxpayer and that graduates should contribute towards their university education because they are the main beneficiaries through improved employment prospects and pay (Crace and Shepherd, 2007). The key recommendation suggested that all graduates in work should pay approximately 25% of the average cost of HE tuition through an income contingent mechanism (NCIHE, 1997).

In 1998, the Labour government introduced means-tested tuition fees for full-time undergraduate British and EU students¹¹ whose parents earned over £32,000 per annum. The maximum contribution was initially set at £1,000 per annum and indexed to inflation. The tuition fees were the same for all subjects at all universities and had to be paid up front. In addition, means-tested grants were scrapped and replaced by means-tested student loans. Although the introduction of tuition fees was perceived as a radical step, its overall financial consequences were modest – in other words, it did not solve the HE funding problem (Greenaway and Haynes, 2003).

The 2004 Higher Education Act launched the Graduate Contribution Scheme which allowed universities to charge a variable annual tuition fee of up to £3000 (up-rated by inflation each year) for ‘home’ and EU full-time undergraduate students (Ramsey, 2008). While the fee was meant to be variable, almost all HEIs chose to charge the maximum £3,000 fee (Wyness, 2010). The Act went into effect for students entering HE in autumn 2006.

¹¹ Fees for international (non-EU) students are not regulated; they vary by institution and degree course.

In contrast with the upfront fee system where student's financial background was taken into account, there was no exemption from the deferred fee (Wyness, 2010). To pay for their education, all undergraduate students were eligible to take out a government-subsidised tuition fee loan which was paid directly to the student's university by the Student Loans Company. This loan was the main method of direct government support for students in HE; however, means-tested maintenance grants used to be available to students from lower-income families who started their course before August 2016.

Graduates have to start repaying their loan (including tuition fee and maintenance) once their earnings are above the threshold level. The gross annual threshold income was set at £15,000 (nominal prices). Graduates were obliged to pay 9% of everything they earn over the threshold. This loan was 'income contingent' which means that the amount of monthly repayments was dependent on earnings after graduation and not the amount of money borrowed. Another favourable feature of this loan was its interest rate which was fixed at the UK Retail Prices Index or the Bank of England base rate plus 1%, whichever is lower. Moreover, any outstanding debt would be written off after 25 years¹².

This loan system allows students to reduce the risk associated with investing in HE because they do not have to face repayments that would be unreasonable given their income. But since most students cannot afford to pay their tuition up front, a large proportion of graduates enters the labour market with a financial debt. According to data presented by Purcell et al. (2012), almost half of those who graduated in 2010 from English universities had debts of £20,000 or more.

2.2.2.2 Tripling of tuition fees

The variable fee system was intended to create a competitive market in university courses. Nevertheless, as mentioned before, almost all universities decided to set the fee at the £3,000 cap (Universities UK, 2009; Wyness, 2010). Thus the introduction of tuition fees failed to create a dynamic market within the HE system. Another comprehensive assessment of the HE sector was carried out by Lord Browne in 2010. The so-called Browne review¹³, published in October 2010, called for urgent reform of HE funding. Consequently, in December the government agreed to increase the basic tuition fee to £6000 and allow universities to charge a tuition fee of up to £9000 for home and EU undergraduate students.

¹² Graduates who took a loan in the previous system will have any outstanding debt written off at the age of 65.

¹³ The official title of the document is Securing sustainable future for higher education: an independent review of higher education funding and student finance.

The Browne review also suggested a more progressive repayment system of student loans which was accepted by the Government. The repayment threshold has increased - students who entered HE in the academic year 2012/2013 will start repaying their loans from April 2016 once their income is above £21000 per year. The repayment threshold will be assessed on a regular basis to “reflect earnings” (Willetts, 2010). There have been calls already to reduce the level of income at which graduates start to repay their loans because the current repayment regime is a “fiscal black hole” (Barr¹⁴, 2013; quoted in Morgan, 2013b: 6).

Under the present regime, student loans are similar to commercial loans. The interest rate for these loans is progressive depending on a graduate’s income. For those who earn less than £21,000 per annum, the loan interest rate is set at the rate of inflation. In other words, the real rate of interest remains at zero (Willetts, 2010). On the other hand, graduates earning more than £41,000 will be charged a real (above-inflation) interest rate of up to 3%. Although the repayment rate remained unchanged, the overall amount that graduates have to pay back was increased. Moreover, the repayment period has been extended from 25 to 30 years.

2.2.2.3 Unlimited tuition fees – the way forward?

While prospective students protested against higher tuition fees, some elite universities argued that they should be given the power to charge unlimited fees. This view was also supported in the Browne report. The existing fee cap prevents universities from increasing fees in line with inflation which means that leading institutions struggle to compete globally (Jump, 2014). Sir Christopher Snowdon (cited in Paton, 2013), the President of Universities UK, stated that the current cap was “simply not sustainable” and “can’t remain frozen forever”. Along the same lines, Sir Howard Newby (cited in Parr, 2014 and Paton, 2014), a Russell Group vice-chancellor, claimed that abolishing the existing a £9,000-a-year cap on fees is the most rational way to deal with the financing of HE. To ensure that pupils from poorer backgrounds are not excluded he suggests a “sliding scale” approach in which costs are levied depending on students’ family income.

Before the general elections in 2015, the Conservatives refused to rule out another increase in tuition fees. A Conservative MP Margot James (quoted in Morgan, 2014: 8) said that when there is a system where “universities get £9,000 for something that costs roughly £16,000, that is an issue that does need resolving”. On the contrary, the Labour Party initially unveiled

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an election pledge to “cut fees to £6,000 and, eventually, move to a graduate tax” (Rammell, 2014: 26).

2.2.2.4 Are tuition fees justified?

The UK government argued that it was necessary to shift the burden away from taxpayers and increase tuition fees given the economic climate. Policy-makers have also claimed that participation in HE brings significant financial and personal benefits for individual graduate (Tomlinson, 2007) and therefore students’ full contribution towards the tuition fee is justified. Likewise, the OECD holds the view that graduates are rewarded with “higher earnings, and therefore there is no obvious reason why the rest of the community should be expected to meet their study costs” (Marginson, 1993: 49).

On the other hand, young people in England have organised several protests calling for the abolition of tuition fees (Coughlan, 2015). England is now the only country in the OECD which aims to claim back all the costs associated with HE from the former students (Brink, 2012; cited in Morgan, 2012b). As Kirby (2016) points out, students in England graduate with an average debt of £44,000 which is one of the highest debts in the world. Unsurprisingly, students in England are more likely to view their student debt burden as an unfair start to their working life compared to their counterparts in the US and New Zealand (Harrison et al., 2015).

The so-called graduate premium, which has been used as justification for increasing tuition fees, is defined as the “present value of the benefits associated with an undergraduate degree relative to an individual in possession of 2 or more A-levels minus the present value of the costs associated with acquiring a degree” (Conlon and Patrignani, 2011: 9)¹⁵. Nevertheless, this approach has been criticised because this simple calculation is based on a comparison of university entrants and non-entrants and, as Thompson¹⁶ (2012; cited in Morgan, 2012a) points out, these two groups are incomparable in terms of achievements at A-levels.

Since the 1960s number of studies have confirmed that average rates of return to graduation in the UK are higher compared with “alternative investment opportunities of comparable risk” (Adnett and Slack, 2007: 25). For example, O’Leary and Sloane (2005) found that UK

¹⁵ Within the Czech context, the graduate premium can be calculated as the difference in average earnings between graduates with a Master’s degree and those who completed Maturita.

¹⁶ John Thompson is an analyst at the Higher Education Policy Institute.

graduates can expect to earn an additional £149,761¹⁷ over their lifetime compared to those who finished education with A-levels. According to Conlon and Patrignani (2011), the average rate of return to an undergraduate degree in the UK stands at 27.4 per cent.

Nevertheless, there has been a debate about the graduate premium shrinking for recent graduates. Chevalier et al. (2004) revealed that returns to a degree had been decreasing in the UK since the 1990s. Moreover, as this fall has been apparent across the entire wage distribution it cannot be attributed solely to the expansion of the HE sector during the 1990s. Brynin (2012: 291) observes that a “high proportion of graduates earns much the same as A-level school leavers so that many graduates benefit little from their degree”. Longitudinal research by Purcell et al. (2012: xviii) reveals that the graduate premium in the UK “has been declining slowly over the past decade, possibly as much as two per cent per annum relative to average earnings in the economy”.

One should also bear in mind that the financial returns to HE vary across institutions and they largely depend on the field of study. It has been documented that graduates in some disciplines (especially Arts and Humanities subjects) experience negative rates of return (O’Leary and Sloane, 2005; Britton et al., 2016). Moreover, there are also non-financial benefits of HE. There is a positive correlation between education and health. On average, graduates live longer, they are less likely to smoke and have lower body mass index than non-graduates (Savage and Norton, 2012; Buckles et al., 2013; Centers for Disease Control and Prevention, 2016). There is also a link between parental education and children’s educational outcomes; in 2006 children with degree educated parents were four times more likely to obtain at least five A* to C grades at GCSE compared to those whose parents did not attend university (Sutton Trust, 2010b). Finally, graduates are likely to have higher voting rates, volunteer more and have more friends than similar non-graduates (Savage and Norton, 2012).

2.2.3 Recruitment caps

Tuition fee loans, maintenance loans and maintenance grants for full-time undergraduate British and EU students in England are publicly-funded. Therefore, it is necessary to limit the overall student recruitment so that the Government can manage its budget (HEFCE, 2014c). Since 1992 the HEFCE has been responsible for controlling student numbers in England. All universities were given an allocation for the maximum volume of UK undergraduate and taught postgraduate students they could recruit. In 2002 a tolerance band of 5 per cent was

¹⁷ This figure is calculated from O’Leary and Sloane’s results as they only provided an average increase of lifetime earnings for male graduates (£141,539) and female graduates (£157,982) separately.

introduced in order to give universities more flexibility in their recruitment. This system was strictly enforced – universities exceeding their limits faced fines of £3,700 per student (Sutton Trust, 2010a). In 2011/2012 the penalty per student stood at £3,800 and England's universities suffered a record fine of almost £21 million. It has been suggested that universities deliberately allowed too many students to enrol because they had anticipated a fall in student demand in 2012/2013¹⁸ (Garner, 2012).

The White Paper called “Students at the Heart of the System” published in June 2011 proposed to partially lift the strict cap on student numbers by putting forward the so-called AAB system (BIS, 2011). This system started to operate in 2012/2013 and allowed universities to accept an unlimited number of high-achieving students with AAB grades or above at A-level¹⁹. In 2013, the AAB policy was extended and universities were permitted to recruit uncapped numbers of students at the lower grade threshold of ABB or equivalent.

Nevertheless, this student control number policy did not result in the “anticipated market differentiation in fees or general redistribution of higher achieving students within the sector” (Taylor and McCaig, 2014: 18). Thus, the failure to produce the required market differentiation has influenced the Government's decision to remove the cap on student numbers completely. Alternatively, abolishing limits on student numbers could be viewed as a further step in the liberalisation of English HE sector (Hillman, 2014). Since 2015/2016 university places have been completely deregulated. In other words, universities in England are allowed to recruit as many home and EU students as they wish.

Nevertheless, there have been growing concerns over the end of the student number cap. The Russell Group urged the Government to drop this plan altogether arguing that the policy could have “disastrous financial consequences” (Adams, 2014). A deregulation of student places is likely to increase demand for HE and it is not clear how this policy will be financially sustainable in the long-term (Morgan, 2013a).

The Government had initially suggested that the HE expansion would be funded by selling off the student loan book but the privatisation of student loans was later abandoned as it would not help Government finances (McGettigan and Chakraborty, 2014). In addition, universities will have to find additional sources of income to cover additional capital and infrastructure costs associated with HE expansion (Paton, 2013). The Russell Group fears that there will be less funding per student available and universities will be forced to cut their research budgets in order to pay for additional students (Adams, 2014).

¹⁸ New tuition fee system began to operate in 2012/2013.

¹⁹ This also applies to students with equivalent qualification and grades.

This move will also result in greater competition among institutions. There is no doubt that universities will increase their advertising to win a “bigger slice of the cake” (Matthews, 2013a). In the US some for-profit colleges spend more than 20% of their revenue on marketing and it has been suggested that UK universities “would rapidly move towards an equivalent figure” (Matthews, 2012: 10). This would mean that revenue from tuition fees will be spent on attracting potential students rather than improving the learning experience of the existing ones. Another concern is the quality of the student intake – universities could be tempted to expand more and consequently more low-achieving school-leavers will secure a place at university.

2.2.4 Higher tuition fees – barrier to participation?

Before the Second World War HE was the “preserve of a small elite” as less than 2% of the relevant age cohort were studying for a degree (Reay et al., 2001: 855). Since the Robbins era, HE is popularly imagined as a key to social and economic mobility (Major, 2012). In our ostensibly meritocratic society, everyone should have equal educational opportunities (Galindo-Rueda and Vignoles, 2002). There were concerns that higher tuition fees could put off young people from poorer backgrounds going to university; however, the participation rate among disadvantaged and underrepresented groups was not significantly affected following the implementation of reforms to undergraduate funding in 2012/2013 (Universities UK, 2014; Independent Commission of Fees, 2015). According to UCAS (2017) entry rates, HE participation from the most disadvantaged neighbourhoods in England have increased by 73% since 2006 and reached 19.5% in 2016, the highest rate ever.

The £9000 tuition fee cap was originally intended for exceptional circumstances and the government anticipated that only the most selective universities would charge full fees (Garner, 2012). Nevertheless, about two thirds of universities announced their plans to charge more than the basic fee from 2012. Grove (2014b) observes that two years later all but two English universities were charging undergraduates more than £6,000 for at least some of their courses. What is more, in 2014/2015 there were 44 universities charging the maximum fee of £9,000 for all their courses and the average tuition fee was £8,830.

All universities that charged more than £6,000 had to participate in the National Scholarships Programme (NSP) which was designed to encourage bright potential students to apply to university and help them to fund their studies (Willetts, 2010). From 2012/2013 full-time students from low-income²⁰ backgrounds were eligible for a minimum award of £3,000 which

²⁰ Low-income is defined as £25,000 or less.

could take the form of bursaries, fee waivers or subsidised rent, but had to be delivered in the first year of study (HEFCE, 2014b; McCaig, 2014).

Nevertheless, more than half of the NSP funds were spent on fee waivers. A focus on fee waivers over bursaries was criticised by student leaders who spoke of an “elaborate con trick” (Burns, 2011). As Grove (2014b) clarifies, the vast majority of graduates will “never repay the final third of their debt” which means that partial fee waivers will be only beneficial to the highest post-graduation earners. Moreover, many post-1992 universities were not able to financially support as many students from poorer backgrounds as they could under the previous bursary regime. McCaig (2014: 225) argues that, as a result, some institutions “moved away from widening participation towards the ‘quality’ end of the market” by setting additional merit based criteria.

In November 2013 the budget for 2014/2015 entrants had been unexpectedly slashed by £100 million which meant a reduction in the minimum award from £3,000 to £2,000 (Grove, 2014a). In 2015/2016 the NSP was abolished for undergraduate students (HEFCE, 2014b). A number of universities have decided to use their own reserves to replace state scholarship funding; however, many institutions will not be able to fully compensate for lost scholarship money (Grove, 2014a).

Another measure to improve social mobility was the establishment of the Office for Fair Access (OFFA: 2014a) which promotes and safeguards equitable access to HE “for lower income and other under-represented groups”. All publicly funded universities and colleges in England have to apply for an access agreement which has to be approved by the OFFA. Eventually, all universities in England obtained permission from the OFFA to charge beyond the basic level (Garner, 2012). In the agreement, the institutions have to outline which access measures have been adopted to enhance social mobility. These measures include providing bursaries or fee waivers and running summer schools to attract more pupils from disadvantaged backgrounds (OFFA, 2014a). Nevertheless, Milburn (2012) warns that bursary schemes have a minimal impact in widening participation and university expenditure on them is too high. On a similar note, OFFA (2014b) found that disadvantaged students (defined directly by income or indirectly by area-based measures) have the lowest expected rates of continuation and bursaries scheme have no observable effect on the retention rates of young full-time first degree students.

2.3 Higher education in the Czech Republic

Czech HE dates back to 1348 when the Emperor Charles IV established a university in Prague which is the oldest academic institution in Central Europe. The second university which is still in operation today was founded in 1573 in Olomouc. Another important milestone was the establishment of an independent Czechoslovakia in 1918. Within a year three more universities were established in Brno and one in Prague. The development of the HE sector was disrupted by World War II.

Following the communist coup in 1948, the Soviet HE model was imposed in Czechoslovakia and universities were under strict government control. The government rigidly centralised and politicised higher education with regard to “access, curriculum, staffing, resource allocation and planning” (McMullen, 2000: 2). While some study programmes were not heavily ideologised (e.g. medicine and engineering), others contained a considerable amount of communist indoctrination (e.g. law and economics). Moreover, the HE system was elitist in nature; Party membership by prospective students (or their parents) was usually a prerequisite for admission to a university (Koucký, 2012).

Soon after Czechoslovakia’s Velvet Revolution in 1989, HE institutions regained academic rights, freedom and autonomy, which was codified by the Higher Education Act of 1990 (Centre for Higher Education Studies, 2005). Students were allowed to choose their own educational path; however, universities remained highly selective and their limited capacity could not satisfy demand (Koucký, 2012). The Czech Republic has one of the highest proportions (92 per cent) of the labour force with completed secondary education; however, the number of graduates in the Czech labour market is still one of the lowest among OECD countries (OECD, 2012a). In 2008 only 14.5% of Czech population (aged 25 to 64) held tertiary qualifications compared to the average of 25.3% in the EU (Koucký and Zelenka, 2010).

The Government has made a significant effort to expand HE opportunities since the 1990s. According to Koucký and Zelenka (2010), students who graduated in 2000 represented less than 14% of their cohort; however, the proportion of graduates in the 2011 cohort increased sharply to 44%. They have also estimated that by 2017 young people with higher education will constitute the majority of the “25 to 34-years-old” cohort.

2.3.1 Structure of tertiary education in the Czech Republic

The tertiary education sector in the Czech Republic is governed by the Ministry of Education, Youth and Sports which allocates financial resources to individual HEIs. Tertiary education is realised at two main types of institutions: higher education institutions (HEIs) which offer accredited degree programmes at three levels (Bachelor, Masters and doctoral) and tertiary

professional schools which provide the necessary qualifications for demanding technical activities (European Commission, 2013).

Acceptance to HE requires an applicant to complete secondary general or vocational education with a school-leaving examination (so-called Maturita). HEIs determine their own enrolment criteria and may set additional admission requirements. Most universities conduct their own entrance examination which any prospective student has to pass. At the end of their university studies, students have to defend a thesis and pass state exams.

Traditionally, the length of university programmes has been five years and a Master degree has been the “leaving” qualification. As a consequence of the Bologna process, shorter three-year Bachelor programmes have been introduced (OECD, 1999). Nevertheless, the Bachelor degree has been mainly viewed as the first stage of university education rather than a labour market transition point. In order to have an access to graduate occupations, students usually have to complete two years Master degree as well.

2.3.1.1 Tertiary professional education (classified as ISCED 5B)

In order to diversify the HE sector, a new type of tertiary institutions came into existence in 1996. These so-called higher technical schools specialise in areas such as hotel management, bank clerking or nurse training (OECD, 1999). Nevertheless, their position and development have been undermined since the traditional universities started to offer vocationally-oriented Bachelor programmes during the second half of the 1990s as a part of the Bologna process (Koucký, 2012). Students conclude their studies with a graduate examination (so-called absolutorium) and obtain the title “specialist with a diploma” (European Commission, 2013). One of the main drawbacks of tertiary professional schools is that their diplomas are less prestigious than a Bachelor degree and school-leavers are not allowed to enrol in Master degree programmes (Koucký, 2012).

2.3.1.2 Higher education (classified as ISCED 5A and 6)

HEIs represent the highest level of the educational system. Based on the scope of their activities, the HEIs are further divided into two categories. The university-type of HEIs provides, in accordance with the Bologna Process, all three cycles of study. On the other hand, the non-university type of HEIs offers mainly Bachelor degree programmes and occasionally Master degree programmes; however, they are not allowed to award doctoral degrees.

HEIs in the Czech Republic are public, state or private. In 1998, a new Higher Education Act (Act No. 111/1998) came into force and almost all state HEIs became independent public

institutions. Only two HEIs, the Police Academy and the University of Defence, retained their status as state institutions (Koucký, 2012). The new Higher Education Act also enabled the establishment of private HEIs in order to introduce competition into the HE sector. As of 2015, there were 46 private HEIs alongside 28 public HEIs. All private HEIs started as institutions of the non-university type and so far only three have gained university status (European Commission, 2013).

2.3.2 Higher education funding in the Czech Republic

All public HEIs are entitled to a state subsidy which is provided through the budget of the Ministry of Education, Youth and Sports. Since the 1960s the funding for HEIs took the form of incremental budgeting (McMullen, 2000). In 1991, a per capita funding mechanism was introduced in order to motivate universities to increase student intake (Koucký, 2012). This system took into account not only the total number of students enrolled but also the average costs per student in a particular field of study.

Moreover, the Higher Education Act of 1990 encouraged HEIs to become more economically self-sufficient by allowing them to generate money through various activities such as conferences, consulting and publishing (McMullen, 2000). Other important changes concerning HE financing were brought by the following Higher Education Act of 1998. There was a change in property rights - the ownership of the property was transferred from the state to HEIs (Ministry of Education, Youth and Sports, 2009). The 1998 Act also introduced the concept of study-related fees at public HEIs (e.g. fees related to entrance procedures, fees for exceeding the standard length of studies and fees for study programmes carried out in a foreign language).

While HE participation expanded dramatically, the quality of HE declined because per capita funding system emphasised quantity encouraging universities to maximise their student intake (Koucký, 2012). Therefore, performance-based funding²¹ (PBF) has been gradually implemented since 2009. The proportion of PBF to the overall budget of HEIs is currently 20 per cent. It should also be noted that there is no such regulation as *numerus clausus*²² set up by the Government. Every year the Ministry of Education negotiates with the representation of HEIs the number of students that will be publicly funded; however, HEIs have a full autonomy to decide on the actual number of students admitted. According to the Ministry of Education, Youth and Sports (2009: 51), HEIs “have the right to decide on an

21 Performance-based funding uses three main indicators: performance in research and artistic activities; quality of study and employability of graduates; and internationalisation and mobility (Koucký, 2012).

22 i.e. limitation on the number of students allowed to enter university

increase in the numbers of students they admit beyond the numbers that have been agreed while utilising the resources allocated effectively”.

2.3.2.1 Discussion on tuition fees

While there has been a worldwide shift in the burden of HE costs from governments and taxpayers to parents and students, the Czech HE system has not followed this trend. As Koucký (2012: 9) notes, the introduction of tuition fees in public HEIs is “a very sensitive and contested political issue in the Czech Republic”. Currently, HE at public and state universities is free of charge for students of all nationalities if the language of instruction is Czech. Students who wish to study a programme taught in a foreign language are required to pay tuition fees. The amount of the tuition fee depends on the institution and course of study. Students at public universities can also be charged admission and administrative fees.

The first attempt to charge students for HE was made in the mid-1990s but the government bill was rejected at the last minute. In 2010, the governing centre-right coalition²³ made an effort to introduce tuition fees at public universities together with a student support scheme from 2013, as a part of tertiary education reform. The coalition proposed a maximum fee of 10,000 CZK per semester. The payment of tuition fees would be deferred and graduates would start to repay the loan as soon as their earnings were above the national average wage (Urbánek, 2012).

This plan caused an outcry among students who organised several protest marches in Prague. This escalated in March 2012 when an independent student movement – the Initiative for Independent Universities – organised a nationwide “Week of Unrest” (Zrůstová, 2014). About 20,000 students protested in the streets of Czech university cities. There was a growing fear among academics that tuition fees would only offset cuts in public spending on HE and would not improve the quality of teaching. The Czech academic community also protested and eventually opposed the reforms proposed by the Ministry of Education, Youth and Sports. The coalition government decreased the Ministry’s budget and Josef Dobeš, the Education Minister at that time, resigned ostensibly in protest against these budget cuts²⁴.

After his resignation, Petr Fiala, former rector of Masaryk University²⁵, was appointed as the new Education Minister. Fiala (2012; cited in Myklebust, 2012) said his immediate aim was

23 A three-party coalition government with the Civic Democratic Party, TOP 09 and Public Affairs.

24 The true reason was his failure to audit properly European-funded projects (Kenety, 2012).

25 The second largest university in the Czech Republic.

to “stabilise the sector and create an environment in which there would be mutual trust among all participants working for change that the [higher] education system will undergo at all levels”. Fiala rejected the proposed tuition fees and as a compromise, he suggested a university entrance fee payable at the beginning of each term. This registration fee would around 200 € and cover approximately one tenth of full study costs (Koucký, 2012).

However, in June 2013, the right-wing government fell and was replaced by a left-centred coalition²⁶. The Czech Social Democratic Party (2012) maintains that tuition fees for public HEIs are unacceptable because they mean a social barrier to access to HE. The party has also warned that tuition fees would be another very lucrative business for Czech banks and that graduates in lower-paying disciplines would fall into a debt trap. Finally, tuition fees would not improve the quality of HE since their introduction would be accompanied by a corresponding decline in government expenditure on public HEIs. Thus it is very unlikely that the idea of tuition fees at Czech public HEIs would be implemented in the foreseeable future.

2.3.2.2 Financial support for students

It should be noted that there is no government-sponsored loan system available to students although some major banks offer loans to HE students. From 2005/2006 students who live away from home can apply for a grant in support of accommodation. Each HE institution sets its own criteria for the accommodation grant and the amount of money students can obtain depends on the number of students who have applied for the grant. Nevertheless, the grant does not fully cover the cost of accommodation (Rumanová, 2013). Another form of financial support is available in the form of a social grant. Students from the poorest families whose income does not exceed 1.5 of family’s subsistence minimum are entitled to 1,620 CZK per month for 10 months in an academic year; however, less than 1 per cent of students received the social grant in 2015/2016 (Ministry of Education, Youth and Sports, 2017). Finally, some HE institutions offer merit-based scholarships but the eligibility criteria and the amount of money that can be awarded vary considerably among institutions.

2.4 Graduate labour market in England

The UK economy is the fifth largest economy in the world and the second largest in Europe with GDP per capita 8% above the EU average²⁷ (Eurostat, 2017). The UK has the third largest population in the EU (64.9 million) accounting for 13% of the total EU population

26 A three-party government with the Czech Social Democratic Party, Christian and Democratic Union – Czechoslovak People’s Party and ANO 2011.

27 €39,600 per capita

(Office for National Statistics, 2016c). The economy is dominated by the service sector which in 2013 represented about 79% of GDP (Banks et al., 2014).

The UK entered a recession during the global financial crisis in 2008. Economic output, as measured by real GDP, fell by 7.2% which was the largest fall in post-war history (Banks et al., 2014). The unemployment rate increased as the recession hit, with 4.4% of graduates unemployed in 2009 (BIS, 2016). The number of graduate vacancies offered by the top UK graduate employers²⁸ dropped by 6.7% in 2008 compared to its 2007 level (High Fliers Research, 2009). The impact was most severe in the investment banking and accounting services sectors. The only two areas which increased their graduate intake during the 2008 recruitment season were the Armed Forces and the public sector with an additional 300 recruits (High Fliers Research, 2009). Nevertheless, the public sector did not escape the effects of the economic downturn. After the general election in 2010, the Coalition government made significant spending cuts which resulted in public sector job losses.

In 2015 the employment rates recovered to their pre-recession levels and the UK had the 5th highest employment rate in the EU, at 75.5% (BIS, 2016; Office for National Statistics, 2016c). In 2016, the employment rate for graduates was 87.3%; by comparison, only 70.4% of non-graduates were employed (Office for National Statistics, 2017).

One of the characteristics of the graduate labour market is its uneven distribution around the country. In general, graduate opportunities tend to be concentrated in the capital. Approximately one in five UK university graduates begins their career in London (Ramsey, 2008; Ball, 2016). In some industries (e.g. investment banking and financial analysis) over 50% of graduates are employed in London (Ball, 2011). More than four-fifths (82%) of leading graduate employers offer vacancies in London (High Fliers Research, 2016). Bristow et al. (2011: 137) describe London as a “magnet for graduates looking to pursue lucrative business careers”.

Furthermore, within the UK context, a North-South divide is evident. Most young graduates (aged between 20 and 29) live in London and the South East region; by contrast, Wales, Northern Ireland and the North East region each have less than 5% of the UK's young graduates (Bristow et al., 2011). In terms of graduate employment opportunities, 51% of major graduate employers have entry-level jobs in the South East region; by contrast, only 41% and 35% of these employers offer graduate vacancies in the North East region and Wales, respectively (High Fliers Research, 2016). Geographical location also has some

²⁸ Defined as organisations featured in The Times Top 100 Graduates Employers.

impact on average graduate salaries. London and the South East region offer higher salaries compared to the rest of the country even when the higher costs of living are taken into account (Ramsey, 2008). In 2015, the median salaries of young graduates (aged 21 to 30) in the UK were £24,000 p.a. and they earned £6,000 more than young non-graduates, on average (BIS, 2016). It should also be noted that the income inequality in the UK is higher than the EU average with the Gini coefficient²⁹ of 0.36 (OECD, 2017).

Since the expansion of the HE sector, there has been a debate concerning the incidence of overeducation in the UK labour market (Mason, 1995). According to Felstead et al. (2007), the supply of graduates has outstripped the growth of jobs for which an undergraduate degree is required to get the job. As a result, an increasing number of university-educated workers are unable to secure graduate level employment and thus 'colonise' areas of the labour market that were once occupied by non-graduates (Tomlinson, 2008; Brynin, 2012). According to statistics produced by the Office for National Statistics (2012), more than one in three recent graduates (35.9%) were employed in a lower skilled job³⁰ in 2011. In 2015 45.8% of recent graduates³¹ were working in non-graduate roles³²; for non-recent graduates, the level of overeducation reached 35.5% (Office for National Statistics, 2016d). It should also be noted that the prevalence of overeducation in the UK has been increasing both for graduates and for all employees (Felstead et al., 2007; Green and Zhu, 2010; Purcell et al., 2012; Kemp-King, 2016). The possible negative effects of overeducation are further discussed in the following chapter (section 3.2.3.3).

2.5 Graduate labour market in the Czech Republic

After the end of Communist rule in 1989, the Czech economy underwent significant structural changes. There was a shift from agriculture and construction towards services which nowadays account for approximately 60% of GDP (Araujo and Maleček, 2015). During the early 1990s the Czech economy started its integration with world markets and in 2004 the country became a member of the EU. The Czech economy is the 16th richest economy in the EU with Prague (capital city) being the sixth richest region in the EU (Eurostat, 2017). Its

29 The Gini coefficient measures "the extent to which the distribution of income among individuals or households within an economy deviated from a perfectly equal distribution" (OECD, 2006).

30 Lower skilled job – the competence to do the job is acquired through compulsory education (Office for National Statistics, 2012).

31 Defined as a graduate who left full-time HE within five years of the survey date.

32 Defined as a role which is "associated with tasks that do not normally require knowledge and skills developed through HE to enable them to perform these tasks in a competent manner" (Office for National Statistics, 2016d).

GDP per capita³³ is 87% of the EU average and the Czech Republic is the best-performing country from the former Eastern Bloc (Kotalík, 2015).

The Czech economy can be characterised as a small open one which exports heavily to other EU countries. Thus, the economy was severely hit by the global financial crisis as the demand for exports from other EU states (especially Germany) significantly decreased. The GDP fell by 5.5% in 2009 which was “the largest slump in the economy in the recent history of the Czech Republic as an independent state (Ministry of Industry and Trade, 2010). Before the financial crisis the unemployment rate for people with HE qualification was below 2%; however, it reached 2.5% in 2010 (Ministry of Labour and Social Affairs, 2010a). The situation was even worse for new graduates – the number of registered unemployed new graduates nearly doubled between 2008 and 2010. Graduates from economic, business and management fields had the worst prospects in the labour market due to very high number of graduates in these fields (Ministry of Labour and Social Affairs, 2010b). The overall unemployment rate peaked at the beginning of 2010 when it reached 9.9% (Ministry of Labour and Social Affairs, 2010a). The Czech economy has recovered from the economic downturn - in 2015 the real GDP grew by 4.2% which was the highest rate of growth since (2007) and the unemployment rate decreased to 4.1%, the lowest in the EU (Ministry of Finance, 2016).

As noted earlier, the Czech Republic has one of the lowest incidences of overeducation in Europe (Barone and Ortiz, 2010; Verhaest and van der Velden, 2013). Graduates are concentrated in Prague and Brno where 18.8% and 17.9% of the populations, respectively, have HE qualifications (Czech Statistical Office, 2014). The national average is 8.9% and in all other regions, the share of graduates is below the national average. In terms of income distribution, the Czech Republic has one of the lowest levels income inequality in the EU with the Gini coefficient of 0.26 (OECD, 2017). In 2016, the median earnings in the Czech Republic were 21,641CZK/month³⁴ for non-graduates and 32,271CZK/month³⁵ for graduates (Czech Statistical Office, 2016).

2.6 Conclusion

The purpose of this chapter was to introduce the HE sectors in England and the Czech Republic and provide an overview of the labour market situation in each country. This will

33 €15,800

34 Approximately £8,656 p.a.

35 Approximately £12,908 p.a.

help the reader to understand the survey findings and their implications. The main differences between the two systems are summarised in Table 2.1 below. Historically the university enrolment rates in both countries were low; however, there has been a rapid increase in student numbers during the last two decades. Inevitably, the cost of HE has been rising leading to the public and political debate on how to responsibly finance HE.

In England, tuition fees were introduced to remove the burden on taxpayers and encourage competition within the HE sector. The original fee was means-tested and paid up front. This was replaced in 2006 by a deferred tuition fee; however, under this system, no students were exempt from paying the fee. Currently, there is a maximum tuition fee of £9,000 per academic year. There has been a call from the Russell Group to lift this cap using the argument that English universities need to compete in a global HE market. Since the Conservative Party was re-elected, tuition fees will increase again in line with inflation from 2017/2018. HE providers which meet a minimum required teaching threshold will be allowed to charge £9,250 per year. Another important change was the abolition of maintenance grants for students from lower-income families. It has been argued that this step could hinder social mobility as students will not be willing to take yet another loan.

In the Czech Republic, on the other hand, students do not pay tuition fees at public HEIs. There are no student loans provided by the Government and less than 1% of students are eligible for social grants. There are accommodation grants and merit-based scholarships available but the eligibility criteria and award amounts vary across institutions. There have been several proposals to reform HE funding and introduce tuition fees but none of them has been implemented due to massive public and academic protests. The Czech Social Democratic Party (which forms the coalition government with two other parties since 2013) deems tuition fees socially unacceptable; therefore no radical changes in terms of HE financing are likely to take place before the next general elections which are expected to be held in October 2017.

In terms of economic situation, both countries were hit by the recession during the global financial crisis which was associated with a fall in GDP and increase in unemployment. The unemployment rates and real GDP have recovered since to their pre-recession levels.

Table 2.1 Key differences between the Czech and English HE systems and labour markets

	England	Czech Republic
Tuition fees	Variable tuition fees (£6,000-£9,000) charged by all HEIs	No tuition fees at public HEIs, variable fees charged by private HEIs
Financial support for students	Maintenance loans, maintenance grants, bursaries, scholarships	Limited amount of bursaries (based on academic merit or means-tested)
HE admission criteria	Flexible entry requirements	Successful passing of “Maturita” examination (all HEIs) and entrance test (some HEIs)
Typical “leaving” qualification	Bachelor degree (3 years courses or 4 years sandwich degrees with a one year supervised work experience)	Master degree (5 years or 3 years Bachelor and 2 years Master)
Overeducation in the labour market	Prevalence of overeducation high, especially for recent graduates	Low-incidence of overeducation
Income inequality	Gini coefficient 0.36 (OECD, 2017)	Gini coefficient 0.26 (OECD, 2017)

CHAPTER 3: LITERATURE REVIEW

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3.1 Introduction

The aim of this chapter is to embed this research project in the body of existing knowledge. The positive correlation between educational credentials and socio-economic status is one of the most well-established relationships in social science (Ferrer and Riddell, 2002); however, as Bills (2003: 441) remarks, “why this relationship arises remains in doubt”. Thus, the first part of this chapter introduces three theories that try to explain the relationship between education and labour market outcomes – namely human capital theory, sorting models (the screening/signalling hypothesis) and credentialism. The second part of this chapter looks into existing research on students’ earnings expectations. Numerous factors

that may influence individual earnings expectations are considered. A research model was developed using underlying theories and empirical evidence. This chapter concludes with a list of research questions that will be answered using primary data that were collected for this purpose.

3.2 Investment in education

Published in 1776, Adam Smith's masterpiece, the *Wealth of Nations*, laid down many of the principles of the economics of education. However, it was not until the 1960s that the economics of education was recognised as an academic discipline. As Blaug (1989: 331) remarks, the economics of education was "borne phoenix-like in the early 1960s out of pioneering work of Gary Becker and Edward Denison". Other classic authors of the period include Theodore Schultz and Jacob Mincer. In the 1960s and 1970s, research in education economics flourished; however, during the 1980s research in this field experienced a gradual decline (Dearden et al., 2009). According to Blaug's explanation (1989: 331), the feeble economic growth and stagflation led to scepticism regarding the value of education and the initial enthusiasm for research in the field of the economics of education evaporated. In the recent past, there has been a renaissance in interest in the economics of education research and in many countries researchers have been working closely with educational policy-makers (Dearden et al.; 2009).

Investment in education brings significant benefits to both individuals (i.e. private returns) and society (i.e. public returns). Higher levels of education are positively correlated with higher earnings – the existence of a so-called graduate premium was discussed in Chapter 2. There is also a positive relationship between the amount of education and job satisfaction over one's lifetime (Ehrenberg and Smith, 2011). Graduates also have a greater chance of rapid career progression (Tomlinson, 2008). Highly educated workers are more desirable for companies because they tend to generate more profit (Evans and Kelley, 2002). In return, employers are willing to offer graduates higher salaries "reflecting their increment to the firm's output" (Gemmell: 1997).

According to Bowen and Finegan (1969), labour participation is strongly associated with educational attainment as workers with a college degree are more likely to participate in the labour market than high school graduates. More educated workers are less likely to drop out of the labour force, given the high opportunity cost of inactivity (Little and Bradley, 2005). In 2015, the inactivity rate of UK graduates was 10.1% compared to 25.4% for non-graduates (Office for National Statistics, 2016a). Likewise, there is a negative relationship between

educational attainment and unemployment (Saxton, 2000; Oreopoulos, 2007; Conlon and Patrignani, 2011). For instance, the graduate unemployment rate in the UK stood at 3.1% in 2015 compared to 6.4% for non-graduates (Office for National Statistics, 2016a). Similarly, Czech graduates were found to be 64% less likely to become unemployed compared to the rest of the working labour force (Koucký and Zelenka, 2010).

There are also non-pecuniary benefits arising from (higher) education. The increased human capital is associated with better health, since more educated workers tend to receive higher income they can spend more money on health care. Moreover, more educated individuals take “preventive measures to increase the probability of better health” in order to protect an investment in their human capital (Saxton, 2000: 7). Thus, education is often used as a predictor of life expectancy.³⁶ As discussed earlier, parental education is positively linked to children’s educational outcomes and graduates tend to have higher voting rates, volunteer more and have more friends than similar non-graduates (Sutton Trust, 2010b; Savage and Norton, 2012).

3.2.1 Human capital theory – the technical-functional view

The basis for the human capital theory was laid down by Adam Smith. In his *Wealth of Nations* (1776: 118), he noted that “a man educated at the expense of much labour and time...may be compared to one of those expensive machines...The work which he learns to perform...over and above the wages of common labour will replace the whole expense of his education”. In 1827, Friedrich List identified the ‘capital of mind’ as one of the determinants of the productive power of a nation. Besides, he asserted that “the greater part of productive power consists in the intellectual and social conditions of the individuals” (List, 1827: 192). In other words, the ‘capital of mind’ plays a more important role in wealth creation and economic development compared to other forms of capital³⁷.

As Blaug (1975: 574) points out, “Adam Smith made a start” but the classical economists “simply failed to explore the implications of a human capital view of labour supply”. In a similar vein, Hornbeck and Salamon (1991) note that Smith’s insights were largely ignored for two centuries because economists focused instead on the role of capital, land and hours of labour in economic growth.

The concept of human capital was introduced by the Chicago School economist Theodore Schultz in 1961 and further elaborated by Gary Becker and Jacob Mincer. Human capital

³⁶ For example, in the Czech Republic, a 30 years old man with a university degree can expect to live 17 years longer on average than a 30 years old man who has not completed upper secondary education (OECD, 2012a).

³⁷ List (1827) distinguishes two other forms of capital – capital of nature and capital of productive matter.

theory asserts that the correlation between education and earnings exists because education directly increases the productivity of workers. Since then, scholars (e.g. Harmon et al., 2003; Psacharopoulos and Patrinos, 2004) have empirically tested the concept of human capital as an investment raising future income.

Human capital is defined by the OECD as “the skills, knowledge, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being” (Keeley, 2007: 29). According to Blaug (1970: 19), human capital refers to “the present value of past investments in the skills of people”. From the firm’s perspective, human capital is the worker’s knowledge and skills that can be rented out (Ehrenberg and Smith, 2011). Frank and Bernanke (2008: 331) describe human capital as “an amalgam of factors such as education, training, experience, intelligence, energy, work habits, trustworthiness, and initiative that affect the value of a worker’s marginal product”.

The main mechanisms for acquiring human capital include experience (learning-by-doing), on-the-job training and education (Weiss, 1995; Saxton, 2000). Sakamoto and Kim (2005) discuss three ways in which education can increase individuals’ productivity. Firstly, education is believed to promote cognitive skills (e.g. mathematics and writing). Secondly, students become familiar with technologies commonly used in the workplace. Finally, education imparts transferable skills such as communication, time management or teamwork. In addition to work experience and schooling, expenditure on medical care and migration to take advantage of better job opportunities are also considered as an investment in human capital (Schultz, 1961; Becker, 1962).

Economics recognises two different types of expenditures. While consumption yields “immediate benefit in the form of utility”, investment increases “productive capacity and future incomes” (Smith, 2003: 119). Keynesian economics viewed education as a household expenditure and thus treated it as pure consumption (Blaug, 1970). Schultz (1961) disagreed with this viewpoint; he regarded any direct expenditure on education as human capital investment. Since the introduction of tuition fees in England, participation in HE has been increasingly viewed as a financial investment (Ramsey, 2008). For instance, the OECD claims that “economic returns to education are a key driver for an individual’s decision to invest time and money in education beyond compulsory schooling” (OECD, 2009: 154). On a similar note, Connor et al. (2004: 82) describe today’s students as “more consumerist towards their university education... [they] are more likely to go to university for instrumental reasons³⁸ but they appear to be less interested in the intellectual content of their course”.

38 i.e. “to improve their labour market prospect or fulfil career ambitions” (Connor et al., 2004: 82).

Nevertheless, we should bear in mind that students' motives for entering university are various. Not all students view education as a pure financial investment and attending university is "at least partially [treated as a] consumption good" (Ehrenberg and Smith: 2011: 296).

According to human capital theory, individuals acquire knowledge and skills at school to enhance their subsequent productivity at certain tasks. The deliberate investment in education leads to an increased quality and productive capacity of labour.

3.2.1.1 *Optimum investment in human capital*

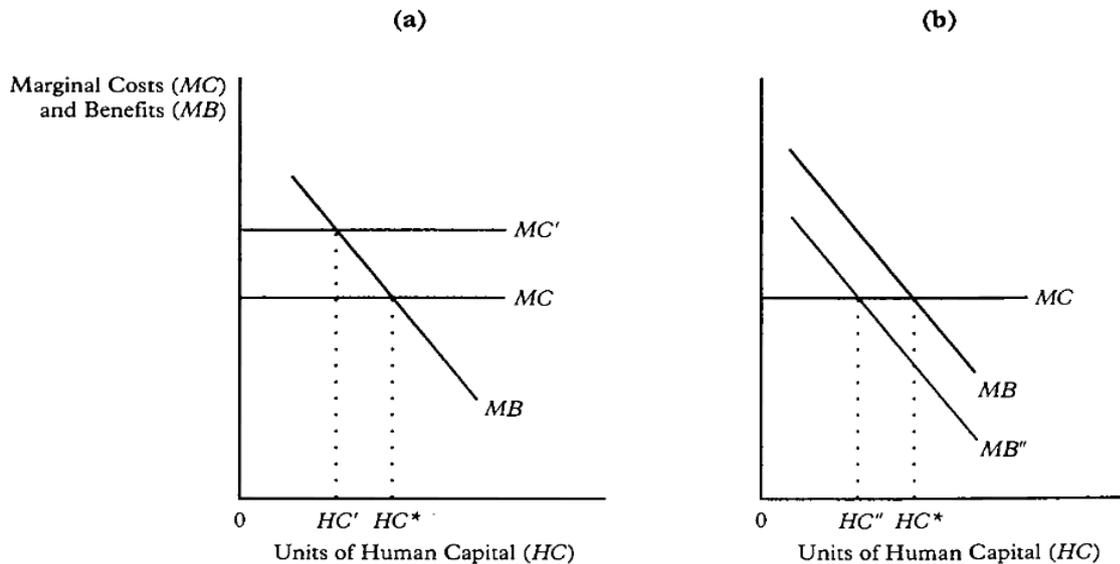
Investment in human capital requires resources (money and time) and entails an element of risk (McNamee and Miller, 2009). The costs of education borne by students comprise not only direct costs (e.g. tuition fees, living expenses, books and other studying material) but also opportunity costs (forgone earnings during the period of qualification attainment). In a perfectly competitive market, individuals know the relevant cost and benefits of additional schooling. Therefore, they are able to reasonably compare the perceived benefits of participation in education against the perceived costs and make a rational choice (Tomlinson, 2008). As these costs and benefits "occur at different points in the individual's lifetime", it is necessary to apply the concept of the net present value and internal rate of return in order to assess them (Conlon and Patrignani, 2011: 25).

Analogously to investment in physical capital, returns from an investment in education can be calculated. However, it should be stressed that investing in human capital is riskier to do than investing in physical and financial capital. While financial and physical assets can be separated from their owners, it is not possible to separate a person from "his or her knowledge, skills, health, or values" (Becker, 1994: 16). Another difficulty is that, unlike physical capital, human capital "does not have a predictable rate of depreciation...While it may depreciate with non-use...it does not depreciate with use" (Adler and Kwon, 2000: 94). Similarly, Brinkley (2006: 5) remarks that "the stock of knowledge is not depleted by use". On the other hand, human capital may require maintenance due to new knowledge or technical progress. Finally, there is no opportunity for prospective students to "test drive" their future university course because education is not a tangible commodity (Moogan et al., 1999: 213).

Within the human capital framework, individuals attempt to maximise their utility. They choose that level of education which would maximise the expected present value of the stream of future incomes, up to retirement at age, net of the costs of education. Figure 3.1 illustrates the human capital investment decision in terms of marginal costs and marginal benefits. While the marginal costs associated with additional schooling are assumed to be

constant, the present value of marginal benefits has a negative slope because each added period of schooling or job training postpones the individual's earnings and reduces the span of a person's working life (Mincer, 1958; Ehrenberg and Smith, 2011).

Figure 3.1 Optimum investment in human capital



Adapted from Ehrenberg and Smith (2011: 295)

For any individual, the optimal level of investment in human capital occurs when marginal costs equal marginal benefits. Put it differently, students continue their investment in education until the difference between the marginal cost and marginal return to education is zero (Harmon et al., 2003). From Figure 3.1 we can see that individuals with higher marginal costs and also those who expect lower returns to their education invest less in their human capital (Ehrenberg and Smith, 2011).

3.2.1.2 Rate of return

According to human capital theory, education is “an investment of current resources....in exchange for future returns” (Harmon et al., 2003: 116). As noted earlier, the rate of return to education can be calculated and compared with the rate of return on other investments. There are two approaches that can be used to determine the private rate of return to education. The first method aims to find the rate of discount “that equalises the stream of discounted benefits to the stream of costs at a given point in time” (Psacharopoulos and Patrinos, 2004: 4).

This equilibrium is characterised by the following formula:

$$\sum_{t=G}^R \frac{(W_u - W_s)}{(1+r)^t} = \sum_{t=A}^G (W_s + C_u)_t (1+r)^t$$

Where:

- $(W_u - W_s)$ is the earning differential between a university graduate and a secondary school graduate (the control group)
- C_u denotes direct costs of university education (e.g. tuition fees, books, accommodation)
- W_s represents indirect costs (student's forgone earnings)
- r is called the internal rate of return which represents "the discount rate that equates the present value of benefits to the present value of costs" (Harmon et al., 2003: 117).
- R is retirement age
- G is age at graduation
- A is age when entering university

This equation implies that one would invest in HE if the internal rate of return (r) is higher than the market rate of interest (i).

The second method used to calculate financial returns to education is the so-called Mincerian Earning Function which was developed by Mincer in 1974. In this model, the natural logarithm of individual earnings is expressed as a linear function of a number of years of completed schooling and as a quadratic function of potential work experience. This regression model was later extended by including a vector of personal characteristics (e.g. gender, ethnicity, the region of residence). The Mincerian earnings function takes the following form:

$$\log W_i = \alpha + \beta_1 S_i + \beta_2 EXP_i + \beta_3 EXP_i^2 + \beta_4 X + \varepsilon_i \quad \text{for } i = 1 \dots N$$

Where:

- w stands for wages
- S for years of completed schooling
- EXP for years of work experience
- X is a vector of additional variables

- ε represents the error component

An individual's experience is included as a quadratic term in order to "capture the concavity of the experience earnings profiles" (Harmon et al., 2003: 117). The β coefficient "provides information on the extent to which a particular independent variable influences the dependent variable" (Conlon and Patrignani, 2011: 23). In other words, these parameters measure the marginal effect of each variable on the logarithm of wages (Ferrer and Riddell, 2002). The β coefficient on years of schooling is interpreted as the average rate of return to a marginal year of schooling (Psacharopoulos and Patrinos, 2004: 4).

One of the major criticisms of this equation is the omission of the individual's ability. It has been suggested that more able students convert education into human capital more efficiently, which in turn increases their internal rate of return to education (Harmon et al., 2003). Griliches (1977) was the first one to include ability in the earnings function. Moreover, the original earnings function does not consider the sheepskin effect³⁹; in its basic specification, educational credentials play no role – only years of schooling are taken into account (Ferrer and Riddell, 2002). As the amount of human capital is measured using only total years of education, estimations can be biased. Therefore, the original model was extended to include a dummy variable (i.e. a variable that has two or more distinct levels) for different types of credentials. Finally, the Mincerian model cannot capture possible non-monetary returns to education. Despite these shortcomings, the Mincerian earnings function is "one of the most widely used tools amongst empirical economists" (Dearden et al., 2009: 618).

3.2.1.3 Rational choice assumption

Given the substantial costs incurred by students in England⁴⁰, young people have to make an important financial decision whether or not to go to university. One will undertake HE if the expected wage gain exceeds the costs of obtaining a degree (Gemmell, 1997). In other words, the decision to participate in higher education is based on the principles of rational choice theory (Tomlinson, 2008). According to Becker (1996: 156), "the rational choice model provides the most promising basis presently available for a unified approach to the analysis of the social world by scholars from different social sciences". Human capital advocates believe that human actions are rational and calculative; they refuse any non-material explanations of human behaviour such as social responsibility, values, traditions or social norms. Instead, they treat people as "homo economica" – materialists "who are driven,

³⁹ i.e. increase in earnings associated with the completion of a degree, see section 3.2.2.3 for more details.

⁴⁰ As explained in section 2.2.2.2.

ultimately, by the desire for material happiness and bodily security...These desires are fundamentally the same for all people across space and time” (Baptiste, 2001: 195).

In 1997 Breen and Goldthorpe developed a generic model that aims to explain how young people make their educational choices. In this model, pupils have to choose whether to continue in education to complete a higher level or to leave education and enter the labour market. For those who stay in education, the two possible outcomes are success or failure. Breen and Goldthorpe (1997) assume that students and their families take into account three different factors when making educational choices: the cost of remaining in education (including direct costs and forgone earnings), the (subjective) likelihood of success at the next stage of education, and the utility that children and their parents attach to each of the three possible educational outcomes.

Breen and Goldthorpe’s model is based on the work of Boudon (1974: xi) who was interested in “differences in level of educational attainment according to social background”. Breen and Goldthorpe (1997) then propose three different mechanisms through which class differentials in educational decisions may arise. The first one is relative risk aversion – all social classes seek to avoid downward social mobility for their children. This implies that children from higher social classes would require higher levels of education to maintain their higher social position. Secondly, students from higher social classes are more likely to be optimistic about their probability of being successful in the next stage of education and therefore they are more likely to continue with their education. Finally, higher social classes have more economic resources and can afford to allow their children to continue their education.

In the light of recent market-based reforms of HE in England, it has been suggested that prospective students will be able to make an informed decision based on the factors that each institution can change in order to attract students. These factors include price, teaching quality and degree content. However, a study conducted by James (2002: 74) concludes that prospective students’ information about these factors is to some extent imperfect because applicants do not have enough time and “their information-seeking skills are often modest”. As Manski (1993: 45) further points out, students “may have different knowledge of the economy and may process their information in different ways”. In addition, it has been documented that student decision-making is non-rational and based on limited subjective information (James, 2002; Matthews, 2013c). University applicants tend to be influenced mainly by the factors that universities cannot control such as geographical location, the cost of living, prevailing weather on university open days, parental preference, friends and prior

reputation (British Educational Research Association, 2012; Matthews, 2013a; Matthews, 2013c).

The idea of potential students behaving as human capitalist (i.e. rational investors in education comparing financial costs and benefits) has also been questioned. Brynin (2012: 285, 296) assumes:

“It is unlikely that many young people calculate the economic value of education relative to an expected career...Individuals cannot and do not calculate the expected returns to their educational investments, not even indirectly, but are led to believe by the assertions of economists and politicians that education pays”.

On a similar note, Manski (1993: 49) states:

“Having witnessed the struggles of econometricians to learn the returns to schooling, I find it difficult to accept the proposition that adolescents are endowed with this knowledge”.

Esson and Ertl (2015) explored the rationales underpinning prospective students' decision whether or not to apply to university. According to their findings:

“...prospective students could not plan ahead in a manner akin to the rational decision-making of well-informed actors associated with government policy, and often central to human capital theory” (Esson and Ertl, 2015: 12).

Alstadsæter and Sievertsen (2009) maintain that some individuals do not pursue their economic self-interest and that graduate premium has little impact on demand for HE, especially in countries with low wage returns. Therefore, the consumption value of HE (such as the social experience of being a student or studying the subject of interest) and non-financial benefits (such as higher social status or better work-life balance) should not be overlooked. But this non-rational behaviour is usually either excluded or seen as a distortion to the human capital model.

While students may be able to assess the costs associated with HE (e.g. tuition fees, living costs, the interest rate on a student loan), the analysis of benefits is more problematic. As Kodde (1986: 460) clarifies, human capital theory assumes that “individuals have perfect foresight with respect to future earnings for every level of education”. Nevertheless, as Ehrenberg and Smith (2011: 301) highlight, future earnings are risky; they “can never be perfectly foretold” for various reasons which are elaborated by Kodde (1986). According to him, we only have an imperfect knowledge of the value of our abilities. Moreover, future supply and demand for a particular occupation cannot be known with certainty. Ehrenberg and Smith (2011: 301) add that many students are “uncertain about their later occupational choice” and their initial career decisions are often subject to change. Finally, lifetime

earnings are negatively affected by events that cannot be fully predicted such as poor health, caring responsibilities or premature mortality.

If we look at the employer's perspective, proponents of human capital theory believe that profit maximising firms are willing to pay higher wages to more productive employees who generate more profits for their employers. In theory, employers pay wages equal to workers' marginal revenue productivity. The presumption is that any difference in earnings is due to human capital accumulation. Since productivity is the only determinant of an individual's wage other factors such as age, sex, race, and wealth are not taken into account (Smith, 1993). Nevertheless, Matthews (2014) stresses that in the real world productivity and educational achievement are not the only determinants of individual's wages. He gives an example of the gender pay gap – in some societies, female employees earn generally less than their male counterparts at the same rank despite having the same qualifications. Furthermore, Bills (2003) argues that many employers perceive the relationship between skills acquired at school and performance at the workplace to be somewhat loose.

3.2.2 Sorting models – the screening hypothesis and the market-signal view

Human capital theory has shaped HE policy in many developed countries and remains the dominant paradigm in the economics of education (Dearden et al., 2009). However, from the early 1970s, many scholars have questioned the relationship between education and productivity. Some economists (e.g. Arrow, 1973; Spence, 1973) acknowledged that employers have only imperfect information concerning the productivity of their prospective employees. Desirable attributes of applicants (such as lower propensity to quit or to be absent) are not readily observed or measured at the time of hiring (Brown and Sessions, 2004). During the hiring process, employers have to make a decision under conditions of uncertainty about a worker's future performance (Brown, 2001).

To explain the positive relationship between education and earnings, the screening/signalling hypothesis was introduced as an alternative to human capital theory. The underlying argument is that education does not enhance an individual's productivity; rather, education is treated as a signal of existing productivity (Evans and Kelley, 2002; Chevalier et al., 2004).

3.2.2.1 The screening hypothesis

In his article "Higher Education as a Filter", Arrow (1973: 194) proclaimed:

"Higher education, in this model, contributes in no way to superior economic performance; it increases neither cognition nor socialisation. Instead, higher education serves as a

screening device, in that it sorts out individuals of differing abilities, thereby conveying information to the purchasers of labour”.

In a similar vein, Harvey (2000) and Brennan (2008) contend that a UK degree is perceived by employers as an evidence of ability and potential while knowledge and skills obtained from a degree play second fiddle during the recruitment process. In Brennan’s (2008: 4) words “it is the ‘selection’ function rather than the ‘training’ function that is most important in UK higher education”.

Putting it differently, the screening hypothesis concentrates on “the exchange value of educational qualification (credentials), rather than the cognitive attributes of the educated worker” (Marginson, 1993: 44). Given that educated workers are not a random sample, the screening hypothesis suggests that employers trust educational credentials and use them as a filter in order to identify the abler potential employees and screen-out unsuitable applicants (Gemmell, 1997; Smith, 2003). As Brown and Hesketh (2004: 31) observe, the paper qualification is regarded by employers as “the first tick in the box” to exclude the unqualified and then they “move onto the real selection”. The screening process enhances the efficiency of recruitment as it helps companies⁴¹ to cut down large pools of applicants into more manageable sizes. This, in turn, reduces their recruitment costs because the initial screening is usually carried out by computer software.

There are numerous screening devices available to employers including interviews, questionnaires, or simulation exercises; however, employers have to bear the expenses associated with these methods. Therefore, for employers, using HE attainment (e.g. grades, degrees or university prestige) is a more convenient and cost-effective approach when they need to assess candidates’ skills and estimate their training costs. Not only is this piece of information readily available, but also the costs of education are paid by the state and the individual. As Gemmell (1997) remarks, HE systems might offer companies a “privately cheap, but socially expensive screening system”. On the other hand, educational screening may “enable a better match of individuals to jobs and thus more efficient use of skills/resources which is beneficial in itself” (Matthews, 2014: 22).

3.2.2.2 Signalling role of education

On the supply side of the employment relationship, obtaining educational credentials gives an individual greater opportunity in the labour market. High-ability students realise that employers use education as a screen and therefore they acquire high levels of education.

⁴¹ The screening process is more likely to occur in large multinational companies rather than in SMEs or in the public sector.

Thus, a qualification is essential in order to get a job but it is not necessary in order to perform the job (Felstead et al., 2007). Brown (2001) maintains that graduates use their degree to signal their discipline, competence, productivity potential and capacity to learn to employers. In return, graduates, who have been pretested by universities, are offered higher salaries than non-graduates (Layard and Psacharopoulos, 1974). Low ability students might try to get a degree as well in order to succeed during the screening process. However, given their lower ability, obtaining a degree is more costly because they have to devote more time and effort to their studies. They also have a higher probability of exceeding the standard period of study which can result in paying an additional tuition fee.

In the economics literature, we can find two types of signalling. The so-called strong signalling hypothesis (SSH) views education only as a way to identify the pre-existing productivity of the individual; its role in enhancing the productivity is negligible (Arrow, 1973; Harmon et al. 2003). For example, Gemmell (1997) assumes that graduates are inherently more productive irrespective of their education. On the other hand, the weak signalling hypothesis (WSH) accepts that education has both a signalling and productive function. The WSH presumes that screening is only important during the hiring process because employers do not have enough information about applicants' productivity. However, employers eventually learn the true productivity of their employees and adjust their wages accordingly. Under the SSH, on the other hand, employers continue to pay higher wages to more educated workers even after observing them on the job (Arabsheibani and Rees, 1998).

Both human capital theory and the screening/signalling approach maintain that those with credentials are more productive than those without credentials. The former asserts that schooling augments an individual's productivity; the latter, on the other hand, views schooling as a way to identify productive individuals. According to the human capital theory, the absolute amount of schooling is important because each additional year contributes to an individual's productivity. On the other hand, the market-signal view suggests that "it is a person's relative position in the distribution of education that counts" (Sørensen and Kalleberg, 1981: 69). In other words, relative educational attainment (i.e. the individual's rank in a cohort of workers) plays a more important role in determining labour market outcomes than an individual's stock of human capital (Johnes, 2004). Education is regarded as a positional good – its value depends on how many people have it (Dore, 1976).

3.2.2.3 Sheepskin effect

While human capital theory takes into account only accumulated years of schooling, sorting models put emphasis on the role of credentials in determining earnings. According to the human capital model, every year spent at university contributes equally to an individual's productivity and therefore has a same rate of return. By contrast, the screening hypothesis posits that mere attendance is not enough; students have to graduate to be rewarded in the labour market (Layard and Psacharopoulos, 1974; Groot and Oosterbeek, 1994; Ferrer and Riddell, 2002; Brown and Sessions, 2004). Put differently, educational credentials have an independent effect on returns to education.

The so-called sheepskin effect refers to “the difference in earnings between individuals possessing a diploma and those who do not, conditional on years of schooling” (Jaeger and Page, 1996: 733). It has been observed that individual earnings are a step function of years of schooling; in other words, there are discontinuities at certain points (Ferrer and Riddell, 2002). The sheepskin effect is thus used to explain non-linear returns to different years of education. As Bills and Brown (2011: 2) point out, certain levels of schooling (e.g. final year of college) “are rewarded beyond their contribution to marginal productivity”. A disproportionate increase in wage rates is associated with the “years of education that correspond to the completion of degrees” (Trostel and Walker, 2004: 1959). One way to measure the sheepskin effect is to analyse the differences in the rate of return for degree completers and dropouts with the same number of school years completed. One other possible method to measure the sheepskin effect is to compare earnings of graduates with the same diplomas but different years of schooling.

As mentioned above, there are similarities between sorting and human capital models. Both approaches assume that “profit-maximizing firms compete for utility-maximizing workers” and “individuals choose the quantity of education that equates the marginal returns and costs of schooling” (Brown and Sessions, 2004: 76). In empirical research, it is problematic to separate these two theories because both imply a positive relationship between the amount of education and earnings. As Card (1999: 2) notes, it is “very difficult to know whether the higher earnings observed for better-educated workers are caused by their higher education or whether individuals with greater earning capacity have chosen to acquire more schooling”. A number of studies have attempted to discriminate between human capital and signalling explanations using various approaches.

Some studies have been based on an employer learning model. When recruiting, employers have only limited information about the productive abilities of a candidate. Nonetheless,

employer observes job performance of its employee and over time the employer will learn about worker's true productivity (Bills, 2003). If the initial estimate of potential productivity was incorrect the employer will behave rationally and make adjustments to worker's wage. If schooling does not enhance the productivity and serves only as a screen, then the importance of education as a predictor of an individual's income would decline as job experience accumulates. Psacharopoulos (1979) investigated mid-to-early career earnings ratios in the UK. He found no evidence of converging earnings profiles with work experience. Similar findings were obtained by Arabsheibani and Rees (1998). Thus both studies refuted the SSH. However, Boesel and Fredland (1999) argue that this approach does not separate the two explanations because if education is used as an effective screening system, then those with a higher level of education are more productive and consequently their income over a lifetime will be higher on average. In other words, the high private returns from HE are also consistent with the view that education does not augment productivity.

In 1979, Psacharopoulos proposed the so-called P-test which aims to compare the rates of return to education in the competitive and non-competitive sectors of the economy. He used data for the UK economy and found the returns to education to be higher in the competitive sector where the worker's productivity is important. Arabsheibani and Rees (1998) replicated this approach within the UK and revealed that one year of additional schooling added 9.7% to earnings in the private sector and 6.1% in the public sector.

In line with signalling theory, one may assume that people who intend to become self-employed are less likely to go to university because they know their productivity and they do not need to signal their ability to employers. Nevertheless, Lazear (1977) asserts that self-employed workers may need educational credentials to signal their ability to clients. In their study, Brown and Sessions (1999) use self-employed workers in Italy as an unscreened control group. The value of education as a signal was measured by comparing different rates of returns to schooling for the self-employed and for employees. Their results show that both groups benefit from human capital investment but employees have higher rates of returns to education compared to the self-employed which supports the WSH⁴². By contrast, Harmon et al. (2003), using British data, found comparable rates of return between the two groups concluding that the signalling effect is quite small.

⁴² The SSH implies significant returns only for those who are employed.

3.2.2.4 Summary

Human capital theory seems to explain more of the correlation between education and earnings than the screening hypothesis (Layard and Psacharopoulos, 1974; Groot and Oosterbeek, 1994). Nevertheless, despite being portrayed as a challenge to human capital theory, sorting models could be “better seen as offering incremental adjustment to the theory” (Bills, 2003: 448). Indeed, Weiss (1995: 134) asserts that “sorting models of education can best be viewed as extensions of human capital models”.

In the same manner, Dolton (1985: 32) states that:

“there are reasonable grounds to support a compromise interpretation of the education-income association which gives credence to both human capital and screening theory but supports an extreme version of neither”.

Riley (1979) found some support for the signalling value of education concluding that the weak screening hypothesis offers a better explanation of wage determination than human capital theory. A number of studies in the US and Canada have also confirmed the existence of a significant diploma effect for post-secondary degrees (e.g. Hungerford and Solon, 1987; Belman and Heywood, 1991; Jaeger and Page, 1996; Ferrer and Riddell, 2002; Trostel and Walker, 2004). Within the UK context, Matthews (2014) estimates that 10% to 30% of graduates’ extra earnings are due to the signalling effect of their degree. He adds that the importance of signalling varies with time and a graduate’s subject.

As discussed earlier, we have to bear in mind that it is intrinsically difficult to separate these two theories empirically because we cannot directly observe a worker’s productivity. Even if productivity was fully observable, it would not be possible to measure exactly “what proportion of the higher incomes of educated people is due to education and what proportion to native ability” (Quiggin, 1999: 131). In order to distinguish between human capital and sorting models, Bidwell (1989) proposes five independent measures. A well-designed study should take into account work productivity, years of completed education, certification, trained capacity and various elements of cultural capital. He admits that “such research would pose formidable problems” (Bidwell, 1989: 134). On a similar note, Bills (2003: 460) urges both sociologists and economists to specify and measure the “core concepts underlying theories of human capital, screening, credentialism, and the rest”.

Finally, very little is known about students’ perceptions of the mechanism “through which their education translates into occupational and social status” (Sanquirgo et al., 2004: 296). As Killeen et al. (1999: 101) point out, it is important to understand what “young people...think they are doing when they invest in education”. Their small-scale study focused

on English pupils who overwhelmingly believed that the primary function of education is to signal their abilities in the labour market; the role of education in raising productivity was perceived as a subordinate one. A similar study, exploring the link between education and labour market outcomes, was undertaken in France. The results were similar - French pupils also perceived academic degree more as “evidence of achievement than a factor enhancing productivity in the workplace” (Sanquirgo et al., 2004: 295).

3.2.3 Social closure theory - credentialist view

Both human capital and sorting models are consistent with meritocracy – a social system “where individual talent and effort, rather than ascriptive traits, determine individuals’ placements in a social hierarchy” (Alon and Tienda, 2007: 489). By contrast, credentialism explains the relationship between education and socio-economic attainment as a result of a class conflict. Credentialism shares the same assumption as the strong screening hypothesis suggesting that education does not enhance one’s productivity. Nevertheless, while the screening model assumes that those with higher education levels are inherently more productive, credentialism argues that there is no positive correlation between education and economic productivity (Sanquirgo et al., 2004). Since credentialism questions the assumption of a positive link between wages and labour productivity it is often overlooked by economists for whom the rejection of this economic axiom is anathema (Bills, 2003).

Education has been associated with high economic and social status since the colonial period (Collins, 1971). The origins of social closure theory can be found in the work of Max Weber. Throughout history, there has been a struggle between status groups for wealth, power and prestige (Collins, 1971). Weber’s concept of status groups posits that education indicates membership in a status group which control access to particular jobs. According to Collins (1979: 9), education “is an artificial device for monopolising access to lucrative occupations”. Liu and Sakamoto (2002) add that degree is merely a “credential” which serves status groups to either remain dominant or gain status. Similarly, Chillias (2010) points to the stratifying effect of qualifications, arguing that they give disproportionate privileges to their holders.

The education system is organised and controlled by the dominant social groups which use their power and resources to protect their interest and consolidate their privileged position in society (Major, 2012). The main purpose of a university education is to teach values and manners rather than impart technical knowledge (Collins, 1971). Similarly, Bourdieu and Passeron (1990: 166) believe that education has “both a technical function of producing and attesting capacities and a social function of conserving power and privileges” but the latter is

predominant in modern societies. Discussing the role of education after graduation, Grayson (2004: 625) concludes that “even in an economy based on knowledge, some job outcomes are related to broader social dynamics in addition to the acquisition of human capital in universities”.

3.2.3.1 Social, economic and cultural capital

French sociologist Pierre Bourdieu distinguished three forms of capital: economic capital, which can be immediately and directly converted into money and “may be institutionalised in the forms of property rights”; cultural capital, which he argued could be converted into economic capital and “may be institutionalised in the forms of educational qualifications; and social capital” (i.e. “connections”), which, under certain conditions, can be converted into economic capital and “maybe institutionalised in the forms of a title of nobility” (Bourdieu, 1986: 247). His work help to explain the positive relationship between parental socio-economic background and children’s educational outcome.

Firstly, privileged parents possess a greater quantity of social and cultural capital which they can transfer to their offspring. Therefore, students from better-off families are more likely to have “the skills, habits and styles that are rewarded at the higher educational levels” (de Graaf et. al, 2000: 93). By contrast, young people from disadvantaged backgrounds are less likely to go to a prestigious university (HEFCE, 2013), and if they do, their lack of cultural capital may have an adverse effect on their educational attainment. Secondly, students from affluent families tend to have higher levels of economic capital and are more likely to afford the opportunity costs associated with HE. They usually have better access to extracurricular activities and can afford to gain experience through unpaid internships (de Graaf et al., 2000; Milburn, 2012). The third mechanism whereby the upper classes may maintain their relative advantage is their social networks – they tend to have better information on educational opportunities and ties to more influential people (Triventi, 2013).

Similarly, economic success and occupational status in the labour market are largely determined by individuals’ social capital (“whom you know”) and cultural capital (“fitting in”) rather than by his/her own ability and effort (Galindo-Rueda and Vignoles, 2002; Brennan and Shaw, 2003; McNamee and Miller, 2009). It has been suggested that middle-class graduates are more likely to know the ‘right’ people and have the ‘right’ values and lifestyles (Brennan and Shaw, 2003).

Employers behave non-rationally and require individuals with certain credentials even though these credentials “have little or nothing to do with actual productivity on the job” (Boesel and Fredland, 1999: 77). As Collins (1971: 1011) argues, employers rely on

educational credentials in order to hire respectable people who are “socialised into the dominant status culture”. Similarly, Brown (2001) believes that recruiters are looking for employees with “similar, school-taught cultural dispositions”.

3.2.3.2 Credential inflation

Employers are also partially responsible for the credential inflation as they have artificially raised the bar for many professions. Educational requirements are nowadays notably higher even though the job content has remained unchanged (Dolton and Vignoles, 2006; Brown et al., 2011). As Chevalier and Lindley (2009: 333) explain, “non-traditional graduate jobs have been upgraded to make use of the additional supply of graduates”. Thus, a Bachelor degree is now often required for occupations where degree knowledge is unnecessary to perform corresponding job tasks (Sanquirgo et al., 2004; Barone and Ortiz, 2010). The positional advantage that used to be available to A-level entrants is now available to graduates but at greatly increased cost (Killeen et al., 1999). Williams (2013) believes that many graduates struggle to secure a decent job and they are forced to pursue a Master degree to enhance their employability. In other words, the value associated with a particular qualification has been declining over time. Bills and Brown (2011: 2) define this trend as a “process in which the educational requirements for jobs “ratchet up” more rapidly than would be demanded by any technologically induced changes in the skill requirements of those jobs”. Dore (1976) describes credential inflation as a ‘diploma disease’. According to his thesis, students stay in school longer in order to get a job rather than to perform better at their future jobs.

Credential inflation is hardly a new phenomenon, though. By the end of the 19th century, home education was replaced by high school degree “as a mark of respectable middle-level status” in America (Collins, 1971: 1015). During the 20th century, educational levels rose dramatically throughout the developed world (Evans and Kelley, 2002). In the 1930s, a college degree became the social norm and since the 1960s employers have been requiring a university degree for traditionally middle-class occupations to maintain prestige and respectability (Collins, 2011). Furthermore, Brown et al. (2008: 143) maintain that in today’s globalised world the positional advantage of graduates is “not only declining domestically... but also globally as access to tertiary education becomes more widespread both within and across the countries”. Nevertheless, it should be noted that expansion in the supply of graduates is also driven to some extent by consumer demand (Chillas, 2010). Brynin (2012) refers to a self-fulfilling prophecy since having a Bachelor degree is perceived as the norm in today’s society which in turn increases the demand for HE.

3.2.3.3 Overeducation

Credential inflation is closely related to the problem of overeducation. Dolton and Vignoles (2006) describe overeducation as a situation when graduates are in employment which requires only sub-degree level qualifications or no qualification at all. Several studies have put a spotlight on the mismatches between labour market demand and graduate supply (e.g. Battu et al., 1999; Dolton and Vignoles, 2000; Green and Zhu, 2010; Purcell et al., 2012). At the individual level, there are several drawbacks associated with overeducation. Firstly, an overqualified worker usually incurs a considerable pay penalty (Dolton and Vignoles, 2000; Green and Zhu, 2010). However, as McGuinness and Sloane (2011: 135,142) point out, some graduates might voluntarily take up non-graduate jobs and “trade-off lower wages for other aspects of the job” (for example job security, preferred location, increased flexibility, or social status).

Secondly, overeducated workers are more likely to be dissatisfied with their jobs compared to “properly matched” workers. Young (1999) and Brennan (2008) revealed that UK graduates tend to feel that their degree is not essential to their careers and that their first graduate job does not require education to degree level. Similarly, Harvey (2000: 6) maintains that many graduates initially work in non-graduate positions which “provide only a low-level of challenge” and which are irrelevant to their field of study. Nevertheless, as Green and Zhu (2010: 12) draw to our attention, it is useful to distinguish between “formal” and “real” overeducation, according to “whether the over-qualification is associated with underutilization of skills”. The term “real” over-qualification refers to a situation when the individual is both over-qualified and over-skilled. On the other hand, “formally” overqualified workers are those who are overeducated but their skills are fully utilised. In a similar manner, Chevalier (2003) divides overeducation into two categories. ‘Apparent overeducation’ refers to a situation where a graduate is in a non-graduate job but satisfied with the match between qualification and occupation. On the other hand, ‘genuinely overeducated’ graduates are dissatisfied with the match.

Green and Zhu (2010) argue that in Britain, over-qualification itself does not have a detrimental effect on job satisfaction if it is not accompanied by skill mismatch. This view is also supported by McGuinness and Sloane (2011) who found a higher likelihood of job satisfaction for overeducated workers (despite their lower earnings) but lower levels of job satisfaction for over-skilled workers. The incidence of overeducation is a concern not only for graduates but for employers too. Firms employing overeducated workers may be paying a premium for skills they do not use (Evans and Kelley, 2002).

Finally, although the problem of overeducation has been acknowledged by a number of studies, it is rather difficult to compare their results, which tend to be derived from subjective employee responses and are subject to measurement error (Harmon et al., 2003; McGuinness and Sloane, 2011).

3.3 Students' earnings expectations

As discussed above, mass access to HE devalues the credentials of a first degree and increases competition in the graduate labour market (Papadatou, 2010b). Since the world of graduate employment⁴³ has become more competitive and congested, the nature of a graduate career has been changing too. Although an undergraduate degree is still valuable in terms of "opening the doors to potential careers and better-paid jobs" (Young, 1999: 2), it does not serve anymore as a "passport into graduate employment" (Harvey, 2000: 7). Recent graduates can no longer expect a "job for life, whereby their careers are anchored around single jobs and organisations" (Tomlinson, 2007: 286). According to Brown and Hesketh (2004: 30), the labour market prospects of graduates "are diverging in terms of income, status, and opportunities for self-development".

Although there are various motives for entering HE, the improvement of labour market prospects is generally believed to be the most influential factor (Connor et al., 2004). The financial returns to HE have been widely analysed; however, Brynin (2012) argues that traditional analysis of the returns to education is misleading because it does not take into account the uneven distribution of income. The average rate of return conceals the fact that the wage distribution is highly skewed (many workers receive lower wages, only a small proportion are highly paid). Brynin's (2012) suggestion is to compare wage distributions of graduates and non-graduates rather than calculating the graduate premium.

Moreover, Manski (1993) notes that it is impossible to measure objective returns to schooling if we do not understand how students form their expectations. Dickson and Harmon (2011: 1121) conclude that "understanding wage expectations is perhaps as critical as understanding actual distributions of outcome". Due to the reluctance of researchers in economics to use subjective data students' earnings expectations have not been widely analysed (Dominitz and Manski, 1996). The antipathy towards subjective data on

43 It should be noted that there is no generally accepted definition of graduate employment. For instance, Gottschalk and Hansen (2003) define a graduate job as an occupation where the proportion of graduates exceeds 90% or occupation where graduates receive at least a 10% wage premium over non-graduates. Purcell et al. (2004) classified graduate occupations into four categories (i.e. traditional graduate occupations, modern graduate occupations, new graduate occupations, and niche graduate occupations) and provided a description and examples for each category. On the other hand, Brynin (2012: 290) argues that many occupations are "neither clearly graduate nor non-graduate".

expectations does not seem to be warranted, though; as Botelho and Pinto (2004) showed, students have a tendency to “respond meaningfully to questions eliciting their earnings expectations”, even when no monetary rewards are in place.

Several studies attempted to compare students’ earnings expectations with actual salaries of recent graduates. The evidence is inconclusive but one has to bear in mind that these studies “differ considerably in respect to the methods applied...as well as to the underlying research questions” (Wolter and Zbinden, 2002: 458). Some studies have suggested that students can predict their achievable starting salaries quite precisely (e.g. Dominitz and Manski, 1996; Botelho and Pinto, 2004; Webbink and Hartog, 2004; Frick and Maihaus, 2016). Others have shown a mismatch between students’ expectations and reality (e.g. Smith and Powell, 1990; Blau and Ferber, 1991; Betts, 1996; Walter and Zbinden, 2002; Jerrim, 2008; Jerrim, 2011; Alonso-Borrego and Romero-Medina, 2014).

For example, a recent study in the UK revealed that students’ expectations are not in line with earnings in the graduate labour market – on average, students misjudge their starting salaries by more than £2,000 (Jerrim, 2008). According to the results published by High Fliers Research (2013), a sixth of final year students at 30 leading UK universities believed their salary would be £100,000 or more five years after graduation. To explain these “unreasonably” high expectations, Menon et al. (2012: 806) assert that individuals tend to distort their own earning prospects despite having a “generally realistic understanding of labour market returns”. In the same vein, Jerrim (2011: 507) asserts that students might be “knowledgeable about the graduate labour market”; however, they have a tendency to overestimate their academic ability (i.e. chances of obtaining a “good” degree) and, consequently, “their place on the graduate wage distribution”.

Recently some studies have provided more disaggregated analysis of the graduate premium suggesting that returns to graduation vary according to “entry qualification, social class, degree class, subject area, [and] higher education institution” (Adnett and Slack, 2007: 26). Other factors such as gender, region and ethnicity have been found to have implications for graduates’ subsequent employment (Little, 2001; Little and Tang, 2008; Delaney et al., 2011; Kemp-King, 2016). Thus, these factors may also influence students’ earnings expectations. The next part of this chapter discusses four groups of factors that may explain any differences in students’ earnings expectations.

3.3.1 Students’ personal characteristics and earnings expectations

The first group of variables focuses on personal characteristics including gender, age, ethnicity and socio-economic background.

3.3.1.1 Gender

It has been documented that gender is an important predictor of earnings in the labour market even for those with the same qualifications (e.g. Smetherham, 2006; Wilton, 2007; Ramsey, 2008; Wilton, 2011; Purcell et al., 2012; Kvačková, 2015). For instance, Furnham and Wilson (2011: 623) note that, despite a massive increase in female workforce participation, women are “still yet to gain earnings parity with men”.

Several studies have examined the earnings of UK graduates. According to Britton et al. (2016), there is a large gender pay gap that is particularly prevalent at the top end of the graduate earnings distribution. Chevalier (2011) found the male graduates in the field of economics earn 17% more than female economics graduates. Wilton (2007) reports nearly identical findings – a 19% pay gap between male and female business graduates. A gender pay gap exists in the Czech graduate labour market too where female economics graduates earn 15% less than their male counterparts (Nekuda and Sirovátka, 2012).

The differences between male and female students' earnings expectations have been highlighted in previous research. Smith and Powell (1990) discuss the evidence of self-enhancement in male students' earnings expectations. Self-enhancement is described as a propensity of individuals to “positively differentiate their own characteristics from those of others” (Smith and Powell, 1990: 195). On the other hand, earnings expectations of female students tend to be lower and more accurate (Smith and Powell, 1990; Blau and Ferber, 1991; Wolter and Zbinden, 2002; Botelho and Pinto, 2004; Brunello et al., 2004; Webbink and Hartog, 2004; Filippin and Ichino, 2005; Speed, 2007; Carasso et al., 2012; Menon et al., 2012).

Filippin and Ichino (2005) investigated the expected gender wage gap among university students in Italy. Although students in their sample were very homogenous in terms of human capital and personal characteristics, female students' earnings expectations were 9.7% lower than the earnings expectations of male students. Similar results were obtained by Menon et al. (2012) in Cyprus. Female students in their sample expected to receive lower salaries than their fellow male students by approximately 13%. A large-scale study conducted in Germany also found that “male students expect 13% higher salaries than observationally similar female students” (Frick and Maihaus, 2016). Alonso-Borrego and Romero-Medina (2014) focused on students' earnings expectations in Spain. While they found that female students had lower earnings expectations, their results also suggest that “women do not fully account for the gender gap in their future earnings” (Alonso-Borrego and Romero-Medina, 2014: 1). Finally, it should be noted that the expected gender pay gap has

a tendency to increase over time. Brunello et al. (2004: 1128) offer two explanations for this phenomenon: female students either expect to “end up in jobs with substantially lower relative earnings growth” or they anticipate possible career interruptions ten years after graduation.

3.3.1.2 Age

It has been documented that financial returns to HE are age-related. The younger the investor is, the greater the return is likely to be. Smith (2003) provides two explanations. The first one is related to working life span as younger graduates enjoy enhanced salaries for a longer period. Secondly, earnings increase with age due to experience. Consequently, opportunity costs for entering HE, measured as forgone income, are higher for mature students.

Previous research has found a relationship between students’ age and their earnings expectations. When considering the age of a student, previous studies have adopted two approaches. Some studies compared the earnings expectations of the first year and final year university students. First year students, who are younger on average, were found to have higher and less realistic salary expectations (Betts, 1996; Botelho and Pinto, 2004; Brunello et al., 2004; Jerrim, 2008; Alonso-Borrego and Romero-Medina, 2014). There are two possible explanations. Firstly, students learn about their own abilities during their studies at university and update their initial expectations accordingly (Betts, 1996; Zafar, 2011). Secondly, students who are close to graduation have had more time to collect information about labour market returns and they are likely to search information about employment prospects more intensively (Smith and Powell, 1990; Brunello et al., 2004; Dickson and Harmon, 2011).

Other studies have compared young students with mature students. Students who are above 21 at the beginning of their studies are defined as mature students. The UK has one of the highest rates of mature students in Europe. In 2014/2015 more than 66,000 mature students started full-time their first degree (HEFCE, 2016). In the Czech Republic students who are older than 26 years would be classified as mature but they are virtually non-existent for two reasons. Firstly, there is no alternative route into university - Czech HEIs are not allowed to accept non-traditional students without the formal Maturita qualification⁴⁴. Secondly, once students reach the age of 26 they are no longer exempted from paying mandatory health insurance.

⁴⁴ Maturita exam is an equivalent to A-levels.

3.3.1.3 *Ethnicity*⁴⁵

Over the last decade, minority ethnic populations in the UK have been increasing steadily and becoming more diverse. By the middle of this century, it is estimated that ethnic minorities will make up 20% of the UK's population (Rees et al., 2012). Students from ethnic minorities are better represented in UK universities than in the general population⁴⁶ (Crawford and Greaves, 2015; Boliver, 2016). In 2007, nearly one in six students was from a Black, Asian or other ethnic backgrounds (Kerr, 2010). Children of Asian origin are more than twice as likely to participate in HE than the average [white] British child (Shepherd, 2009; Barnard and Turner, 2011). Even the groups that were previously underrepresented in HE, such as Black Caribbean ethnic origin, are more likely to go to university than their white British peers (Crawford and Greaves, 2015); however, they are less likely to obtain offers from Russell Group universities than comparably qualified white applicants and, as a result, they are under-represented in the UK's most prestigious universities (Boliver, 2016).

It is necessary to point out that graduates from ethnic minorities are not a homogenous group. There are differences between individual minority ethnic groups and differences within each of the groups in terms of gender, location and generation status. Nevertheless, there has been a large improvement in their academic performance over the last decade. For instance, Chinese pupils from disadvantaged homes perform above the national average for all pupils at GCSE, while the academic attainment of Bangladeshi, Indian, Black African and Pakistani pupils from poorer homes is above the national average for disadvantaged pupils (Sutton Trust, 2016).

Previous research has shown that students from ethnic minorities are less likely than their white peers to achieve a first-class honours degree (Bhattacharyya et al., 2003; Brennan and Shaw, 2003; Connor et al. 2004; Richardson, 2008).⁴⁷ As degree attainment has a direct impact upon graduate employability, it is not surprising that UK graduates from some ethnic minorities tend to be relatively less successful on entry to the labour market despite being highly represented at UK universities (Little, 2001; Kerr, 2010). For instance, Black British graduates have higher unemployment rates and lower median salaries compared to White British and Asian British graduates (Office for National Statistics, 2016). Ethnic minority

45 It should be noted that the Czech Republic is an ethnically homogenous country with small Slovak (1.9%) and Polish (0.5%) minorities (Minority Rights Group, 2017).

46 It should be noted that pupils from some minority ethnic groups (e.g. Gypsy, Roma and Traveller) remain underrepresented in English HE (Mulcahy et al., 2017).

47 There are two possible explanations for their under-performance. The first one is their generally lower qualifications on entry into HE. Secondly, students from ethnic minorities favour subjects where it is more difficult to obtain a "good" degree (Leslie, 2005).

graduates are also more likely to return to postgraduate study than their white British peers (d'Aguiar and Harrison, 2016).

Previous research suggests that there is a relationship between ethnicity and choice of subject at university. Speed (2007) found Asian students to aspire to a career in accountancy, finance or investment banking. Similarly, Kerr (2010) maintains that students from ethnic minorities prefer entrepreneurial subjects such as business studies because once they graduate they are more likely to become self-employed compared to their white peers. Connor et al. (2004) show that when deciding about pursuing a degree, prospective minority ethnic students are more likely to be motivated by expected financial gains than white students. Moreover, students from ethnic minorities expect to earn more in their first career job compared to their white counterparts (Speed, 2007; Jerrim, 2008).

3.3.1.4 Socio-economic background

There is no doubt that students' social class can influence their educational and labour market outcomes. According to Jerrim et al. (2012), children with highly educated parents (i.e. Bachelor degree and higher) are five times more likely to be admitted to university than those with the lowest parental education (i.e. less than college). This inequality is also evident in the Czech Republic where 87% of graduates want their children to have a degree; by contrast, only one quarter of parents from manual backgrounds consider HE as the most suitable option for their offspring (Šťastný, 2011).

Although the student population in the UK has expanded and become more diverse, young people from poorer working class families are less likely to attend university and they are concentrated in the newer, less prestigious universities where entry requirements are lower (Shepherd, 2009). This is partly explained by working-class students' relatively poor performance at both GCSE and A-levels compared with their middle-class peers (Brennan and Shaw, 2003; Greenbank, 2006).

Moreover, in the UK there is a link between students' social class and university ranking. The number of students educated in private schools is disproportionately higher at elite universities. In 2010, 29% of students admitted to the Russell Group universities were from independent schools (British Educational Research Association, 2012), whereas such schools educate only 7% of secondary age pupils. According to the Sutton Trust (2010a), the chance of being accepted at Oxford or Cambridge is 55 times higher for pupils from independent schools than for pupils entitled to free school meals. Similarly, Boliver (2017) notes that only 10% of Oxford and Cambridge entrants are from working-class families as

compared with 32% of all HE students nationally. Reay et al. (2000: 858) conclude that prestige universities remain “overwhelmingly white and middle-class in composition”.

Previous research has shown that students from lower-income families are more likely to take up part-time employment and work longer hours to support themselves during university studies (Connor et al., 2004; Brennan and Shaw, 2003; Greenbank and Hepworth, 2008). Although work experience is generally valued by employers, students usually have a low paid, semi-skilled job which is not related to the content of their main course of study (Curtis, 2007). To obtain a positional advantage in a competitive labour market, students and graduates are “forced” to undertake extracurricular activities such as voluntary work, travelling or internships (Tomlinson, 2008; Jensen, 2009; Papadatou, 2010a). Nevertheless, due to time-consuming and typically unpaid nature of these “CV enhancing” activities, students from working-class backgrounds “are less likely to be able to take up opportunities for voluntary/unpaid work in their chosen field than their middle-class peers” (Moreau and Leathwood, 2006: 38). Purcell et al. (2012: xxiv) found that students from routine and manual backgrounds are less likely to engage in extra-curricular activities due to a “lack of finances, self-confidence or time”. As a consequence, their lack of relevant experience may negatively affect their earnings expectations⁴⁸.

Furthermore, it has been argued that working class students are “unlikely to have connections with people of knowledge or influence” (i.e. social capital) and their cultural capital is not valued in the graduate labour market (Greenbank and Hepworth, 2008: 13). Graduates from poorer backgrounds have a lower probability of being employed in a graduate occupation and are more likely to feel over-qualified (Brennan and Shah, 2003; Behle, 2016). Even those working class graduates who manage to secure graduate employment remain disadvantaged in the labour market. As Purcell et al. (2002: 1) observe:

“They earn less, on average, than a similarly qualified labour market entrant from ‘traditional’ graduate backgrounds and tend to evaluate their current employment and career development less positively”.

Similar findings were obtained by Brennan and Shah (2003) who found graduates from lower socio-economic backgrounds to experience an average initial salary gap of around £1,000 compared with graduates from more advantaged backgrounds. Britton et al. (2016) focused on the role of parental income in the graduate labour market. They discovered that there are differences among graduate earnings - those from higher income households⁴⁹ earn more

48 To my knowledge, no previous study on students' earnings expectations has taken students' existing work experience into account.

49 Defined as households in the top 20% of the income distribution.

(up to around 60% for males and 45% for females) than other graduates, even after completing a similar degree from similar universities.

Crawford and Vignoles (2014) examined the relationship between the type of school attended and subsequent earnings. They analysed graduate earnings six months and 3.5 years after graduation. One of their main findings indicates that those who attended private school prior to entering university earn around 7% (£1,500) more on average even after controlling for degree subject, university attended and degree class. Moreover, their results also suggest that this “private school premium” is relatively constant over time.

In terms of earnings expectations, a common theme is that students from more affluent families expect to earn significantly more after graduation. Indeed, Delaney et al. (2011) found that, although equally talented and ambitious, poorer university students in Ireland have significantly lower earnings expectations compared to their richer peers. Similarly, students from wealthy families in Cyprus expect to earn about 10% more than those from lower income families⁵⁰ (Menon et al., 2012). Webbink and Hartog (2004) conducted their research in Netherlands where they also found students from high-income families to expect higher incomes after graduation. Jerrim’s (2008) findings also support this hypothesis; students from better-off families expected significantly higher starting salaries than students with parents earning below £20,000. On the contrary, family income was not found to have an impact on students’ wage expectations in Spain (Alonso-Borrego and Romero-Medina, 2014). Some studies focused on parental education instead of family income when analysing students’ expectations. For instance, Brunello et al. (2004) found mother’s education to be positively and significantly correlated with earnings expectations. On the other hand, Frick and Maihaus (2016) found no evidence of “social wage gap” in salary expectations of German students.

It is necessary to point out that the concept of social class is not that important in the Czech Republic. During the communist era (i.e. 1948 – 1989) private ownership was eliminated and there was a little difference between professions in terms of workers’ wages (Munich et al., 2000). As a result, the country had a relatively equal distribution of income. After the end of the communist regime in 1989, Czech society started developing a class system similar to those in other capitalist countries. Nevertheless, to this date, the income distribution is still relatively equal compared to other European countries (OECD, 2017). As a consequence, Czech students could be expected to be more homogeneous in their expected graduate earnings than their English counterparts.

⁵⁰ High-income was defined as an annual family income over 34,200 Euro.

3.3.2 Education and students' earnings expectations

This section discusses the possible effects of entry qualification and degree grade on students' earnings expectations. The impact of study abroad and postgraduate studies on graduates' labour market outcomes are also addressed. University prestige and subject studied influence graduate earnings hence they were included in this section.

3.3.2.1 Entry Qualifications

Numerous studies have confirmed the link between prior educational attainment and students' degree performance (e.g. Smith and Naylor, 2001; Naylor and Smith, 2004; Purcell et al. 2012; HEFCE, 2014a). While more than 80% of students with grades AAB or above achieve a "good degree", less than 50% of those with A-level scores CCC or lower do so (HEFCE, 2014a). It has been suggested that "employers do not trust university degree classes to signal minimum standards" since a quarter of the "most sought-after employers" require a minimum number of UCAS entry tariff points at A-level or the equivalent (Matthews, 2013b).

Speed (2007) revealed that students who enter university with less than 240 UCAS points have lower earnings expectations than those with 360 points or above. Jerrim (2008) observed that high ability students (i.e. students with 381 UCAS points or more) expected to earn around 16% more than someone of average ability (i.e. UCAS score equal to 290 points); however, there was a negligible difference in wage expectations when comparing average and low ability students (i.e. UCAS score below 290 points).

3.3.2.2 Degree grade

The class of a degree is commonly used by large UK graduate recruiters as a filter to keep the number of applications down to a more manageable level. In 2012, 76% of major graduate employers⁵¹ used a 2:1 classification as a benchmark for their recruitment (Association of Graduate Recruiters, 2012). As a consequence, there is a sharp divide in employment prospects between graduates with 2:2 and those with 2:1 degrees as many applicants without an upper second (or first class) degree are automatically rejected⁵².

The level of achievement has a positive effect on graduate earnings. Smetherham (2006: 36) found those with first class degrees to be more likely "to earn greater money" compared

⁵¹ The Association of Graduate Recruiters (AGR) conducts a bi-annuals survey among its members. In 2012, the AGR had 750 members from both the public and private sectors.

⁵² This approach has been criticised by top academics because the border between grades can be determined by a few marks (Ewing, cited in Crane, 2012).

with those with lower-second class awards. Walker and Zhu (2011) estimate that having a “good” degree increases the internal rate of return by up to 3%; concluding that there is a strong return to effort. Feng and Graetz (2013: 14) found that a first class and upper-second class are “worth around £1,000 and £2,040 per annum respectively”. According to Ramsey (2008), graduates with a first class degree earn on average 18% more compared to those holding a third class degree. It is noteworthy that male graduates benefit more from their academic achievement as their premium stands at 27% compared with a mere 11% for female graduates. Similar findings were obtained by Conlon and Patrignani (2011) who found male graduates with a first class honours degree earn 13.7% more compared to male graduate with an upper-second class. On the other hand, for female graduates, the difference was only 8.3%. Moreover, there is some evidence that graduates who achieve upper second or first class degree are less likely to become overqualified (Smetherham, 2006; Green and Zhu, 2010; Behle, 2016).

Brunello et al. (2004) attempted to measure the effect of individual ability on earnings expectations. They asked students to assess subjectively their perceived academic ability vis-à-vis that of their peers. Students who ranked themselves as above average in their class consistently expected to earn more after graduation. Frick and Maihaus (2016) also explored the relationship between final grade and earnings expectations of German students. According to their findings, 1.0 increase in final grades was associated with 2% increase in expected graduate starting salaries.

It should be noted that in the Czech Republic there is no degree classification used and average marks are not included in the final diploma. HEIs award a so-called ‘red’⁵³ diploma to outstanding students; all other students who have successfully completed the course are awarded a so-called “blue”⁵⁴ diploma. However, every HEI has its own criteria for awarding “red” diplomas. Therefore this information is rarely used by employers during the recruitment process.

Nekuda and Sirovátka (2012) examined the effect of average study results on the starting salaries of Czech graduates. They found that those with better study results tend to have lower starting salaries. They provide a couple of explanations for this rather surprising finding. Firstly, female students achieve better grades on average but their salaries are lower. Secondly, those with higher grades are more likely to pursue a postgraduate degree. As the financial support available to postgraduate students is minimal, many postgraduate

53 Graduates obtain diploma inside a red folder.

54 Graduates obtain diploma inside a blue folder.

students juggle their studies with a job outside academia. However, their job is usually less-demanding with a lower pay and fewer hours. Finally, graduates with lower average grades might have been gaining work experience during their studies which in turn helped them to secure a positional advantage in the graduate labour market.

3.3.2.3 University prestige

When investing in human capital, individuals have to make a decision not only about the level of education but also about which particular institution to attend (Oosterbeek et al., 1992). The ending of the binary system in England in 1992 has resulted in a new hierarchy of HEIs where prestigious research universities “have emerged as a top layer of elite institutions (Reay et al., 2001: 858). As a consequence, the reputation of the university attended is an important determinant of a graduate’s labour market success (Brown and Hesketh, 2004; Britton et al., 2016; Kemp-King, 2016).

It has been suggested that many large UK employers prefer graduates from particular institutions for recruitment and a greater emphasis is put on “where rather than what the graduate has studied” (Young, 1999; Little, 2001; Brennan, 2008). As Papadatou (2010b) maintains, there has been some evidence that graduate employers prefer graduates from elite Russell Group universities. Brown and Hesketh (2004: 31) add that prestigious universities have been targeted for decades by companies in search of “high fliers”.

On the other hand, there were no Czech university league tables available until recently and employers did not discriminate between graduates from different public institutions. However, since the introduction of private HEIs and with an increasing number of graduates from public universities, Czech companies have become more selective when hiring graduates (Nekuda and Sirovátka, 2012).

Students graduating from pre-1992 universities (including Oxford and Cambridge) in the UK are less likely to become over-qualified than those graduating from other universities (Brennan and Shah, 2003; Green and Zhu, 2010; Wilton, 2011; Behle, 2016). Norton (2008) found that graduates from research-intensive universities were more likely to secure a graduate level job than those from other universities. In a similar vein, Smetherham’s (2006) study found graduates from elite institutions to be four times more likely to obtain a place on a fast-track graduate training scheme.

Furthermore, university quality and prestige can possibly help to explain the differences in graduates’ earning profiles. It has been acknowledged that graduates from Russell Group

universities receive a wage premium⁵⁵ compared to the other pre-1992 and post-1992 university graduates, although the difference is not a large one (Brennan and Shah, 2003; Chevalier and Conlon, 2003; Wilton, 2007; Norton, 2008; Ramsey, 2008; Abreu et al., 2015; Britton et al., 2016).

Ramsey (2008) analysed the average graduate starting salaries across the UK university sector. By putting the universities in a rank order, he found that earnings of graduates from the lowest ranked university were only about one third of the level at the highest ranked university. Another study comparing graduate earnings in the UK revealed that graduates from less selective post-1992 universities had an average starting salary of £18,009 per year, whereas Oxbridge graduates earned on average £25,582 per year in their first graduate job (de Vries, 2014). According to Britton et al. (2016), the effect of an institution is important at the top end of the graduate earnings distribution but at the bottom 20th percentile, the institutional variation is much reduced. In addition, Wilton (2011) found that business and management graduates from ‘old’ universities have higher salaries and a greater propensity to be working in the banking and finance sectors; compared with graduates from ‘newer’ institutions who are more likely to be found in public services and tourism.

Nonetheless, it remains doubtful whether the Russell Group earnings premium is present in students’ expectations. According to Speed (2007)⁵⁶, students who attend a non-Russell Group university have lower salary expectations compared with their Russell Group peers. Similarly, Russell Group students in Jerrim’s (2008) sample⁵⁷ expected to earn around 7% more after graduation. However; he points to the fact that Russell Group universities tend to accept higher ability students. Thus Russell Group premium found in his data is almost entirely explained by differences in ability.

3.3.2.4 Subject of study and career preferences

The subject of study and career preferences can also determine graduate employment prospects. Purcell et al. (2012: xviii) have observed that “not all graduate jobs are valued in the same way”. Solmon and Fagnano (1993: 148) provides the following explanation for this phenomenon:

“Individuals receiving different degrees from the same institution face different demands for their skills. The price of labour is not only a function of the marginal physical product of the

55 The earnings premium for Russell group reported in the literature ranges from 6% to 17%.

56 The sample included over 14,000 students domiciled in Britain.

57 3,548 students from 69 institutions

labourer but also the price that the market is paying for that labour. Thus, individuals with similar ability levels in different fields can have significantly different earnings”.

Chevalier (2011) discovered large differences between subject wage premiums in the UK. His results indicate high wage premia for medicine graduates who earn on average twice as much as psychology graduates. Walker and Zhu (2011) reported high financial returns for law, economics and management degrees. According to Conlon and Patrignani (2011), an undergraduate degree in the field of business and administrative studies offers above average returns. Similarly, Britton et al. (2016) who analysed earnings of English domiciled graduates found that some subjects (including medicine, economics, law, maths and business studies) deliver “substantial premiums over typical graduates”. On the other hand, Chevalier (2011) found below average salaries for graduates in business, finance and accounting.

Jerrim (2008) found students pursuing a degree in Medicine and Education to have more realistic earnings expectations. He explained that these subjects lead to a particular career and students are “more likely to research specific jobs and have better knowledge of the labour market they face” (Jerrim, 2008: 25). By contrast, students studying Languages and Social Sciences who are more likely to enter the more general labour market, with less certainty about their future prospects, were found to overestimate their starting salaries.

Moreover, career preferences are likely to have an impact on graduate earnings. For instance, in the UK average earnings are slightly higher in the public sector compared to the private sector (Cribb et al., 2014; Office for National Statistics, 2014b). On the other hand, workers in the public sector in the Czech Republic earn less and their earnings are more uniformly distributed due to the existence of so-called “pay tariffs” (Šitner, 2016). Moreover, a career in the public sector is perceived as more secure due to greater stability of the sector. Another factor that might influence graduate earnings is job flexibility – full-time workers tend to be paid more per hour than part-time workers (Office for National Statistics, 2014b).

3.3.2.5 Postgraduate studies

In the Czech Republic, most students continue their studies towards a Master degree which is generally required by graduate employers. By contrast, the main “exit” qualification with which graduates in the UK leave higher education is a Bachelor degree (Little and Tang, 2008). Hence, UK graduates spend less time in higher education and obtain lower-level qualifications (Brennan, 2008; Arthur and Little, 2010) compared to graduates in the Czech Republic. Nevertheless, a postgraduate degree is nowadays necessary for many

professional jobs and increasing number of UK graduates embark on a postgraduate study to improve their chances in the labour market (Lindley and Machin, 2013; Kemp-King, 2016).

Unlike undergraduate students who are entitled to a tuition fee loan, students who started their Master degree before the academic year 2016/2017 had to pay their tuition fees up front. The necessity to pay up front was perceived as a financial obstacle for students from disadvantaged backgrounds. As Milburn (2012: 5) warned, postgraduate education is a “real time-bomb in terms of social mobility”. For instance, a study by Norton (2008) revealed that graduates from research-intensive universities are more likely to be undertaking further studies three years after their graduation. Similarly, d’Aguiar and Harrison (2016) found graduates of pre-1992 universities to be 61% more likely to return to postgraduate studies than graduates of post-1992 universities. In light of the previous discussion on students’ socio-economic background, this is hardly surprising.

An attempt has been made by the British government to remove the barrier to postgraduate study. A post-graduate loan system was introduced - from 2016/2017 a loan of up to £10,000 is offered to students undertaking a Master degree. However, there is no cap placed on tuition fees with two universities⁵⁸ charging more than £30,000 for some of their taught postgraduate courses (Times Higher Education, 2016). Therefore, the loan is unlikely to cover both tuition fees and living expenses.

Students who are planning to continue for a Master or doctoral degree might have higher salary expectations. Walker and Zhu (2011) confirm the existence of a postgraduate premium. Their results showed that males with a Master degree earn 12% more than those with a Bachelor degree and PhD holders earn 4% more compared to those with Master degree. The effect of a postgraduate qualification is even larger for females for whom Master and PhD degrees add 17% and 7% to their income respectively. Similar findings were obtained by Conlon and Patrignani (2011) who found the average return to a Master degree to be 9% for men and 10% for women. According to research conducted by Lindley and Machin (2013), those with Master degree earn on average £200,000 more over a 40-year working life than those who hold only a Bachelor degree.

Only two known studies have considered a possible impact of postgraduate degree on students’ expected earnings. Menon et al. (2012) who conducted their research in Cyprus found that students who intended to continue their studies at a postgraduate level expected to receive the postgraduate premium. They believed they would earn 9% more compared to

58 London School of Economics and the University of Warwick.

those who planned to leave HE with an undergraduate degree. Frick and Maihaus (2016) also found an evidence of postgraduate premium in students' expectations. According to their results, German students who intended to leave university with a Bachelor degree expected to earn 6% less than those who planned to do a Master degree.

3.3.2.6 Study abroad

Many organisations operate at the international level in today's globalised world. Thus, multinational companies prefer individuals who are culturally aware and able to speak at least one foreign language. This has been acknowledged by governments and universities which have been encouraging students to study abroad as a part of their degree. To increase mobility among students, various exchange programs have been launched to provide some financial support for outgoing students. One of the most successful student exchange programmes is Erasmus which was introduced in 1987 by the European Commission. Since that, more than 4000 HE institutions have joined the programme and nearly 3 million students have participated (European Commission, 2013).

Facilitating mobility was also one of the main targets of the Bologna process. By 2020, the European Commission would like to see 20% of European students spend some time working or studying in another country (European Commission, 2010). Despite these efforts, the number of students who spend part of their studies abroad remains low. The UK has some of the lowest participation rates. In 2011/2012 only 9,094 UK students studied abroad under the Erasmus programme which represents approximately 0.4% of the HE student population⁵⁹. In the same academic year, the Czech Republic registered 6,059 outgoing students which are approximately 2.1% of all students⁶⁰. However, it should be pointed out that, despite being the most popular, ERASMUS is not the only program available and some students arrange their study abroad independently. Hence the total number of graduates with some international experience is undoubtedly higher. It should also be noted that those studying abroad are not a random group. According to HEFCE (2009) findings, these UK students enter HE with higher qualifications than other students⁶¹. Moreover, young people from well-off backgrounds are over-represented in publicly funded educational exchange programmes which have been described as a means through which privileged families reproduce their socio-economic status (Kuhn, 2012).

59 Own calculation based on 2011/2012 data provided by the European Commission and HESA.

60 Own calculation based on 2011/2013 data provided by the European Commission and Czech Statistical Office.

61 Nearly half of students who studied abroad had over 360 UCAS points.

There has been some evidence suggesting that work and study abroad is appreciated by employers (Trooboff et al., 2008; Crossman and Clarke, 2010). Maiworm and Teichler (1996) surveyed the second cohort of former ERASMUS students to analyse the impact of study abroad on an individual's career. While the majority of students believed that study abroad helped them to secure their first graduate job, the impact of this experience on long-term career success and income level was perceived as negligible. By contrast, a study conducted by HEFCE (2009) has found that the median salary for graduates who studied abroad for part of their course was £3,000 higher than that for students who undertook a three-year course with neither a placement nor a year abroad. Similarly, the results from an IES Abroad (2012) survey indicate higher starting salaries for US graduates who studied abroad.

3.3.3 The effect of work experience on students' earnings expectations

Work experience is one of the soft credentials which might significantly facilitate graduates' transition from university to graduate/professional career. There are many ways by which students can obtain relevant skills and knowledge. The most popular schemes in the UK include supervised work placement, summer placement, internship and trainee programme.

Supervised work placements have become a "key route into many professional careers" (Jensen, 2009). Generally, students undertake placement after completing level 2 of their studies and return for their final year. It has been acknowledged that participation in supervised work placement schemes has a positive impact on students' academic performance and enhances students' motivation in the final year (Gracia and Jenkins, 2003; Mandilaras, 2004). It has also been documented that employers are more willing to hire and offer higher compensation to interns who are perceived to be better prepared for future jobs than non-interns (Gault et al. 2010).

Although not all work placements lead to permanent employment, they enable students to acquire sector knowledge and employer contacts (Jensen, 2009). Students who undertake work placement are more likely to be employed six months after graduation and their starting salaries tend to be above the average (HEFCE, 2009; Papadatou, 2010a; High Fliers Research, 2013). Moreover, graduates who complete a sandwich degree are less likely to return to take taught postgraduate courses (d'Aguiar and Harrison, 2016).

The likelihood of a student's participation in the labour market during their studies is associated with some personal characteristics. Female students are more likely to be engaged in term-time work (Van Dyke et al., 2005; Curtis, 2007). Findings related to ethnicity are inconclusive. In Speed's (2007) research, over 80% of white British students have some

work experience compared to 70% of black students and 62% of Asian students. By contrast, Van Dyke et al. (2005) found ethnic minority students more likely to work than white students.

Czech students are also eager to gain experience before graduation. According to statistics produced by the Czech Statistical Office, more than half of students (57%) have some work experience and 42% of them have experience related to their future career (ČeSU, 2012). A survey conducted by Deloitte (2015) found 72% of Czech respondents to have casual work experience and 62% of them had a job or internship related to the field of study. Nevertheless, this research used a self-selected sampling strategy which could explain the high proportion of working students within the sample.

3.3.4 Graduate labour market situation and students' expectations

It has been documented that graduates “tend to be more migratory, achieving greater employment returns both by reason of their greater human capital and also their mobility” (Faggian et al., 2007: 517). Similarly, von Proff et al. (2017: 40) maintain that university graduates are more mobile than average since they tend to be “better informed about the job markets and be attracted by better economic prospects”. Graduates who are mobile internationally can increase their employability through “improved language proficiency, cultural awareness and global competences” (Behle, 2014: 291). Moreover, as Findlay et al. (2006: 294) point out, mobility might directly enhance career prospects “by adding to an individual’s social and cultural capital”.

There is some evidence to suggest that graduate mobility in the UK is closely connected with social class and ethnicity. Previous research has shown that graduates from ethnic minorities (black British and Asian British) are less migratory compared to white graduates (Faggian et al., 2007; Mosca and Wright, 2010; Abreu et al., 2015). Greenbank and Hepworth (2008: 29) surveyed working class students at one institution and found that over half of them wanted to “find a job within commuting distance of their home”. Furlong and Cartmel (2005: 19) focused on working class students in Scotland; their “respondents were reluctant to move and most expressed an overwhelming preference to work in their hometown or the west of Scotland”. By contrast, Behle (2014) found UK graduates from higher socio-economic backgrounds to be more likely to move to a different European country. There are several reasons why students/graduates from higher socio-economic backgrounds have higher migration propensities (Kratz, 2011). Firstly, they are more likely to receive financial and moral support from their families. Secondly, students from more affluent families are more likely to have some international experience prior entering university and they are also more likely to have good knowledge of foreign languages.

There is also a link between graduate mobility and university ranking. For instance, a study by High Fliers Research (2014) was aimed at final year students at 30 leading UK universities. Its results unveiled that London was the preferred employment destination - nearly half of finalists surveyed hoped to work in the capital after graduation. Mosca and Wright (2010) found graduates of Russell Group universities to have a higher probability of migrating both nationally and internationally. These findings are supported by Behle (2014) who found UK graduates from high-tariff institutions to be more likely to move abroad.

Nearly half of Czech students (45%) would be willing to relocate within the country in order to get a job and about one third of students (35%) would consider leaving the country permanently if they were offered an interesting job opportunity abroad (ČeSU, 2012). Similar findings were obtained by Nekuda and Sirovátka (2012) who found that 29% of recent graduates would be interested in working abroad. The number of mobile students was even higher in a study conducted by Deloitte (2015) where 72% of Czech respondents would move within the country and 62% would move abroad. Nevertheless, the sample in this study was biased since only students from the country's leading universities were included.

Labour market conditions at the point of graduation can also affect graduates' earnings and career prospects (Kemp-King, 2016). The unemployment rate for new graduates sharply increased during a global recession along with the number of graduates in non-graduate employment. As Verhaest and van der Velden (2013) argue, graduates entering the labour market during a recession are more likely to be overeducated for their first job because they face fierce competition from other highly-educated individuals. On a similar note, Oreopoulos et al. (2008) found that graduating in a recession leads to significant initial earnings losses.

The economic situation is likely to be reflected in students' labour market expectations. The study conducted by High Fliers Research (2010) showed that the "Class of 2010" remained gloomy about immediate employment prospects – only 36% of final year students expected to find a graduate job after university. Their graduate salary expectations dropped by 3.1% compared to the "Class of 2008" – final year students expected to earn £22,000 on average in their first job (High Fliers Research, 2010).

In 2014, students seemed to be more optimistic about graduate labour market opportunities – in Porter's (2014) research 79% of students expected to be in graduate level employment six months after graduating. The "Class of 2014" expected an average starting salary of £23,000; however, this is only £300 more compared to what the "Class of 2008" expected to earn six years ago (High Fliers Research, 2014).

The impact of the economic recession on earnings expectations is also evident in the Czech Republic. Czech university students expected to earn 28,500 CZK/month on average prior to the crisis; however, by 2012, the average expected starting salary dropped to 22,500 CZK/month (ČeSU, 2012). In 2014, the Czech economy returned to growth. A recent survey by Deloitte (2015) revealed that, in 2015, students' average salary expectations were 25,000 CZK/month after graduation. However, this study deliberately targeted "bright and ambitious young people at the region's best universities" which means that the sample was not representative of the entire student population (Deloitte, 2015: 6).

3.4 Conclusions

The purpose of this chapter was to introduce the theories that try to explain the relationship between educational credentials and labour market outcomes. Earlier research has shown a positive association between educational attainment and income (Card, 1999); however, it is still not clear why this correlation occurs (Bills, 2003). Three seemingly competing theories which attempt to shed light on this relationship were discussed.

The first theory introduced is the human capital theory which was formulated in the early 1960s. According to this school of thought, each additional year of schooling directly increases worker's productivity which explains why more educated individuals have higher lifetime earnings on average. Young people have to make an important decision whether to enter HE or not. Investment in HE is not only expensive and time-consuming but also risky compared to other forms of investment because human capital cannot be separated from the person.

In order to make an informed decision, prospective students have to compare the perceived costs against the perceived benefits (Tomlinson, 2008). Within the human capital framework, individuals behave rationally and seek to maximise their utility. Thus they will continue their investment in education until the difference between the marginal cost and marginal return to education is zero (Harmon, 2003). The cost of obtaining a degree includes both direct costs (e.g. tuition fees and books) and opportunity costs (i.e. forgone earnings). The direct costs of HE have increased significantly in England since tuition fees were introduced in 1998. By contrast, the direct costs remain relatively low in the Czech Republic as there is no tuition fee charged at public HEIs. Nevertheless, Czech students face higher opportunity costs because they traditionally leave HE with a Master degree and therefore spend more years in HE.

While potential students can make relatively accurate estimates of the cost of HE, the assessment of benefits is more problematic. While the UK government promotes HE by highlighting the average graduate premium, there is no guaranteed premium for an individual graduate. Moreover, the premium is to some extent influenced by factors that potential students cannot take into account when applying for a university place (e.g. final grades or placement work experience). Therefore it is difficult to calculate the economic benefits of HE investment at the individual level. Consequently, it is very unlikely that young people do attempt the cost-benefit analysis before entering HE (Manski, 1993; Ehrenberg and Smith, 2011; Brynin, 2012; Esson and Ertl, 2015).

From the early 1970s, the relationship between education and productivity has been questioned and sorting models were developed as an alternative to human capital theory. This school of thought maintain that graduates have higher earnings on average because they are inherently more productive (Chevalier et al., 2004). High ability students acquire high levels of education to signal their abilities and employers use educational credentials to filter unsuitable applicants (Gemmell, 1997; Brown and Hesketh, 2004). While human capital theory assumes linear returns to education, the sorting hypothesis posits that certain levels of schooling are associated with higher returns. This phenomenon is described as the sheepskin effect. A number of studies in the US and Canada have confirmed the existence of the sheepskin effect (e.g. Jaeger and Page, 1996; Ferrer and Riddell, 2002; Trostel and Walker, 2004). Research in the UK and the Czech Republic is scarce and no study on the sheepskin effect has been carried out using data on expected rather than realised earnings. Therefore, in this study, I will examine whether the sheepskin effect is evident in final year students' wage expectations.

Although human capital theory and sorting models are often seen as rivals, some authors (e.g. Dolton, 1985; Weiss, 1995; Bills, 2003) believe that they complement each other. In both models, firms seek to maximise their profits and workers are utility-maximising. Both concepts assume that those with higher levels of schooling are inherently more productive which explains their higher lifetime earnings. However, it is very difficult to test these two theories empirically because a worker's productivity cannot be readily observed. Some attempts have been made to separate these theories (e.g. P-test and twins experiment) but the findings are not conclusive.

The third theory discussed is the social closure theory (credentialism) which uses class conflict to explain the relationship between education and socio-economic status. Education indicates membership of a status group; the dominant status group uses educational credentials to maintain their position and consequently, social inequality is reproduced

between generations (Bourdieu and Passeron, 1990). According to this concept, education does not increase an individual's productivity; its main role is to teach value and manners (Collins, 1971). Unlike sorting models where more educated workers are naturally more productive, credentialism does not assume a positive link between education and productivity. Instead, labour market success is mainly determined by a person's social, economic and cultural capital (Galindo-Rueda and Vignoles, 2002; Brennan and Shaw, 2003; McNamee and Miller, 2009).

The material reviewed in this chapter illustrates that all three concepts may offer some useful insights; however, each model has its shortcomings that have to be considered. This is captured by Bills' concluding statement (2003: 458):

"While adherents to any of these theories can find some support in the results, a more even-handed appraisal must conclude that none of the theories is unambiguously supported, and all, in fact, face some disconfirming evidence".

The second part of the literature review was devoted to factors that might have an influence on students' earnings expectations. While the financial returns to schooling have been well-documented in most countries, research on students' earnings expectations is still somewhat limited and cross-country comparative studies are uncommon. Moreover, it is difficult to compare findings due to different methodologies used (Wolter and Zbinden, 2002).

Adnett and Slack (2007: 26) have identified a number of aspects which influence the graduate premium including "entry qualification, social class, degree class, subject area, [and] higher education institution". Therefore, four groups of variables which may have an impact on students' earnings expectations were identified. The first group was associated with students' personal characteristics. Gender has been found to be a strong predictor of wages in the labour market (e.g. Smetherham, 2006; Wilton, 2007; Ramsey, 2008; Wilton, 2011; Purcell et al., 2012). There is an evidence of a gender pay gap in students' earnings expectations (Botelho and Pinto, 2004; Brunello et al., 2004; Webbink and Hartog, 2004; Filippin and Ichino, 2005; Speed, 2007; Carasso et al., 2012; Menon et al., 2012). In general, female students tend to have lower expectations and they are less likely to self-enhance their future earnings.

Another variable of interest was age. Previous research has revealed that final year students have more realistic expectations (e.g. Betts, 1996; Botelho and Pinto, 2004; Brunello et al., 2004; Jerrim, 2008; Jerrim, 2011; Alonso-Borrego and Romero-Medina, 2014). It has been reported that the number of HE students from ethnic minorities has been steadily increasing in the UK although their distribution across institutions is uneven (Bhattacharyya et al., 2003; Shepherd, 2009). According to Speed (2007) and Jerrim's (2008) findings, students from

ethnic minorities expect to earn more in their first career job compared to their white counterparts despite the existence of ethnic pay gap in the UK (Brynin and Güveli, 2012).

In line with social closure theory, students' socio-economic status can be viewed as a determinant of educational and career success. Young people from wealthier families are more likely to attend a top-ranking university and their cultural capital is often rewarded at the higher educational levels (de Graaf et al., 2000; Galindo-Rueda and Vignoles, 2002; Shepherd, 2009). They are also more likely to have connections with potential future employers and gain experience through extracurricular activities (de Graaf et al., 2000; Brennan and Shaw, 2003). In other words, middle-class status can also convey an advantage in the graduate labour market. By contrast, working-class graduates are less likely to secure a graduate level of employment and they earn less on average despite being similarly qualified (Purcell et al., 2002; Brennan and Shaw, 2003). Family income has been linked to students' earnings expectations in previous research— students from higher income families expect higher earnings after graduation (e.g. Webbink and Hartog, 2004; Delaney et al., 2011; Menon et al., 2012).

The second group of factors is linked to students' education. First of all, all three theories discussed in this chapter posit that those with higher levels of schooling have higher average earnings. There is also a positive link between students' academic achievement prior to university and their degree performance (e.g. Smith and Naylor, 2001; Naylor and Smith, 2004; HEFCE, 2014a). Moreover, the number of UCAS points, which is used during the application process to UK universities, is used by many graduate employers. Speed (2007) revealed a positive correlation between UCAS points and students' salary expectations. Not only the number of UCAS points but also the degree class is taken into account in the UK labour market. Having a "good" degree (i.e. at least upper-second class) is associated with higher returns to university education (Walker and Zhu, 2011; Ramsey, 2008).

Furthermore, university prestige can possibly help to explain the differences in graduates' earnings profiles. It has been acknowledged that graduates from the so-called Russell Group universities earn between 6% to 17% more on average compared to graduates from less prestigious institutions (Brennan and Shah, 2003; Chevalier and Conlon, 2003; Wilton, 2007; Norton, 2008; Ramsey, 2008; Abreu et al., 2015; Britton et al., 2016).

While most Czech students continue their studies towards a Master degree, the majority of students in the UK leave HE with a Bachelor degree. Several studies have confirmed the existence of a postgraduate premium in the UK (e.g. Conlon and Patrignani, 2011; Walker and Zhu, 2011; Lindley and Machin, 2013). Furthermore, Menon et al. (2012) found a 9% postgraduate premium in students' earnings expectations in Cyprus.

The final variable associated with students' education was study abroad. Cultural awareness and knowledge of foreign languages are viewed as an advantage in the labour market. International experience has been found to have a positive effect on graduates' salaries (e.g. HEFCE, 2009; IES Abroad, 2012).

The third group of variables refers to students' work experience. Students who engage in casual part-time work can improve their communication and organisational skills. Since these soft credentials are valued by employers, students who work during their studies might expect higher earnings after graduation. On the other hand, students with such experience are likely to have a better knowledge of the labour market and consequently, their expectations might be lower/more accurate. Furthermore, in the UK some students undertake a so-called sandwich course which incorporates 12 months supervised work placement. The effect of work placements on graduates' labour market outcomes is twofold. Firstly, undertaking supervised work placement increases the chances of obtaining graduate employment; and secondly, such experience has a positive effect on starting salaries (HEFCE, 2009; Papadatou, 2010a; High Fliers Research 2013).

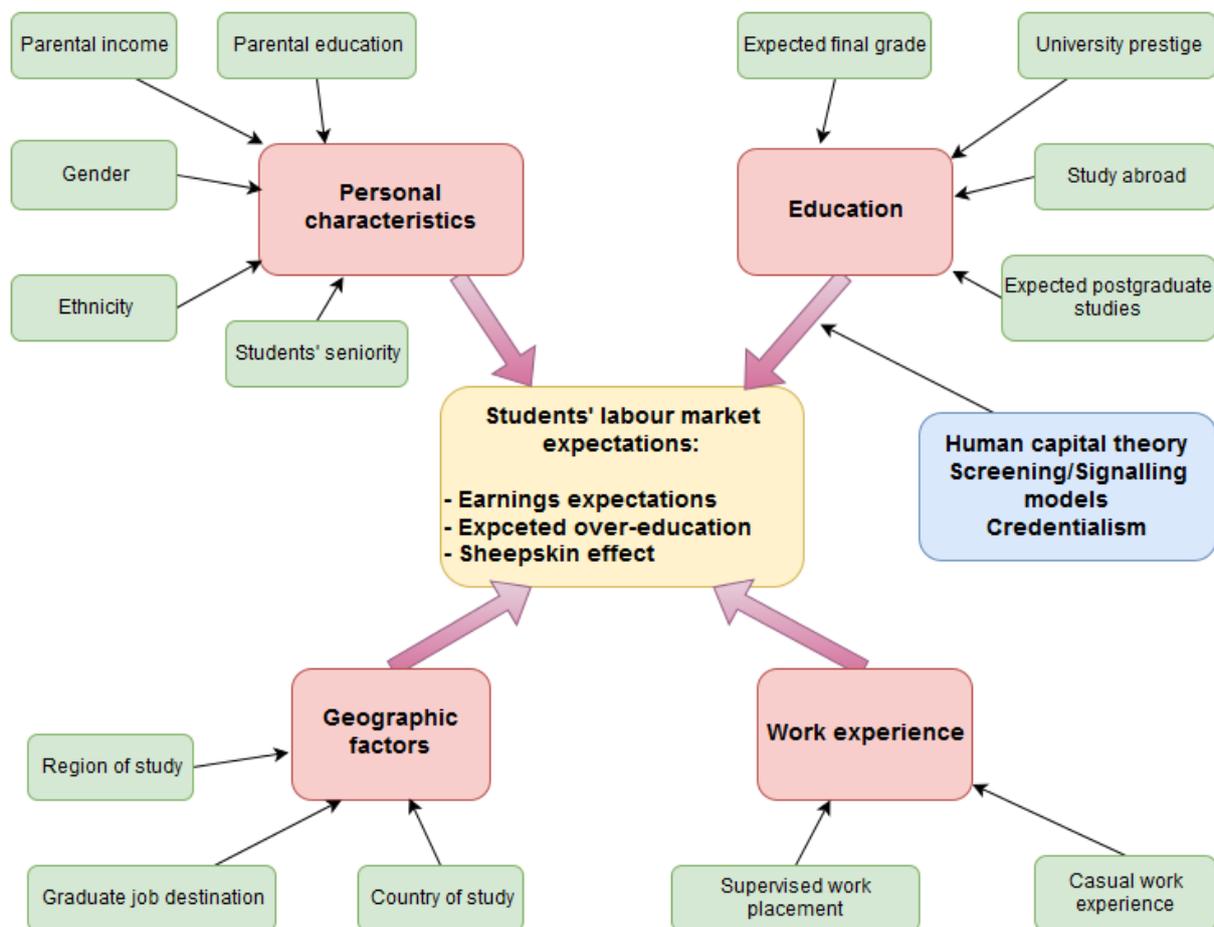
The final group of variables acknowledged the regional variances in earnings and also discussed the impact of the economic situation at the point of graduation on individual's career prospects. As the graduate labour market is not evenly distributed across the country those who are willing to move may have higher salary expectations. In the UK students' willingness to relocate has been found to be correlated with ethnicity and social status (e.g. Furlong and Cartmel, 2005; Faggian et al., 2007; Greenbank and Hepworth, 2008). Students' earnings expectations have been found to reflect the economic situation in the country. The expected graduate salaries of both Czech and English students dropped during the recent recession and increased again once the economy returned to growth (ČeSU, 2012; High Fliers Research, 2014; Deloitte, 2015).

3.5 Research questions

The purpose of this section is to formulate research questions and provide a rationale for including these research questions in this study. A research model (Figure 3.2) was developed from the existing literature to outline the aspects that may influence students' labour market expectations. Research questions can be broadly divided into four groups (i.e. Groups A, B, C and D). Group A considers students' personal characteristics (including gender, seniority, ethnicity and students' socio-economic background which is determined by parents' level of education and income). Group B looks at the role of education in students'

expectations. Factors including expected final grade, university prestige, expected postgraduate studies, study abroad and expected overeducation will be investigated. There is also a question concerning the sheepskin effect in students' expectation. The final question in this group aims to explore students' perceptions of the role of education in the labour market. Group C is related to students' work experience and its potential effect on earnings expectations. Lastly, group D takes into account regional differences in earnings and compares earnings expectations between the countries.

Figure 3.2 Research model



3.5.1 Group A: Students' personal characteristics and labour market expectations

RQ1A: Is there a significant difference in earnings expectations for male and female students?

As noted earlier, there is an association between students' earnings expectations and gender (Smith and Powell, 1990; Blau and Ferber, 1991; Wolter and Zbinden, 2002; Botelho and Pinto, 2004; Brunello et al., 2004; Webbink and Hartog, 2004; Filippin and Ichino, 2005;

Speed, 2007; Carasso et al., 2012; Menon et al., 2012). Female students in different countries were found to have both lower and more accurate expectations. Thus, this study will analyse the effect of gender on earnings expectations in England and the Czech Republic.

RQ2A: Is there a significant difference in wage expectations for the first year and final year students?

It has been argued that students learn about their academic abilities during their studies. Final year students tend to have lower earnings expectations compared to their first year counterparts (Betts, 1996; Botelho and Pinto, 2004; Brunello et al., 2004; Jerrim, 2008; Alonso-Borrego and Romero-Medina, 2014); therefore an independent variable “students’ seniority” is included in this research.

RQ3A: Does students’ ethnicity have an impact on their earnings expectations?

Previous research has revealed that ethnic minority graduates have higher unemployment and lower salaries. However, little is known about the effect of students’ ethnicity on their earnings expectations (Speed, 2007; Jerrim, 2008). Thus, the impact of ethnicity on students’ expectations is analysed within the English sample.

RQ4A: Is there a link between parents’ income and students’ earnings expectations?

Parental income was found to have a positive effect on students’ expectations in various countries. The higher the parental income is, the higher the students’ earnings expectations are (Webbink and Hartog, 2004; Jerrim, 2008; Delaney et al., 2011; Menon et al., 2012). Thus, this variable was included to find out whether such a relationship exists in England and the Czech Republic.

RQ5A: Is there a link between parents’ education and students’ earnings expectations?

It has been documented that the chance of attending university is influenced by parents’ education. However, this variable has been mostly over-looked in previous studies on students’ expectations. Therefore, parental education was used in this study as a proxy for students’ socio-economic status.

3.5.2 Group B: The role of education in students’ labour market expectations

RQ1B: Do students’ earnings expectations increase with education?

All three theories that were presented in this chapter assume that earnings increase with education. Thus, earnings expectations will be compared at two different levels of education

(i.e. A-levels/Maturita and university degree) to find out whether this relationship is present in students' expectations.

RQ2B: Are earnings expectations of those who plan postgraduate studies different from those who want to start a career immediately after graduation?

The existence of a postgraduate premium was confirmed by previous studies (Conlon and Patrignani, 2011; Walker and Zhu, 2011; Lindley and Machin, 2013). Nonetheless, only one study on students' earnings expectations has included this variable (Menon et al., 2012). Therefore, this study will investigate whether students who plan postgraduate studies expect higher earnings.

RQ3B: Do university grades have an effect on earnings expectations among final year English students?

Students' academic achievement plays an important role in the UK graduate labour market. Graduates with better grades have higher earnings (Ramsey, 2008; Walker and Zhu, 2011; Feng and Graetz, 2013); thus, the effect of expected final grade on students' labour market expectations will be investigated within the English context.

RQ4B: Is there a difference in earnings expectations between those students who spent part of their studies abroad and those who did not?

Study abroad has been found to have some impact on graduates' earnings and career progression; however, this variable was not included in previous studies on students' earnings expectations. This research will analyse the effect of study abroad on students' expectations.

RQ5B: How do students perceive the relationship between university prestige and labour market opportunities?

It has been argued that some employers prefer graduates from top-ranking universities (Young, 1999; Little, 2001; Brennan, 2008). Therefore, this study will explore how university prestige shapes students' labour market expectations.

RQ6B: Do students who expect to be overeducated after graduation have different earnings expectations from those who hope to be in a graduate job six months after graduation?

Overeducated workers have lower job satisfaction and earn less compared to properly-matched workers (Young, 1999; Dolton and Vignoles, 2000; Brennan, 2008; Green and Zhu,

2010). Therefore, this study will analyse the impact of expected overeducation on students' earnings expectations.

RQ7B: Is there any evidence of a sheepskin effect in final year students' expectations?

While the existence of a sheepskin effect has been confirmed by previous research, no study has looked for the evidence of a sheepskin effect in students' earnings expectations. Therefore students' earnings expectations after graduation will be compared to expectations under a scenario where students drop out of university in their final year.

RQ8B: How do students perceive the relationship between education and labour market outcomes?

Three theories (i.e. human capital theory, screening/signalling models and credentialism) that aim to explain the positive relationship between education and socio-economic status were discussed in this chapter. There have been only two studies that have attempted to explore students' perceptions of this relationship (Sanquirgo et al., 2004; Killeen et al., 1999). In this research each theory has been encapsulated into statements as follows:

- Human capital theory
 - Employers prefer graduates with “good degrees”⁶².
 - Skills and knowledge gained at university have a positive impact on graduates' job performance.
- Screening/signalling models
 - A degree is necessary to get a graduate job but it is not essential to perform the job.
 - Graduates have more opportunities in the labour market compared to people who have similar skills and knowledge but who don't hold a degree.
- Credentialism
 - Some employers prefer graduates from elite universities.
 - Graduates from lower socio-economic backgrounds are disadvantaged in the graduate labour market because of:
 - Their accent⁶³
 - Their financial constraints
 - Their lack of connections to potential employers.

62 As noted earlier, it is empirically difficult to separate the effect of human capital from screening. This statement refers to meritocracy in the labour market and therefore it could also be consistent with screening models.

63 This aspect is relevant only in England, in the Czech Republic there seems to be no connection between one's accent and social background.

Students' perceptions of the importance of each theory will then be examined.

3.5.3 Group C: The effect of work experience on students' earnings expectations

RQ1C: Is a positive link between salaries and work experience accumulation evident in students' expectations?

According to human capital theory, earnings grow with accumulated work experience. In this research earnings expectations will be compared at two points in time (immediately after graduation and after ten years in the labour market) to find out whether students expect their earnings to grow over time.

RQ2C: Is there a difference in earnings expectations between students who have a part-time job during their studies and those who do not work?

Students can develop and improve their transferable skills, which are valued by graduate employers, through casual work experience. Thus, this study will examine whether casual work experience has any influence on students' earnings expectations.

RQ3C: Are earnings expectations of final year English students who had undertaken a supervised work placement different from the rest of the cohort?

Numerous studies have examined the effect of a supervised work placement on students' academic performance and labour market outcomes (Gracia and Jenkins, 2003; Mandilaras, 2004; HEFCE, 2009; Papadatou, 2010a; High Fliers Research, 2013). However, this variable has not been explored in previous research on students' earnings expectations.

3.5.4 Group D: Regional and national variations in students' earnings expectations

RQ1D: Do earnings expectations vary among institutions within the same country?

The average earnings vary from region to region; therefore, the location of the university might explain some of the variability in students' earnings expectations. This study will compare earnings expectations of students within the same country to account for any regional differences.

RQ2D: Do students' earnings expectations vary according to the intended location of the graduate job?

As noted earlier, the graduate labour market is not evenly distributed across the country and graduate jobs tend to be concentrated in the capital (Ramsey, 2008; Ball, 2011). This study will analyse how graduate job destination affects students' labour market expectations.

RQ3D: Is there a difference in earnings expectations between Czech and English students?

Average earnings vary not only between regions but also between countries. In this research, earnings expectations of students in the Czech Republic and England will be compared.

In total, 19 research questions were developed from the existing literature on students' labour market expectations. In order to answer these research questions, unique data (both qualitative and quantitative) were collected in two countries. The following Chapter 4 discusses in detail the adopted research strategy and the methods of data collection used in this research.

CHAPTER 4: RESEARCH METHODOLOGY

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4.1 Introduction

Bassey (1999: 38) characterises research as “a systematic, critical and self-critical inquiry which aims to contribute to the advancement of knowledge and wisdom”. Following the same line, Mertens (2009: 2) defines research as “a process of systematic inquiry that is designed to collect, analyse, interpret, and use data”. The primary purpose of research is to contribute to human knowledge (Oliver, 1997).

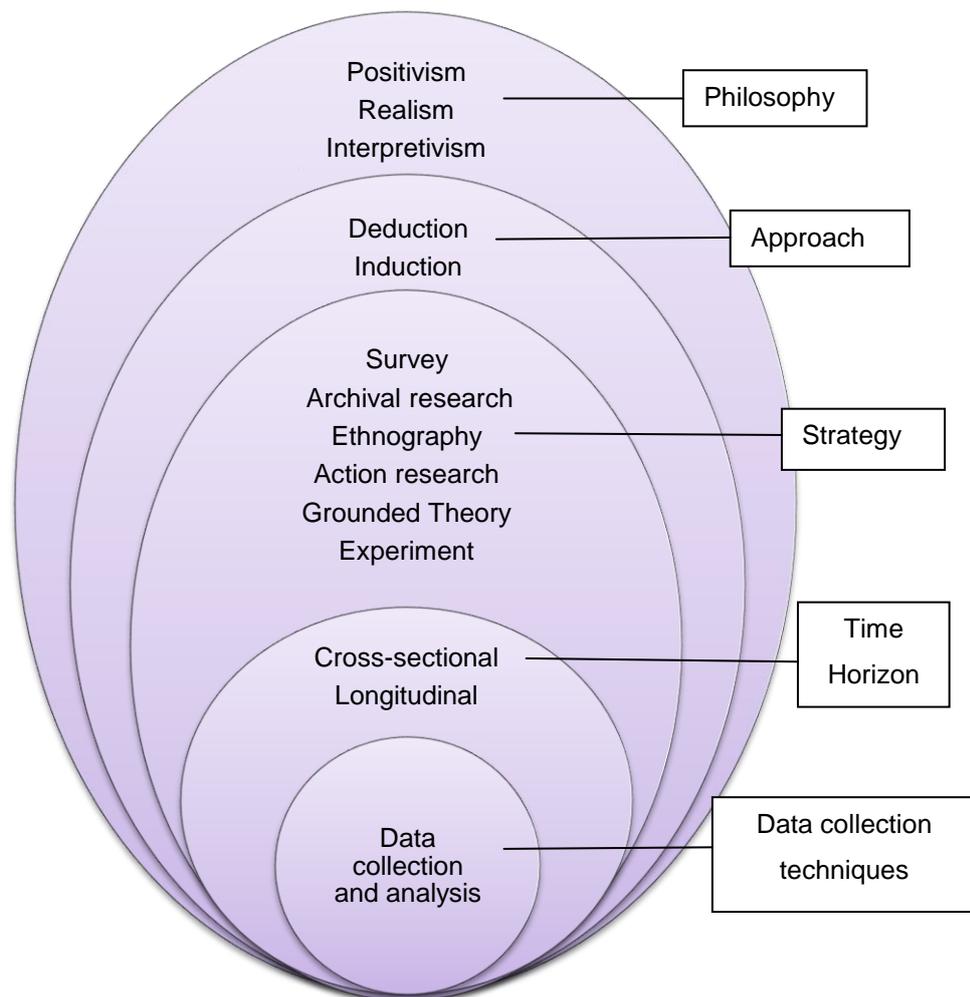
The aim of this study is to analyse earnings expectations of first year and final year Business students in England and the Czech Republic. While secondary data on actual earnings of graduates are abundant in both countries, data on expected earnings are not available. Therefore, primary data (both qualitative and quantitative) had to be collected from students in order to answer the research questions.

4.2 Research process

A research process has several stages that have been metaphorically depicted by Saunders et al. (2012). Their so-called research onion model is adapted in Figure 4.1. This chapter follows the research onion and peels away its layers. It begins with the outer layer – the research philosophy. The next part outlines the research approach, research strategy and time horizon that were applied in this study. Finally, the methods of data collection, the core of the research onion, are explained and evaluated.

While the research onion model is useful, it does not embrace all issues related to the research process. One part of this chapter is devoted to primary data quality – concepts of validity, reliability and triangulation are discussed. This is followed by considerations of ethical problems that could have arisen during this study. The chapter concludes with the research limitations and a brief outline of methods of data analysis that are further explained in Chapter 5.

Figure 4.1 Research onion model



Source: Saunders et al. (2012: 160)

4.2.1 Research philosophy

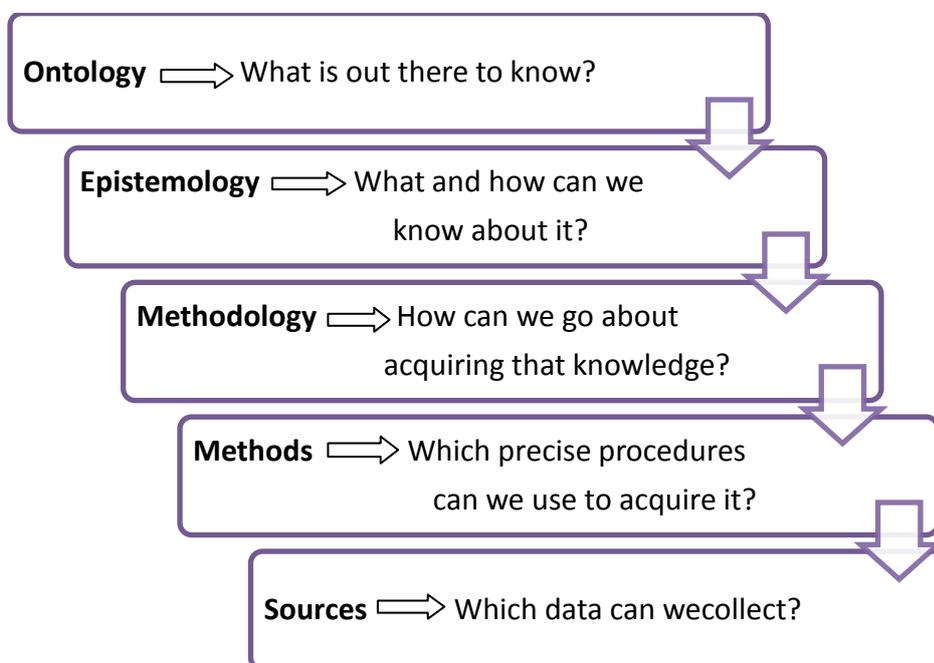
As Creswell (2013) remarks, researchers always bring certain beliefs and philosophical assumptions to their research. The philosophical stance of a researcher has implications for “what, how and why the research is carried out” (Carson et al., 2001: 1). Therefore, before

carrying out research, it is necessary to consider matters of ontology and epistemology because they can influence both the manner in which the research is designed and how findings are interpreted. Ontology is discussed first because, as we can see in Figure 4.2 below, “ontology logically precedes epistemology which logically precedes methodology” (Hay, 2002: 5). This is followed by the analysis of three main research paradigms, focusing on their ontological and epistemological assumptions.

4.2.1.1 Ontology

Ontology is concerned with the nature of reality. Lawson (1994: 257) defines ontology as an “enquiry into the nature of being, of what exists, including the nature of the objects of study”. According to Blaikie, (2000: 8), ontology refers to “claims and assumptions that are made about the nature of the nature of social reality, claims about what exists, what it looks like, what units make it up and how these units interact with each other”. The underlying question for ontology is whether “there is a ‘real’ world ‘out there’ that is independent of our knowledge of it” (Marsh and Furlong, 2002: 18) or whether reality is only “the product of one’s mind” (Burrell and Morgan, 1979: 1).

Figure 4.2 Key concepts in research



Adapted from Hay (2002) and Grix (2002)

Two contrasting ontological positions are objectivism and constructivism. Objectivism is based on the assumption that “social phenomena and their meanings have an existence that is independent of social actors”; constructivism, on the other hand, believes that “social phenomena and their meanings are continually being accomplished by social actors (Bryman, 2001: 16-18).

4.2.1.2 Epistemology

Epistemology is another core branch of philosophy. It is concerned with “the nature, validity and limits of enquiry” (Rosenau, 1991: 109). The fundamental questions are “how is it possible, if it is, for us to gain knowledge of the world” (Hughes and Sharrock, 1997: 5) and “how it can be communicated to human beings” (Cohen et al., 2007: 7). According to Marsh and Furlong (2002: 18), researchers’ epistemological positions “reflect their view of what we can know about the world and how can we know it”. The relationship between the knower and the known can be objective or subjective (Teddle and Tashakkori, 2009). Some researchers believe that it is possible to acquire objective knowledge which can be communicated to others. For others, objectivity can never be achieved because our observations are always influenced by the social constructions of reality.

4.2.1.3 Research paradigms

Social reality can be explored in numerous ways. Before any approach is chosen, it is essential to understand its philosophical underpinnings. According to Kuhn (1996: 175), a paradigm is “the entire constellation of beliefs, values, techniques, and so on, shared by the members of a given community”. Along the same lines, Guba and Lincoln (1994: 105) view a paradigm as “a basic system or worldview that guides the investigator, not only in choices of the method but in ontologically and epistemologically fundamental ways”. A research paradigm consists of “certain philosophical assumptions that guide and direct thinking and action” (Mertens, 2009: 7). Each paradigm is defined by its ontology, epistemology and methodology. The power of paradigms should not be underestimated because, as Covey (1989) suggests, they create the lens through which we see the world. There is a continuum of paradigms available to researchers; however, there is no definitive list of accepted paradigms. The main paradigms, which lie at the opposite ends of the continuum, are positivism and interpretivism. The next section focuses on underlying philosophical differences between these two paradigms. This is then followed by a discussion of critical realism, which was the paradigm guiding this study.

4.2.1.3.1 Positivism

This approach has developed from the empiricist tradition of the natural sciences. The underlying assumption is that “human action is not random but conforms to predictable patterns” (Hughes and Sharrock, 1997: 30). The French philosopher Auguste Comte was the first one to apply methods of natural science to investigate social science phenomena (Hughes and Sharrock, 1997). During the 20th century, positivism became the dominating philosophy of science. The positivist ontology maintains that there is only single, stable reality and the social world exists objectively and externally. In other words, social reality exists independently of our perceptions of it (Curtis and Curtis, 2011).

Positivist ontology posits that there is “an objective reality ‘out there’ waiting to be discovered” (Denscombe, 2002: 15). Social structures are real and external forces that determine human values and behaviour. There is no escape from social forces – people are not able to change or influence them. On that account, positivists strive for “casual explanations and fundamental laws that explain regularities in human social behaviour” (Easterby-Smith et al., 1991: 23). Put it differently, their goal is to establish “general laws to describe constant relationships between variables” (Mertens, 2009: 11). Carson et al. (2001: 5) point out that there is “a clear distinction between facts and value judgements”. Positivists have to be independent of the observed phenomenon and value free in their work to achieve unbiased truth-claims about social reality.

According to positivist epistemology, it is possible to study and explain the social world in the same way as the natural world. There is a belief that a value-free method to study the social world exists and researchers are able to form objective understandings of social reality (Mertens, 2009). This school of thought affirms that “scientific knowledge is utterly objective and that only scientific knowledge is valid, certain and accurate” (Crotty, 1998: 29). Conforming to the principle of phenomenalism, only knowledge validated through our senses can genuinely be warranted as knowledge (Hughes and Sharrock, 1997; Bryman, 2012). Anything that is not directly observable or measurable (such as people’s thoughts) has no place in scientific research (Robson, 2011).

Positivists are interested in the causes of behaviour rather than their effects. Existing theories are used to generate hypotheses. In general, quantitative methods are preferred because the research study can be replicated or repeated. It is crucial that research techniques do not interfere with or influence the observed reality (Denscombe, 2002). A researcher’s role is to collect unbiased numerical data or observations, perform statistical analysis and present the most efficient solution to the identified problem.

Positivism has attracted a number of criticisms. First of all, our knowledge of the world is never fully certain but only probable; there is no guarantee that general laws (based on past and present evidence) will hold in the future (Hughes and Sharrock, 1997). This implies that a hypothesis cannot be confirmed and remains provisional until it is disproved (Popper, 2002). In other words, if we fail to falsify a hypothesis it does not mean that we prove that hypothesis (Sekaran and Bougie, 2010).

The idea of fully objective and value-free research has been dismissed by Johnson and Onwuegbuzie (2004) and Saunders et al. (2012). They assert that researchers have to make subjective decisions during the research process (e.g. deciding what to investigate, formulating research objectives, choosing the specific tests, selecting p-values). Researchers then make subjective conclusions and interpretations on the basis of the collected data. Our social, political and economic interests also determine what is accepted as knowledge (Hughes and Sharrock, 1997).

Moreover, as Cupchik (2001) highlights, observers in the physical sciences acknowledge Heisenberg's principle which postulates that a phenomenon is transformed in the act of measurement. This implies that researchers are never really independent of the phenomenon under investigation. Within the social sciences context, researchers have to take into account participants' self-awareness because people tend to alter their behaviour when they know they are being studied. Denscombe (2002) concludes that the model of scientific research does not reflect practices as they occur in 'real-world' research; however, pure objectivity should be treated as an ideal to which researchers aspire.

4.2.1.3.2 Interpretivism (social constructivism)

During the late 19th century Friedrich Nietzsche was the first to assert that there are no facts, only interpretations of facts (cited in Kaufmann, 1966). Nevertheless, it was not until the 1970s and 1980s that the dominant positivist thinking increasingly came under attack by interpretivist scholars. Gage (1989) describes this period as an era of 'paradigm wars'. Interpretivism can be portrayed as the opposite pole of positivism. Unlike positivism, interpretivism accepts human thoughts, emotions and beliefs as a source of valid knowledge. In other words, it acknowledges the fundamental difference between human beings and the objects of natural sciences (Bryman, 2001). In contrast with positivism, interpretivism regards social reality as something constructed in the minds of people who believe in it, relate to it and interpret it (Denscombe, 2002). Its relativist ontology posits that there are multiple subjective realities which are dynamic. Social phenomena have no

external reality; instead, social reality is constructed and maintained through the ongoing interaction between human actors (Saunders et al., 2012).

As Hughes and Sharrock (1997: 133) put it, “there is...no neutral point from which to stand back and perceive social reality objectively”. Thus interpretivism adopts subjectivist epistemology. The assumption is that social phenomena are intrinsically meaningful and meanings depend on the context which is changing on a daily basis. According to Cupchik (2001), truth is relative to individuals and communities. For this reason, meanings cannot be measured or counted. This implies that it is not possible to explain and predict human behaviour in the form of universal laws and theories (Oliver, 1997). Moreover, it is not possible to separate reality from our knowledge of it (Teddlie and Tashakkori, 2009). The research process is inevitably influenced by our own implicit values and beliefs. For this reason, absolute objectivity and neutrality are not attainable.

While positivists use collected data to test existing theories, interpretivists gather in-depth data which help them to generate new theories or modify existing ones. The constructivist paradigm uses predominantly methods such as interviews to investigate smaller, purposive (non-random) samples. This leads to one of the main criticisms of interpretivism. Due to the small number of cases, findings usually cannot be generalised and applied to all people, at all times, in all situations.

Furthermore, given that a researcher’s own values and expectations have an impact on research and its results, there is a possibility that another researcher would see things differently and produce different results and explanations (Denscombe, 2002). Interpretivist research allows for an emergent research design - research questions are not strictly formulated before the research begins; rather, they emerge as the study progresses (Mertens, 2009). Correspondingly the research sample is not specified in advance. Denscombe (2002) asserts that these aspects of interpretive research are sometimes abused by people doing sloppy research to justify a lack of rigour.

4.2.1.3.3 Critical realism

Although positivist and interpretivist perspectives seem to be irreconcilable, an alternative approach which combines aspects from both positivist and interpretivist paradigms was launched in the 1980s. The popularity of critical realism has grown subsequently and according to Curtis and Curtis (2011: 13), it is “the mainstream position within the social sciences today”. Realism adheres to the view that there is only one external social reality; however, individuals view this reality from different directions and perspectives which are equally valid (Carson et al., 2001: 9). In other words, critical realism adopts realist ontology

and an interpretivist epistemology. In common with positivism, critical realism holds that social systems consist of structures that exist independently of our perceptions. These structures pre-exist individual actions but, at the same time, they are products of those actions (Hughes and Sharrock, 1997). As Rawls (1971: 102) further explains, social systems are created by powerful groups; it is not “an unchangeable order beyond human control but a pattern of human action”. Nevertheless, it is difficult to apprehend social phenomena because they are only discernible through their effects (Bryman, 2012).

Concerning its epistemology, critical realism accepts that “our knowledge of the world is fallible and theory-laden” (Sayer, 1992: 5). Given that society continuously evolves due to human actions, general laws are unattainable and knowledge has to be regarded as tentative rather than absolute. The provisional nature of knowledge means that existing theory “works for the time being, and evidence might be accumulating that supports it, but it could be proved wrong at some point in the future” (Denscombe, 2002: 200). Theories are then refined or abandoned in the light of new evidence (Robson, 2011). We cannot measure meanings or count them; instead, we have to understand them which implies that there is always an interpretivist element in social research (Sayer, 2000)

Critical realism is compatible with a relatively wide range of research methods. Social realists often use a mixed methods approach which has emerged as an alternative to the dichotomy of qualitative and quantitative traditions (Sayer, 2000; Denscombe, 2002; Teddlie and Tashakkori, 2009). Mixed methods research, which combines qualitative and quantitative methods, can offer “a better understanding of research problems than either approach alone” (Creswell and Plano Clark, 2007: 5) and often provides a “more workable solution” (Johnson and Onwuegbuzie, 2004: 17).

The use of mixed methods has been rejected by both quantitative and qualitative writers who argue that paradigms have discrete and impermeable boundaries which have to be respected and preserved (Creswell, 2011). This has been labelled as the purist stance (Rossman and Wilson, 1985) or the incompatibility thesis (Howe, 1988). For instance, Greene (2007: 70) believes that different philosophical positions have no place in one piece of research because the ontological assumptions of positivism and interpretivism are “contradictory and thereby incommensurable”. Similarly, Guba (1990: 81) holds the purist position by claiming that “an accommodation between paradigms is impossible”. Proponents of the purist view believe that research paradigms are associated with specific research methods. This means that it is not possible to mix methods because each method is intrinsically linked to a specific paradigm. Thus in a single study researchers can only combine methods within a given paradigm.

Nevertheless, this purist stance has been contested by methodological pragmatists (e.g. Creswell, 2003; Johnson and Onwuegbuzie, 2004; Morgan, 2007, Teddlie and Tashakkori, 2009; Saunders et al., 2012) who advocate that research should be problem-driven and different research methods and strategies should be mixed in order to achieve “the most robust and valuable findings that are possible under the circumstances” (Denscombe, 2002: 23). The key to this pragmatic approach is choosing the combination of methods that work best for a particular research question (Johnson and Onwuegbuzie, 2004)

The use of mixed methods has been recommended by many pragmatically inclined academics. For example, Maxwell and Mittapalli (2010: 146) assert that “methods can be combined on the basis of their practical utility and that paradigmatic conflicts can be ignored”. Furthermore, Sayer (2000: 19) suggests that the choice of research methods should be based on “the nature of the object of study and what one wants to learn about it”. This view is also supported by Creswell (2013: 28) who claims that researchers are “free to choose the methods, techniques, and procedures of research that best meet their needs and purposes”. In a similar vein, Brewer and Hunter (2006: 55) suggest that researchers should not be “wedded to a particular theoretical style”; instead they should “combine methods that would encourage or even require integration of different theoretical perspectives to interpret the data”.

According to Johnson and Onwuegbuzie (2004: 15), ontological and epistemological pluralism is desirable in today’s research world which is becoming “increasingly interdisciplinary, complex, and dynamic”. Finally, as Maxcy (2003: 79) concludes, pragmatism “seems to have emerged as both a method of inquiry and a device for the settling of battles between research purists and more practical-minded scientists”.

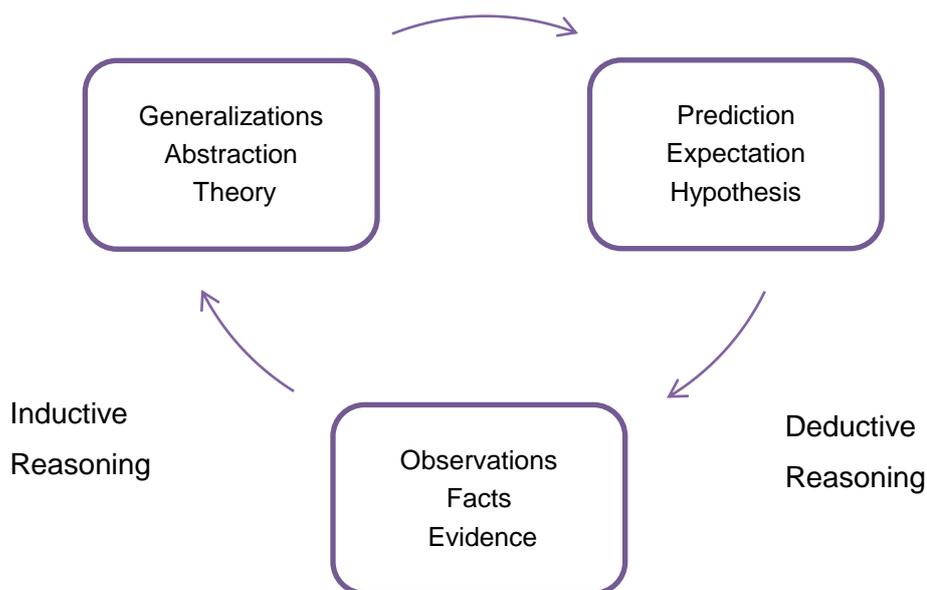
For this research, a pragmatic approach was adopted. A questionnaire was used to collect data on earnings’ expectations and students’ personal characteristics. The data collected through this method were used for hypothesis testing. Nevertheless, some of the research questions in this study could not be answered by the use of quantitative data only (e.g. students’ perceptions of the impact of university prestige on labour market outcomes). For this reason, I decided to conduct focus groups with students to explore the problem of students’ expectations in greater depth. Moreover, focus group discussions supplemented some of the survey findings (e.g. discussing possible reasons for lower earnings expectations of female students).

4.2.2 Research approach

This section sheds light on the relationship between theory and research. The goal of the inductive approach is to “illuminate the general through the particular (Ernest, 1994: 26). Inductive analysis involves searching for patterns, themes and regularities in one’s data (Teddlie and Tashakkori, 2009; Saunders et al., 2012). With an inductive approach, theory emerges from gathered data – theory is the outcome of research (Bryman, 2012). Nevertheless, Popper (2002) argues that induction is not suitable for scientific research because no amount of evidence can guarantee that contrary evidence will not be found in the future. Hence he considers deductive reasoning to be more appropriate for research.

The deductive approach starts with a well-developed theory from which a researcher deduces hypotheses which are then subjected to rigorous tests (Saunders et al., 2012). It is sometimes called a top-down approach because the researcher works from the more general to the more specific (Teddlie and Tashakkori, 2009). However, Bryman (2012: 25) points out that in practice a deductive approach rarely follows “the sequence outlined in its pure form”. Stated differently, it is not possible to operate exclusively in either an inductive or deductive model (Morgan, 2007). Instead, researchers move back and forth between these two methods of reasoning. In a similar vein, Sekaran and Bougie (2010: 28) affirm that “both theory generation (induction) and theory testing (deduction) are essential parts of the research process”. The research process is delineated in Figure 4.3.

Figure 4.3 Inductive-deductive research cycle



Adapted from Teddlie and Tashakkori (2009: 27)

4.2.3 Nature of research

There are three possible purposes of research that are commonly put forward – “to explore, to describe and/or to explain” (Robson, 2011: 39). Descriptive studies aim to portray “an accurate profile of persons, events or situations” (Saunders et al., 2012: 171). An exploratory design is conducted with the goal of generating information about “an unknown aspect of a phenomenon” (Teddlie and Tashakkori, 2009: 25). This type of research is “flexible and adaptable to change” (Saunders et al., 2012: 171). Explanatory research is concerned with developing or testing a theory (Robson, 2011).

The nature of this study is mainly explanatory. The focus is on students’ earnings expectations and their variation. Previous research has identified a number of personal characteristics that might influence expectations. In Chapter 5, I examine whether these independent variables can be used to predict and explain variations in students’ expectations. There is also a descriptive element – the first part of the following chapter offers a detailed descriptive analysis of the student sample. To some extent, this research can also be treated as exploratory. For instance, as discussed in the literature review, the sheepskin effect in students’ expectations has never been explored before.

4.2.4 Research strategy

In order to answer research questions, a researcher has to adopt a suitable research strategy. There are numerous strategies available, including experiment, survey, archival research, case study, ethnography, action research and grounded theory (Saunders et al., 2012). In the next section, I briefly introduce experiment, survey and case study as these strategies are commonly used in business and social research.

4.2.4.1 Experiment

When conducting an experiment, researchers have to randomly divide experimental subjects into two groups: a treatment group and a control group. This is followed by pre-testing both groups during which the dependent variable is measured (Quinlan, 2011). The next step requires the manipulation of the independent variable to find out whether it has any effect on the dependent variable. Consequently, both groups are tested again to detect any change in the dependent variable. Experiments can be either carried out in a laboratory or they can occur in real-life settings (i.e. field experiment). The experiment is often viewed as a “gold standard” (Saunders et al., 2012); however, a true experimental design is rarely suitable for social research because it may be difficult to isolate an independent variable and establish ‘cause and effect’ (Quinlan, 2011). In addition, many independent variables (e.g. gender,

age or ethnicity) cannot be modified (Bryman, 2012) or their manipulation would not be ethical (Denscombe, 2002).

4.2.4.2 Survey

In contrast with experiment, survey design does not deliberately manipulate or change phenomena studied (Robson, 2011). According to Teddlie and Tashakkori (2009), a survey is a systematic method for data collection which aims to predict population attributes or behaviours. Curtis and Curtis (2011) describe survey research as a variable-centric approach with relatively few variables (questions) and many cases (respondents). This method is particularly suitable for large-scale research projects with geographically spread populations (Quinlan, 2011). On the other hand, data obtained by the survey strategy are less wide-ranging as the number of questions is limited and open-ended questions are rarely used (Saunders et al., 2012).

4.2.4.3 Case Study

The case study approach has a long history across disciplines (Creswell, 2013). Quinlan (2011: 182) describes case a study as an “in-depth study of a bounded entity”. Yin (2003: 13) defines a case study as an “empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident”. This design is particularly useful in exploratory research where the researcher intends to gain a rich understanding of the phenomenon (Saunders et al., 2012). On the other hand, Blaikie (2009) has identified two frequent criticisms of case study research. Firstly, it is difficult to replicate case study research because the researcher’s knowledge and expertise have an influence on the results. Secondly, the results from a single case (or a small number of cases) cannot be generalised to the wider population.

4.2.5 Timing of data collection

Cross-sectional studies are confined to one point in time. This type of research is particularly useful for describing demographic characteristics, individual values, beliefs and behaviour that exist in a group at a specific point in time (Blaikie, 2009). Researchers employing a cross-sectional design collect data more or less simultaneously (Bryman, 2012). Therefore, cross-sectional studies can only identify possible relationships between variables. They are not appropriate for establishing any cause-and-effect relationship that may exist.

In longitudinal studies, data are collected “in at least two waves on the same variables on the same people” (Bryman, 2012). They can be divided according to their design into panel

studies and cohort analysis. Panel studies involve the same individuals who are followed over an extended period of time. Data obtained from panel studies illustrate both net change and gross change in the dependent variable. However, panel studies tend to be expensive, time-consuming and suffer from attrition. Cohort analysis can be considered as a specific variation of the panel study. A cohort characterised as an “aggregate of individuals who experienced the same event within the same time interval” (Ryder, 1965: 845). A cohort study usually involves different people but from the same cohort (e.g. people born in the same year). While useful for illuminating social change and enhancing the understanding of causal inference, longitudinal studies are relatively rare in social research due to the time and cost involved (Bryman, 2012).

This research uses mainly a repeated cross-sectional survey in order to detect patterns of change in students’ earnings expectations over time. The survey was repeated on an annual basis and the same questionnaire was used with a new independent sample of students on each occasion. The most serious limitation of trend analysis is that it can only reveal the net changes in opinions or behaviours. In other words, this type of study is able to track patterns of aggregate change but cannot explain how and why changes occurred to the same individual over time.

4.2.6 Methods of data collection

There are many techniques that can be used to gather data. Commonly used research methods include questionnaires, interviews, focus groups and observations (Quinlan, 2011). When choosing an appropriate data collection instrument one has to consider financial and time restrictions. A data collection method also has to be suitable for answering research questions and achieving the research objective. As was noted earlier, within the realist paradigm it is common to combine two or more different research methods. This study used questionnaire, focus groups and interview to achieve methodological triangulation. The following section discusses the strengths and weaknesses of these methods, along with the sampling strategy that was used to collect the data.

4.2.6.1 Questionnaire

Sekaran and Bougie (2010: 197) define a questionnaire as “a preformulated set of questions to which respondents record their answers”. Saunders et al. (2012: 417) note that a questionnaire is one of the “most widely used data collection methods within the survey strategy”. As all respondents answer the same set of questions, this method can provide highly standardised quantitative data from a large sample covering a wide geographical area. Another advantage of a questionnaire is the possibility of providing anonymity to the

respondents. However, researchers usually have only one opportunity to collect data and in the case of an anonymous questionnaire, it is not possible to go back to the particular respondent (Saunders et al., 2012). Therefore, when preparing a questionnaire, one has to make sure that individual questions are designed carefully.

4.2.6.1.1 Question formats and types of data

In general, questions can be divided into two groups – open-ended questions, which allow respondents to answer in their own words and closed-choice questions with a set of options for respondents to choose from (Krosnick and Presser, 2010; de Vaus, 2013). In this research, both questionnaires used closed-choice questions where a respondent makes a choice among a set of alternatives given by the researcher (Sekaran and Bougie, 2010). The main advantage of closed-choice questions is that they are quick to answer and easier to code. Nevertheless, a sufficient range of responses from which to choose must be provided. When designing a questionnaire for final year students, I made sure that all questions offered an exhaustive range of likely responses and where applicable an answer option called ‘other (please specify)’ was included.

There is no consensus among researchers about whether “non-committal” responses (such as “don’t know”, “not sure” or “neither for nor against”) should be permitted (Saunders et al., 2012; de Vaus, 2013). Those in favour argue that forcing people to express their opinion or indicate the direction of their opinion may result in unreliable data. On the other hand, Krosnick and Presser (2010) believe that offering a midpoint may encourage some respondents to select these alternatives out of laziness. In this study, a questionnaire that was distributed amongst final year students contained a set of rating questions. An even number of points was used to force students to “express their feeling towards the statement” (Saunders et al., 2012:436).

Quantitative data are typically divided according to the level of measurement. This division is based on their usefulness for statistical analysis. There are four different levels of measurement to choose from: nominal, ordinal, interval and ratio. Nominal data refer to categorically discrete data (e.g. gender) which can be counted. It is not possible to rank, order or score nominal data (Curtis and Curtis, 2011). With ordinal data (e.g. level of education) the values (categories) assigned to variables can be ranked but the distances between values are not equal and therefore do not have any meaning. Interval level data are numerical scales which have equal intervals between values. More sophisticated statistical techniques can be used with this type of data. Finally, ratio data (e.g. earnings expectations) have a meaningful zero point from which the equal intervals between values originate. While

it is permissible to transform data from a higher level of measurement to a lower level, the reverse is not possible (Blaikie, 2009).

4.2.6.1.2 Pilot testing

Before starting the actual data collection it is desirable to pre-test a questionnaire's quality to evaluate individual questions as well as the questionnaire as a whole (Saunders et al., 2012; de Vaus, 2013). This is usually done by administering the questionnaire to a small sample and observing the difficulties which they experience in completing it (Oliver, 1997).

There were two versions of the questionnaire – one for first year undergraduate students (Appendix 4.2 and Appendix 4.4) and the other for final year (undergraduate/Masters) students (Appendix 4.1 and 4.3). It should be noted again at this point that there is a difference between England and the Czech Republic regarding the typical leaving qualification of graduates. While a majority of English business graduates leave university with a Bachelor degree, their Czech counterparts are “forced” by labour market requirements to pursue a Master degree⁶⁴. For this reason, I decided to involve final year Master students rather than undergraduate students when collecting data in the Czech Republic. The former version of the questionnaire has been in use for several years and some changes were implemented before I started my research. I designed the questionnaire for final year students (both in Czech and English) and pre-tested it on a sample of PhD students.

4.2.6.2 Sampling strategy

Rather than working with the entire population, social science research is usually carried out on a sample drawn from that population (Quinlan, 2011). The need to use sampling is due to “restrictions on time, money and often access” (Saunders et al., 2012). The sample should share the same key characteristics as the population. Hence the aim of sampling is to “obtain a sample that properly mirrors the population it is designed to represent” (de Vaus, 2013: 67). There are two types of sampling available to a researcher - non-probability sampling and probability sampling. The key difference between these two forms is that in probability sampling all potential respondents have a known (non-zero) chance of being selected (Curtis and Curtis, 2011). With non-probability samples, the probability of being selected is not known and some potential participating cases have a known (non-zero) chance of being chosen. Thus non-probability samples are less desirable because they are not likely to be representative.

⁶⁴ Although some exceptions exist, for example in the Czech IT sector where Bachelors degree is usually sufficient in order to find a graduate job.

However, we have to bear in mind that even well-crafted probability sampling cannot guarantee a representative sample and eliminate sampling error (Bryman, 2012). In addition, probability sampling is time-consuming and expensive because it requires access to a sampling frame. The sampling frame is a list of all the members of a population we wish to study.

The population in this research was first year and final year English undergraduate students studying at Business Schools⁶⁵ in two universities in England and first year undergraduate and final year Master students studying at two Faculties of Economics in the Czech Republic⁶⁶. The institutions involved in this project were chosen on the basis of their accessibility (i.e. convenience sampling) – existing contacts were used to gain access.

All students who attended selected lectures⁶⁷ had a chance to answer the questionnaire⁶⁸. The response rate was very high; however, those who were absent from the lecture did not have another chance to complete the questionnaire. Students were not informed in advance about the data collection which implies that the survey did not influence lecture attendance. However, students' ability and motivation could have an impact on attendance. For instance, some students might not be able to attend lectures due to employment and family commitments. On the other hand, students who are highly motivated (both intrinsically and extrinsically) are more likely to attend lectures (Kottasz, 2005).

Since convenience sampling was used some members of the population had a zero chance of being selected. As non-probability sampling was used the findings can be considered indicative but not definitive. However, as de Vaus (2013) maintains, convenience samples can provide data of a high quality which can be useful for further research. Furthermore, Bryman (2012) believes that convenience sampling plays an important role in social research and the results of a study based on convenience sampling can be linked to existing findings in an area.

65 Including Finance and Accounting, Management, Marketing and Business studies. Law students were not surveyed in this research.

66 As noted in Chapter 2, a Master degree is considered to be the standard "leaving" qualification in the Czech Republic; for this reason, final year Master students were included in this study.

67 Given the time and money constraints large and well-attended lectures were identified to ensure a large amount of data could be collected at any one time.

68 Questionnaires were distributed in large lectures at the beginning of each academic year. Questionnaires were collected from all students irrespective of their nationalities but the data analysis only included English students and foreign nationals who had settled in the UK and wanted to stay in the UK after their studies.

4.2.6.3 *Sample size*

Sampling error is determined by the sample size – for any given population, the larger the sample the smaller the sampling error, *ceteris paribus*. The sampling error is usually expressed as a margin of error which is related to the confidence interval. There is a trade-off between precision and confidence level – we need to obtain a larger sample size if we want to increase one and maintain the other. Thus we have to decide how much precision and confidence is really needed in estimating population characteristics (Sekaran and Bougie, 2010). Larger samples are more likely to reflect the population accurately, regardless of “the size of the population from which it is drawn” (Bryman, 2012: 198). In general, the larger the sample, the more confident we are about generalising to a wider population (Oliver, 1997). Nonetheless, as Sekaran and Bougie (2010: 296) emphasise, a large sample size does not, in itself, “allow the findings to be generalised to the population”.

The decision about sample size is affected by several issues. Firstly, the researcher has to consider the time and costs involved. The second consideration is the response rate - when conducting a social survey we have to be prepared that some members of our sample will refuse to participate in the research. Sample size decision also has to take into account the size of the total population and the degree of diversity in that population for the key variables investigated (Saunders et al., 2012; de Vaus, 2013).

In this study, students in two English and two Czech universities were surveyed. In the following chapter, the two English institutions are labelled as UNIA and UNIB. The two universities in the Czech Republic are denoted as UNIC and UNID. Table 4.1 compares the sample size and the population size at UNIA for each academic year and level of study (i.e. first vs. final year)⁶⁹. As can be seen from Table 4.1, when first year students were considered, the sample represented more than 50% of the population in all academic years. Concerning final year students, the sample size varied more from year to year, on average, the sample represented nearly one third (31.5%) of the entire population of final year Business students at UNIA.

⁶⁹ Data on population sizes for the other institutions were not accessible.

Table 4.1 Population size vs. sample size (UNIA)

Academic year	First year students			Final year students		
	Population size	Sample size	%	Population size	Sample size	%
2011/2012	433	260	60.0%	266	96	36.1%
2012/2013	516	281	54.5%	247	67	27.1%
2013/2014	409	239	58.4%	282	54	19.1%
2014/2015	433	263	60.7%	334	139	41.6%
Total	1791	1043	58.2%	1129	356	31.5%

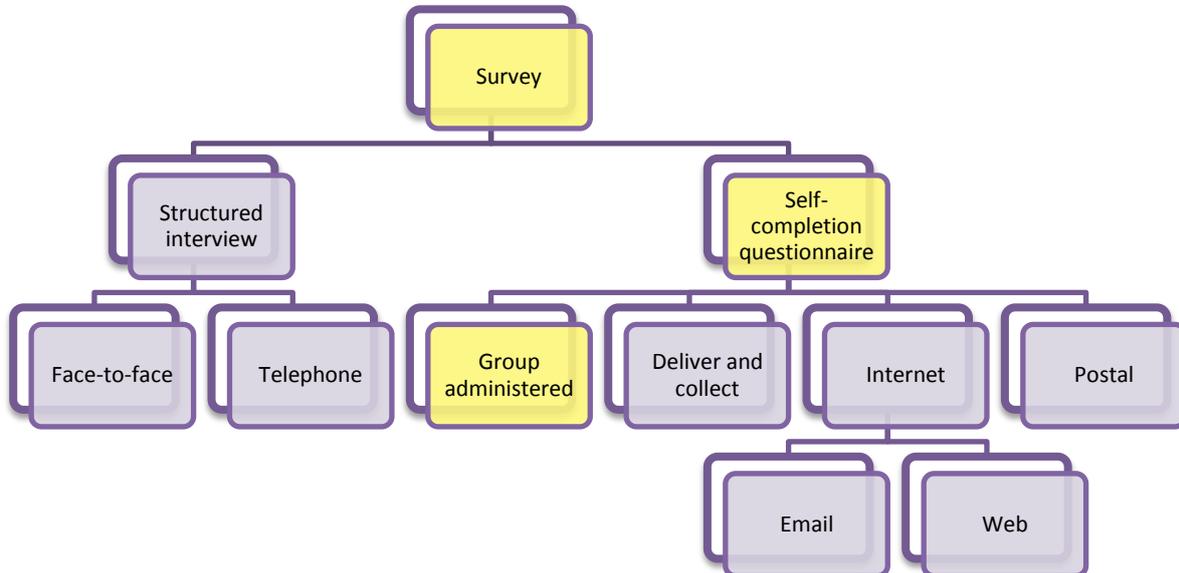
4.2.6.4 Data collection

There are several ways in which a survey questionnaire can be distributed (see Figure 4.4). A questionnaire can be administered by interviewers whose role is to ensure its completion (Curtis and Curtis, 2011). The main advantage is the presence of an interviewer who can answer respondent questions and clarify misunderstandings (de Vaus, 2013). While face-to-face questionnaires are efficient in terms of response rate, their administration tends to be expensive and time-consuming. By contrast, the internet and postal surveys are cheaper to administer but they yield the lowest average response rate. A self-administered questionnaire must be easy to follow and contain clear instructions so that respondents can complete them without any assistance (Blaikie, 2009). The internet and postal questionnaires are anonymous and therefore more suitable for sensitive or controversial questions.

In order to boost the response rate, the questionnaire was administered to groups of students during lectures either by me or by colleagues working at the other participating universities. Completed questionnaires were collected immediately after students had finished answering the questions. This method may achieve a 100 per cent response rate thanks to “the collective nature of data gathering, together with the presence of the researcher” (Quinlan, 2011: 224) who can establish rapport with the respondents and answer their questions on the spot (Sekaran and Bougie, 2010). In this study, the precise

response rate could not be determined⁷⁰; however, based on my observations during data collection, the vast majority of students had completed the questionnaire.

Figure 4.4 Main modes of administration of a survey



Adapted from Bryman (2012: 186) and Quinlan (2011: 223)

4.2.7 Focus group

Focus groups have been used successfully as a marketing tool in the private sector since the late 1960s (Bloor et al., 2001). In the academic field, the focus group has become a popular method for increasing numbers of scholars who are committed to triangulation. Krueger (1988: 18) defines a focus group as “a carefully planned discussion designed to obtain perceptions of a defined area of interest”. On a similar note, Morgan (1996a: 130) views focus group as a “research technique that collects data through group interaction on a topic determined by the researcher”. According to Curtis and Curtis (2011), a focus group is a case-centric, one-to-many approach which has the potential to generate rich, contextualised material. Similarly, Bryman (2012: 503) points out that this technique can elicit a wide variety of responses because participants are “forced to think about and possibly revise their views”. This advantage is also highlighted by Quinlan (2011: 291) who claims that “the group dynamic may produce data that would not be produced through a one-

⁷⁰ The register of students who attended the chosen lectures was not available. Thus it was not possible to compare the number of completed questionnaires with the number of students present in these lectures

to-one interview process". Therefore, undertaking focus groups was viewed as an opportunity to deepen and extend the survey analysis.

In comparison to questionnaires, focus groups are flexible – questions, themes or topics can be added or adapted to follow-up on interesting points (Curtis and Curtis, 2011). Nevertheless, as a focus group is a socially dynamic situation, the degree of control which a researcher has over the direction of the group discussion is limited (Bloor et al., 2001). Furthermore, due to time constraints, the facilitator of a focus group has to be fully prepared in advance. A detailed list of questions and topics is usually compiled which implies that focus group research is "hypothesis-testing and deductive in its character" (Curtis and Curtis, 2011: 102).

4.2.7.1 *Selecting participants*

Before any focus group can take place it is necessary to identify willing and eligible respondents. Focus groups are usually conducted with self-selected participants who have something to contribute to the discussion (Morgan, 1996a). Participants can either be strangers or part of a pre-existing social group. Bloor et al. (2001) cite the advantages of both approaches. According to them, pre-existing groups tend to have practical benefits because less recruitment effort is required and recruited individuals are more likely to attend the event. On the other hand, purpose-constructed groups might be more successful in cases where sensitive issues are discussed. An anonymous group setting allows participants to express themselves more freely and openly.

Due to the nature of this study, focus groups were composed of pre-existing social groups. Each focus group consisted of either first year or final year students who were attending the same course. I believe that the use of pre-existing social groups in this study was beneficial. Students knew each other from classes and seemed to be relaxed during the discussion. They were willing to share their opinions and experiences with me and other students. Nevertheless, one has to bear in mind that any topic can be sensitive to participants and the sensitivity of a topic is not fixed but socially constructed (Farquhar and Das, 1999).

4.2.7.2 *Recruitment*

It should be noted that questionnaires concerning students' earnings expectations were collected before the focus groups were conducted. Hence students who took part in focus groups were a subset of the survey respondents. The initial invitation to attend a focus group was sent by university email. However, some students were informed directly in class. Only those students who showed interest and confirmed their availability received the final

invitation. In other words, participants were not selected at random which means non-probability sampling was used. Thus, it can be argued that this self-selection could result in biased data (so-called voluntary response bias) because those students who chose to participate might not represent well the entire student population. Generally, one can assume that students who volunteered were more confident and opinionated than the 'average' student (Denscombe, 2002).

In order to ensure attendance, Bloor et al. (2001: 36) recommend "an established meeting venue and time for a formal pre-existing group". Therefore, all focus groups were scheduled to take place on university premises either during class time or immediately after the end of class. Unsurprisingly, groups that were held during class had better attendance.

4.2.7.3 Number of groups and group size

Another important decision which had to be made by the researcher concerns the number of focus groups. According to Krueger's (1994) recommendation, researchers should continue running focus groups until theoretical saturation is reached. This occurs when a clear pattern emerges and little new information is generated in subsequent focus groups. Morgan (1996b: 144) affirms that saturation becomes evident after the first few focus groups and for this reason "most projects consist of four to six focus groups". Due to time constraints and limited financial resources, I conducted three focus groups in England and three⁷¹ in the Czech Republic.

Quinlan (2011) maintains that the lowest number of participants in a group should be six and the highest should be twelve. Bloor et al. (2001: 26) suggest "six to eight participants as the optimum size for focus group discussion". While larger groups can produce a wider range of responses, they are more difficult to moderate (Morgan, 1996b). There might not be enough time for participants to express their views and experiences. Moreover, larger focus groups are vulnerable to being hijacked by a few vociferous members who will sidetrack or dominate the discussion. Other members of the group can be reluctant to challenge the dominant person. Instead, they will agree with his or her opinions (Curtis and Curtis, 2011). On the contrary, smaller groups might result in "a question and answer" situation as some participants might be shy and taciturn.

In this research, the aim was to "over-recruit" and invite ten students for each session. As expected, the number of students who turned up varied from group to group. On two

⁷¹ On one occasion only one student turned up so the scheduled focus group was changed into an individual interview.

occasions there were nine students in a group; however, one focus group had to be changed to an individual interview as only one student attended on the day.

4.2.7.4 Conduct of focus groups

As previously mentioned, all focus groups took place in a classroom environment. The main reason for choosing this venue was its accessibility. One has to keep in mind that the venue itself has an impact on data collected. It could be argued that the classroom might be too formal for this type of research. Nonetheless, I believe that being in a familiar environment helped students to relax. Moreover, it would be difficult for me to find a suitable venue outside the university. Finally, as Bloor et al. (2001: 39) highlight, “there is no such a thing as a neutral venue for a focus group”.

The choice of venue is also essential for recording. A focus group can generate a large amount of data which needs to be captured for subsequent analysis. When recording the data, there are two options available to facilitators. These are manual note-taking and audio-recording. The latter allows a more complete, accurate and permanent record to be made. In this research, a digital voice recorder was used. A reasonably quiet room was therefore required as any background noise could spoil recording. In my research, there was also the possibility of interruption from non-participating students which was eliminated by putting a sign on the door. At the beginning of each session, I made sure that students understood the purpose of recording and obtained their permission.

Since students had to give up some of their free time to participate in this research, the agreed time slot for each group was ninety minutes. There was no payment involved but tea and biscuits were offered. I prepared a fixed set of questions to be asked during the session to help me with structure and time management. Reflecting back on focus group discussion, the use of pre-determined questions was of limited value. While final year students generally provided fruitful conversations, focus groups with first year students had a tendency to turn into a group interview with a limited interactive discussion. Nevertheless, the list of questions proved itself invaluable when only one student showed up and an interview was conducted instead.

As Bloor et al. (2001: 59) point out, a transcription of the focus group is essential in academic research for a “detailed and rigorous analysis to be conducted”. Thus, once all focus groups had been completed, a thorough transcription of recordings was done.

4.2.8 In-depth (qualitative) interview

The research interview is a “purposeful conversation between two people” (Saunders et al., 2012: 372). Curtis and Curtis (2011: 29) define an interview as “a way of gathering data from one person at a time”. They add that an interview is a case-centric, one-to-one approach which requires a suitable number of appropriate cases (i.e. participants). In-depth interviews are often associated with a social realist approach. According to Curtis and Curtis (2011), social realists believe that participants have a rather firm set of pre-existing beliefs, perceptions and understandings, and the main role of an interviewer is to draw these out. By contrast, the social constructivist view maintains that “knowledge is constructed through discourse” and the interviewer is perceived as a “co-creator of knowledge” (Curtis and Curtis: 2011: 47).

Qualitative interviews can be semi-structured or unstructured. In both cases, the interview process tends to be flexible; the researcher may have an ‘interview guide’ but additional questions can be asked to follow up interesting points (Bryman, 2012). The interview I conducted was semi-structured and contained a set of open-ended questions. When carrying out a face-to-face interview, the interviewer “has an opportunity to establish a rapport with the interviewee” (Quinlan, 2011: 221). On the other hand, a researcher has to be careful to avoid interviewer bias which occurs when the interviewer tries to influence interviewees’ responses through comments or non-verbal behaviour (Saunders et al., 2012).

4.3 Evaluation of research

There are several criteria for evaluating research and data quality. The next section addresses the issues of reliability and validity in research. Moreover, different types of research triangulation which were applied in this study are discussed.

4.3.1 Reliability

Curtis and Curtis (2011: 13) describe reliability as the extent to which the analysis of data yields reliable results which can be reproduced on different occasions or by different researchers. Generally, reliability entails an evaluation of the measurement device and methods used to collect data (Denscombe, 2002). To be considered reliable, a measurement device should be able to give consistent results over time and in different circumstances (Hammersley, 2008; Quinlan, 2011). We have to bear in mind that even a well-developed instrument can produce unreliable results because, as de Vaus (2013) notes, some respondents give different answers to the same questions on different occasions, even

though there should have been no change (e.g. date of birth, ethnicity). Furthermore, the individuals' opinions and environment frequently change with time (Oliver, 1997).

Various tools have been established to assess the reliability of indicators; however, most of them (e.g. Cronbach's Alpha) are only applicable to multiple-item indicators. When a single question to measure a concept is used, reliability can only be estimated by a test-retest strategy. Nevertheless, in this research, it would be logistically impossible to administer the questionnaire to the same group of students on two separate occasions. Furthermore, the questionnaire was anonymous which means that it would not be possible to compare individual students' responses. Finally, the test-retest method is not very useful because, when retested, respondents may remember the original answers which would artificially inflate the reliability estimate. On the other hand, answering a question differently does not necessarily mean that the questionnaire is unreliable given that people's behaviour and attitudes change over time (Denscombe, 2002; Saunders et al., 2012; de Vaus, 2013).

In this research, the timing of data collection could have an impact on the reliability of students' answers. Whenever possible, questionnaires were distributed at the beginning of a lecture to reduce the impact of factors such as tiredness, boredom and hunger. At the end of the lecture, students were more likely to complete the questionnaire quickly (and pay less attention) so that they could leave the lecture theatre. With final year students, there were some cases when students possibly engaged in acquiescence to complete the questionnaire more quickly. Acquiescence (also called a response set) is concerned with the tendency of a respondent to agree with everything in the questionnaire, regardless of the content (Quinlan, 2011). These behaviours might also undermine data quality. Nevertheless, it is difficult to distinguish acquiescence from valid responses. Some students may have thoughtfully responded to each question, but the end result was a straight-line/set response pattern. On the other hand, selecting different options does not necessarily mean that a respondent provides truthful answers.

There is a possibility that focus group held on another day with other participants and different facilitator could achieve a completely different discussion. Nevertheless, Curtis and Curtis (2011: 112) believe that in well designed and moderated focus groups "the overarching themes and responses are very similar and consistent". In this study, the same set of questions was used in each focus group to guide the discussion.

4.3.2 Validity

Validity is probably the most important criterion of research (Bryman, 2012). In general, it refers to the quality of data and the data analysis used in the research (Denscombe, 2002).

Validity is concerned with “the extent to which truth-claims can be made, based on research” (Curtis and Curtis, 2011: 15). Put it differently, research is valid if “it measures what the researcher intends it to measure” (Oliver, 1997: 55).

According to Bryman (2012), we can distinguish four main types of validity:

- Measurement (construct) validity
- Internal validity
- External validity
- Ecological validity

Construct validity is concerned with instrument validity. The underlying question is whether a measure (e.g. test scores) really represents the concept that it is supposed to be denoting. Internal validity concentrates on the issue of causality. It raises the question whether we can be confident that a causal relationship between two or more variables being studied is genuine and not caused by other factors. External validity refers to the extent to which the research findings based on a sample of individuals or objects can be generalised beyond the specific research context. This is an important issue in the context of survey research (Hammersley, 2008). Finally, taking into account the context-specificity of people’s actions and attitudes, ecological validity addresses whether social scientific results reflect what happens in everyday life (Denscombe, 2002).

The concepts of reliability and validity are generally applied to judge the quality of quantitative research. Firstly, it is necessary to evaluate the validity of the questions, i.e. “to what extent the given answer captures the concept that it is aimed to measure?” (Diaz-Serrano and Nilsson, 2017: 2). In other words, did students understand the questions correctly? In this study, both first year and final year students were asked to estimate their earnings immediately after graduation (MEAG scenario) and 10 years after graduation (MEAG10 scenario)⁷². They were also asked how much they would expect to earn now without having a degree (MEWD scenario). There was an additional scenario for first year students who were also asked about their earnings expectations after 10 years in the labour market but without a degree (MEWD10 scenario).

⁷² A similar approach was adopted by several previous studies (e.g. Smith and Powell, 1990; Blau and Ferber, 1991; Wolter and Zbinden, 2002; Brunello et al., 2004). These two points in time were selected because the first 10 years in the labour market are usually associated with the most rapid increase in earnings; for instance Murphy and Welch (1990) found that early career earnings grow by almost 80 per cent and therefore focusing solely on graduate entry earnings could be misleading (Brunello et al., 2004).

The questionnaire for first year students⁷³ asked students about their earnings expectations immediately after graduation. One of the issues is that the question does not specify whether they expect to be in full-time or part-time employment; however, Manski (1996) observes that students interpret questions about future earnings expectations on the assumptions that they will be working full-time. Some students could also expect to have a temporary job after graduation while looking for a “graduate” position. For this reason, the questionnaire for final year students specifically asked students about earnings expectations in their “first graduate job” which was defined as a job that requires a degree.

When eliciting students’ earnings expectations students are assumed to provide “the arithmetic mean for the entire distribution of all possible outcomes” unless a precise definition is provided (Jerrim, 2008: 8). In this research, students were asked about the minimum, median (most likely) and maximum expected earnings⁷⁴ in order to improve the logical consistency of the answers⁷⁵. It was also reported in previous studies that students have a tendency to round their answers on earnings expectations towards the nearest multiple of two, five or ten (e.g. Dominitz and Manski, 1996; Jerrim, 2008). This tendency was also apparent in this study; the most frequently reported values are summarised in Table 4.2. Jerrim (2008) tested the effect of the bunching of estimates to the nearest £1,000. He computed both interval censored regression⁷⁶ and ordinary least square regression and then compared the coefficients and standard errors; however, he found negligible differences between the two models.

Another concern is how students adjust their future earnings expectations for inflation. In this research, students were asked not to consider inflation and state their expectations in current prices.

Table 4.2: Earnings expectations: Mode values

Scenario	English sample	Czech sample
MEAG	£20,000	20,000 CZK
MEAG10	£40,000	30,000 CZK
MEWD	£15,000	15,000 CZK
MEWD10	£25,000	20,000 CZK

73 This version of the questionnaire was in use for several years and no changes were made for continuity purposes.

74 In this study, only median (most likely) expected earnings are analysed.

75 There were few cases where students’ answers were not logically consistent (e.g. median expected earnings lower than the minimum expected earnings). These answers were excluded from further analysis.

76 This was based on the assumption that students’ actual estimates are unknown but lie within a censored interval. The value provided by students was treated as a midpoint.

With regard to students' personal characteristics, questions about parental income had the lowest response rate. Some students did not know this information or they were not willing to disclose it. The response rate seemed to be influenced by cultural values - Asian British students had higher levels of non-response to these questions. Some students told me it was unacceptable for them to disclose personal information about their parents. Furthermore, it is debatable to what extent students are able to estimate parental income; some students could have been merely guessing when answering these questions. However, students' answers had to be taken at face value since this study was anonymous and used only self-reported data that could not be independently verified. It is also necessary to bear in mind that parents' salaries/wages may not be the only source of household income.

The question on students' ethnicity only included five possible options. As discussed in the previous chapter there are differences between different ethnic groups in terms of their educational attainment and labour market outcomes. Therefore, some categories could be split further⁷⁷ to allow analysis between different ethnic groups.

Concerning the threats to internal validity, the timing of data collection is important (Saunders et al., 2012) – when possible, questionnaires were collected at the beginning of the lecture to maximise the response rate. In this study, there were a few students who started the questionnaire but abandoned it after a few questions. This was more prevalent with first year students at the two English universities. Moreover, when conducting a survey one has to be aware of respondent fatigue which is usually, but not exclusively, associated with longer questionnaires. Respondent fatigue refers to the tendency for respondents to lose interest and pay less attention to the task (Krosnick and Presser, 2010). The questionnaire for final year students was four pages long and as discussed in the previous section there might have been some cases of straight-lining to finish the questionnaire more quickly.

Finally, researchers conducting a survey must be aware of a social desirability response bias. This type of bias usually occurs in responses to socially sensitive questions when people try to show themselves “in a good light” (Robson, 2011: 240). Rather than reporting their true beliefs and attitudes, respondents tend to provide answers that are more socially acceptable or desirable. This research was anonymous and students were asked to

⁷⁷ E.g. Asian British could be split into Indian, Bangladeshi and Pakistani groups; Black British into African and Caribbean groups.

complete the questionnaire individually; however, the data collection was conducted in large lecture theatres where students could possibly see each other's answers which in turn could influence their responses.

4.3.3 Triangulation

Triangulation in social research can be traced back to the work of Campbell and Fiske (1959). This was later developed by Webb et al. (1966: 3) who claimed that "the most persuasive evidence comes through a triangulation of measurement processes". Triangulation can be characterised as "looking at the phenomenon under investigation from more than one perspective" (Quinlan, 2011: 192). The main objective of this technique is to minimise measurement biases. Recently the term triangulation has been used loosely, often as a synonym for mixed methods. Nevertheless, these two approaches should not be confused. As Bazeley (2004) asserts, it is necessary to clarify not only what is being mixed but also how it is being mixed. Triangulation focuses on a single problem from different angles (Denscombe, 2002). However, mixed methods tend to address different problems in the same research study.

A useful taxonomy of triangulation was provided by Denzin (1970) who distinguished four types of triangulation – triangulation of data, investigators, theories and methodologies. In data triangulation, researchers collect data from different samples, at different times and different location. In other words, the same phenomenon is studied in different settings. This type of triangulation was used in this study – every year questionnaires were collected from different students. Investigator triangulation means that there is more than one researcher gathering and interpreting data. The main purpose of this research was to produce a doctoral thesis which must be written individually. Therefore, it was not possible to use researcher triangulation.

Theoretical triangulation refers to the use of multiple perspectives or theories to interpret the data. As discussed in the previous chapter there are competing theories that try to explain the positive relationship between education and earnings. Human capital, the screening/signalling hypothesis and credentialism were considered in this study which means that theoretical triangulation was applied.

Finally, researchers can triangulate by methodology. Methodological triangulation is the most common and compares "findings produced via one method to findings produced via another method" (Bloor et al., 2001: 12). Furthermore, Denzin (1970) has drawn a distinction between within-method (intra-method) triangulation and between-method (inter-method) triangulation. The within-method type uses different strategies within a given method to

collect data (e.g. multiple scales in a questionnaire to measure the same variable). More popular is the between-method strategy when researchers combine at least two contrasting methods within one study. However, the effectiveness of between-method triangulation is based on the assumption that “the weaknesses in each single method will be compensated by the counter-balancing strengths of another” (Jick, 1979: 604).

As Jick (1979) points out, the triangulation process is not without some shortcomings. Although a different type of data can deepen and enrich our understanding of a particular topic, triangulation should not be viewed as a validation procedure because each source of data has to be understood on its own terms (Bazeley, 2004). As Bloor et al. (2001: 13) warn, “research methods are not readily substitutable” which implies that the data produced by each method are not directly comparable. They add that, for a given research question, there is always one method more appropriate than any other.

There are also practical problems associated with the mixing of methods (Bazeley, 2004). Firstly, researchers must have a sufficient knowledge of multiple methods in order to understand and interpret findings obtained from different methods. Secondly, it is desirable to disseminate research findings; however, the audience might not be familiar with some of the research methods. Last but not least, the triangulation process can be expensive and time-consuming.

4.4 Research ethics

Research ethics has become “a cornerstone for conducting effective and meaningful research” (Drew et al., 2008: 56). Similarly, Mertens (2009: 12) believes that research ethics “should be an integral part of the research planning and implementation process”. Research ethics can be characterised as standards of behaviour that guide researchers’ conduct with regard to the rights of those who become the subject of the study (Saunders et al. 2012). It is universally accepted that “participants should not be adversely affected as a consequence of engaging in the research” (Denscombe, 2002: 179). From this arises a researcher’s duty to protect the interests of participants.

When designing this research I carefully considered possible ethical issues. Moreover, in order to comply with the requirements of the Business School Ethics Committee, I submitted two Ethical Review forms⁷⁸ prior to data collection. Both applications were formally approved by the Committee and can be found in Appendix 4.5 and Appendix 4.6. The next section

⁷⁸ One for questionnaire data collection and one for focus groups.

focuses on four fundamental principles of research ethics and their practical application in this study.

4.4.1 Informed consent

Informed consent is an ethical principle which is regarded as a central to ethical research practice (Denscombe, 2002; Wiles et al., 2007; Quinlan, 2011). The British Sociological Association (2002) defines informed consent as the responsibility of the researcher to “explain in appropriate detail, and in terms meaningful to a participant, what the research is about, who is undertaking and financing it, why it is being undertaken, and how it is to be disseminated and used”. Informed consent can be directly expressed (verbally or in writing) or tacitly implied.

In this study, students were adequately informed of the nature and purpose of the research, what their role would be, and how the research results would be used. There were written instructions within the questionnaire which included a note on the confidentiality and anonymity of the data. Students were also given a verbal briefing during the lecture which covered the length and the international scope of the project. Moreover, the level of confidentiality was further explained to students⁷⁹. Written signed consent was not obtained because this study carries minimal risk to participants (Drew et al., 2008). Moreover, written consent could possibly act as a barrier and discourage some students from participating (de Vaus, 2013). When conducting focus groups students who took part gave their consent verbally. When collecting questionnaires students tacitly denoted their consent to participate by completing and returning the questionnaire.

4.4.2 Voluntary participation

Another important ethical principle is voluntary participation. While conducting a survey, researchers ask respondents to provide personal information and give up their time. Therefore people should not be required to participate in a study (Blaikie, 2009; Bryman, 2012; de Vaus, 2013). Participation in the survey and focus groups was voluntary and students had the right to refuse to complete the questionnaire. However, once the questionnaire was completed it was not possible for a student to withdraw from the study since the questionnaire was anonymous. In addition, it should be noted that the questionnaire involved the ‘involuntary indirect participation’ of students’ parents by asking about their level of education and income (de Vaus, 2013).

⁷⁹ Students were informed that the data would be only accessible to the researcher and not passed to any third party. They were also told that any publication based on this research would only include aggregate data analysis to further protect their anonymity.

4.4.3 Harm to participants

When conducting any research, researchers must take reasonable steps to avoid harming research participants both physically and psychologically (Drew et al., 2008). The risk of physical harm and discomfort in this research is considered minimal because the risk is not greater than general risks encountered in everyday life. In terms of psychological harm, answering survey questions can possibly induce stress, feelings of guilt or humiliation (de Vaus, 2013). In addition, Curtis and Curtis (2011: 17) warn that researchers can never be certain that “a participant has not had a negative personal experience related to the research topic”. For these reasons, questions were carefully selected to minimise the risk of emotional discomfort and over-disclosure. During focus groups, students were also told that they would not have to answer a question if they did not wish to do so.

The other side of the coin is that researchers themselves face the risk of personal harm (both physical and psychological) and the concern for their safety should not be dismissed (Denscombe, 2002). Craig et al. (2000) identify potential risks for researchers including the risk of a physical threat, the risk of psychological trauma, the risk of being in a compromising situation and increased exposure to general risks of daily life. In order to minimise personal harm, data collection took place only at university premises and my focus group timetable was known to other research colleagues.

4.4.4 Privacy and confidentiality

The researcher must ensure that individuals' right to privacy and confidentiality is protected throughout the research process (Blaikie, 2009; Robson, 2012). Participants' privacy should be 'invaded' as little as possible. Thus, students were assured that their contribution to this research would be confidential. The questionnaire was completely anonymous and the students were asked not to write down their name or student number. Students who took part in focus groups did not reveal their identities either. They were also informed that any report or publication containing data from this survey would not contain any personal information that could indirectly disclose their identities.

Completed paper questionnaires and a recording device were stored securely in a locked cabinet, in a locked office, only accessible to me and my supervisor. Electronic transcriptions were kept on a password-protected computer at the university. However, one has to bear in mind that there are certain limitations to confidentiality. As Bloor et al. (2001) point out, information disclosed during the focus group setting can be shared among members of a pre-existing group and therefore I had only limited control over confidentiality outside the

group setting. The issue of anonymity and confidentiality is further addressed in the Ethical Review forms (see Appendix 4.5 and Appendix 4.6).

4.5 Limitations of the methodology

At this point, it is necessary to draw attention to limitations associated with the chosen methodology. One of the main limitations of this study is its sampling technique. As discussed earlier non-probability sampling (convenience) was used for both survey and focus groups which limits the generalizability of the results. Another limitation was the sample size which varied between different years and institutions. While the response rate was high the number of students surveyed each year at each institution depended not only on the size of the cohort but also on the attendance rate and the access to lectures to distribute questionnaires.

There was an effort to include “elite” institutions in this study – two English Russell group universities were invited to take part in the research but both “refused” for reasons which were not clear. Therefore, it was not possible to analyse the effect of university prestige on students’ earnings expectations using quantitative data.

The number of participants varied from focus group to focus group. In order to attract students and achieve a better participation rate, it would possibly be beneficial to offer a monetary incentive. While students completing questionnaires had no available information prior to the actual survey, students who decided to take part in a focus group were given some brief introduction to the problem before the focus groups took place. However, the questions were not known in advance; so students could not prepare their answers.

Another limitation is related to possible data contamination. In order to achieve a good response rate and sufficient sample size, questionnaires were mostly collected during large lectures. Students were asked to provide honest answers and not to discuss their answers with their peers. However, there was usually only one person collecting the data so possible discussion between students could not be effectively prevented. The obvious solution would be to target smaller seminars where it would be possible to stop any interaction between students. On the other hand, this approach would be more time-consuming and would probably result in a smaller sample.

4.6 Methods of data analysis

Both qualitative and quantitative data were collected for this project. There are several possible strategies for analysing mixed methods data (Teddlie and Tashakkori, 2009). I used parallel mixed analysis which involves two independent sets of the data analysis. Qualitative data obtained from focus groups were transcribed and coded into categories. Content analysis was used in order to identify the existence and frequency of certain themes within the text (Sekaran and Bougie, 2010). Where appropriate, findings from both quantitative and qualitative analysis were subsequently linked and combined to provide a better “understanding of the phenomenon under investigation” (Teddlie and Tashakkori, 2009: 266).

Large data sets from completed questionnaires were analysed using the statistical package PASW. Statistical tests that were used in this study are described in section 4.6.3. Before one can start testing the research hypotheses it is necessary to take some preliminary steps to make sure that the data are “accurate, complete, and suitable for further analysis” (Sekaran and Bougie, 2010: 304). Firstly, data collected through questionnaires need to be coded, typed into a computer and edited. Each question in the questionnaire was related to one variable which had two or more exhaustive and mutually exclusive values. Each response to each question was first coded as a number and manually inputted into MS Excel and then the complete data sets were loaded into the PASW.

4.6.1 Statistical considerations

There are several statistical considerations that should be taken into account before one proceeds with the actual data analysis. Firstly, the level of statistical significance has to be established (section 4.6.1.1). Secondly, the researcher has to decide whether to use one-tailed or two-tailed level of significance (section 4.6.1.2). Section 4.6.1.3 focuses on the reasons for choosing parametric tests over non-parametric tests. Finally, the presence of outliers and their treatment is discussed in section 4.6.1.4.

4.6.1.1 Statistical significance

When conducting any statistical test there is always a possibility that results are as a result of chance. We can distinguish two types of errors. A Type I error occurs when we assume that there is a genuine effect in our population when, in reality, there is not (Field, 2013). In other words, it is the rejection of a null hypothesis when it is true (Curwin et al., 2013). The null hypothesis is a claim that “the independent variable has no influence on the dependent

variable” (Cramer and Howitt, 2004: 113). By contrast, an alternative hypothesis assumes that there is a relationship between the dependent and independent variable (Field, 2013).

A Type II error is the failure to reject a null hypothesis which is false (Curwin et al., 2013). This type of error occurs when we believe that there is no difference or association between two or more variables when in fact there is one (Cramer and Howitt, 2004). While the probability of making a type II error (known as the β -level) is generally unknown, the probability of making a type I error (known as the α -level) is set before the test is conducted. In social science research, the α -level of 0.05 is generally used to indicate statistical significance (Sekaran and Bougie, 2010).

When testing the null hypothesis we assume that the null hypothesis is true. The following step is to “fit a statistical model to our data that represents the alternative hypothesis and see how well it fits” (Field, 2013: 62). We have to then determine how well the model fits the data by calculating the probability (called the p-value) of getting that ‘model’ if the null hypothesis were true. Finally, we can compare the p-value and the α -level. If the p-value is smaller or equal to 0.05, we can conclude that the result is statistically significant and reject the null hypothesis. On the other hand, if the p-value is greater than 0.05 the result is considered to be statistically non-significant and we may fail to reject the null hypothesis.

The main drawback of using the arbitrary 0.05 value is that a p-value of 0.049 and 0.051 are both considered to be on the borderline of statistical significance. Although the difference between these two values is negligible, the latter would not be accepted as statistically significant. In this study the arbitrary p-value of 0.05 was considered to be statistically significant; however, even results that had not been found to be statistically significant were reported as they could be of practical relevance. Moreover, for some research questions, multiple significance tests were performed. When more than one test is used the probability of making the Type I error increases. To control for this one may reduce the significance level of 0.05 by the number of comparisons one wants to make (Cramer and Howitt, 2004). This classical procedure of adjusting the α -level is called the Bonferroni method. One of the drawbacks of this method is that it is conservative when many tests are carried out (Field, 2013). In other words, we are more likely to make a Type II error in which we assume that there is no difference between two groups when there is actually a difference (Cramer and Howitt, 2004). Nevertheless, in this study, no more than two test were carried out simultaneously. Thus, the adjusted α -level was $0.05/2 = 0.025$

Finally, one should bear in mind that statistical significance does not say anything about the importance of the results; it only indicates the chances of observing these results. When

large samples are used, some statistical tests become more sensitive to detecting very small differences. In other words, such results are more likely to be statistically significant.

4.6.1.2 One-tailed vs. two-tailed tests of significance

As noted above, null and alternative hypotheses were developed for some research questions. All of the alternative hypotheses were two-tailed. A two-tailed hypothesis is non-directional. It predicts that the independent variable will have an effect on the dependent variable; however, the direction of the effect is not indicated. The significance level of 0.05 in a two-tailed level of significance is divided equally (i.e. 0.025) between the two tails of the distribution of the results (Cramer and Howitt, 2004).

On the other hand, in a one-tailed hypothesis, the direction of the relationship between the variables is specified and the significance level of 0.05 is confined to the predicted tail (Cramer and Howitt, 2004; Sekaran and Bougie, 2010). The main argument for using a directional hypothesis is an increased power to reject the null hypothesis and obtain a significant result; however, directional hypotheses cannot detect an effect in the opposite direction. Thus they are not suitable if previous research has yielded conflicting findings on variables of interest. Some studies have found a positive correlation between family income and students' earnings expectations while other studies have found no relationship between these two variables. Moreover, some variables used in this study (e.g. the effect of supervised work placement and study abroad on earnings expectations) were not explored previously so there were no strong grounds for predicting the results. For these reasons, two-tailed tests of significance were used.

4.6.1.3 Parametric vs. non-parametric tests

One of the most fundamental decisions researchers have to make is whether to use parametric or non-parametric statistical tests. Parametric tests use parameters (such as mean and standard deviation) to describe the data. In order to use parametric statistics, we have to assume that our sample is drawn from a normally distributed population.

The main advantage of non-parametric tests is that they rely on fewer and less stringent assumptions (Pallant, 2016). For instance, they do not require data to be normally distributed. The problem of the shape of the distribution of scores is overcome by ranking the data (Field, 2013). Non-parametric tests can also be used on data that are measured on nominal and ordinal (ranked) scales since they do not require interval or ratio levels of measurement (Cramer and Howitt, 2004; Pallant, 2016). Nevertheless, there are two drawbacks associated with non-parametric tests. Firstly, they are statistically less powerful

than the analogous parametric procedures (Sheskin, 2011). Secondly, it is more difficult to interpret their results which are based on rankings of the values rather than a testing of the actual scores.

Simulation studies have shown that most parametric tests can be used when the population is only approximately Gaussian. The tests used in this study (t-test and multiple regression) are considered to be fairly robust to violations of the normality assumption. According to the central limit theorem, in large samples (i.e. $n > 30$) “the estimate will have come from a normal distribution regardless of what the sample or population data look like” (Field, 2013: 171). Moreover, as Fagerland (2012) argues, the robustness of the t-tests to deviations from normality increases with the sample size - when the sample size is above 200, the t-test is “robust even to heavily skewed distributions”. Non-parametric tests are thus recommended for small sample sizes (i.e. $n < 30$). All sub-samples used in this study had at least 30 subjects; therefore, it was decided to use parametric tests.

4.6.1.4 Screening for outliers

When assessing normality of distribution, it is necessary to check for outliers as they are a major cause of a skewed distribution. If any outliers are found, the researcher has to decide how to handle them. An outlier can be defined as a data point which is very different from the rest of the data (Field, 2013).

If any outlier is discovered in the sample, the researcher should examine the nature of this outlier. Histograms and box-plots were used to screen for outliers. Several outliers were detected at the upper end of the distribution. One of the first steps is to check whether the outlier arises from human error; for example, data could have been wrongly recorded. The earnings expectations which had been identified as outliers were checked against the original values reported in questionnaires. Nevertheless, all of these values were correct.

Another common cause of outliers is intentional misreporting when participants “purposefully record incorrect data” (Osborne and Overbay, 2004). It is possible that a target audience deliberately may try to sabotage the research (Huck, 2000). Indeed, some of the students’ responses suggest that a small proportion of students did not take the questionnaire seriously. For instance, some students reported expected earnings of £300,000 or more. Nonetheless, despite being outliers, it is difficult to say whether these scores are not genuine. They can be legitimate cases sampled from the correct population (Osborne and Overbay, 2004).

4.6.2 Treatment of outliers

One should be concerned about outliers because they can bias statistical analyses. Even a few problematic scores can distort the group results. Firstly, the normality assumption can be compromised if the outliers are not distributed randomly (Osborne and Overbay, 2004). This problem is apparent in data on earnings expectations because outliers can be found only at the upper end of the distribution. Moreover, there is an increased chance of obtaining a type I (alpha) error (i.e. rejecting the null hypothesis when it is actually true) because means can be greatly affected by outliers. Secondly, as Cousineau and Chartier (2010: 59) notice, outliers have an influence on standard deviation which means that the chances of detecting a significant difference are reduced and the likelihood of a type II (beta) error (i.e. failing to reject a null hypothesis that is false) is increased.

In the literature, we can find several methods which aim to reduce the impact of outliers. Nonetheless, none of these methods has been accepted unanimously. As outliers tend to skew the distribution, one of the common recommendations is to apply a transformation to the data which allows the keeping of extreme values in the data set. This procedure changes the differences between different variables but it does not affect the relationships between them (Field, 2013). One of the drawbacks of transformation is that the same transformation has to be applied to all variables. Furthermore, as Osborne and Overbay (2004) point out, it can be problematic to interpret transformed scores. In a similar vein, Grayson (2004: 112) emphasises that transformations can have “empirical implications, which often outweigh any purely statistical benefit”.

As Sekaran and Bougie (2010: 311) note, income data tend to be unevenly distributed and logarithmic transformation is sometimes applied so that “the high incomes are brought closer to the lower end of the scale and provide a distribution closer to a normal curve”. Hence it was decided to log transform all sub-samples. Nevertheless, the transformation did not solve the problem because although the skewness improved in some sub-samples, the others became skewed as a result of log transformation. Moreover, as Field (2013: 172) notes, in large samples, outliers are “a more pressing concern than normality”.

Some authors suggest removing outliers even if they are legitimate cases (e.g. Judd and McClelland, 1989; Osborne and Overbay, 2004). They argue that analysing data without outliers would lead to a better estimate of population parameters. On the contrary, some statisticians insist on keeping the outliers in the data set (e.g. Orr et al., 1991). One strategy that can be used to reduce the impact of extreme values is winsorizing. This technique involves replacing extreme values and outliers with the nearest value that would not be considered an outlier. As Field (2013) notes, there are some variations on winsorizing; in this

study, the extreme values were replaced with a score nearest to three standard deviations from the mean⁸⁰.

4.6.3 Statistical techniques

The next section describes several statistical techniques (including correlation, multiple regression and t-tests) which were used for quantitative data analysis and hypothesis testing.

4.6.3.1 Point-biserial correlation

Point-biserial correlation is a special type of the Pearson product-moment correlation. Pearson's product-moment correlation is a standardised measure used to describe the strength and direction of the linear relationship between two variables. Point-biserial correlation measures the strength of the relationship between two variables when one of the two variables is dichotomous. The size of the correlation can vary from -1 to 1, with -1 corresponding to a perfect negative correlation and +1 to a perfect positive correlation (Morris, 2012). A correlation of 0 indicates that there is no linear relationship between two variables. Pearson's product-moment correlation coefficient (r) can be calculated by "multiplying the standardised scores of the two variables to obtain their product; these products are then summed and divided by the number of cases minus one to give the mean population estimate of the products" (Cramer and Howitt, 2004: 38). To assess the strength of the correlation, Cohen (1988) suggests the following guidelines:

- Small: $r = .10$ to $.29$
- Medium: $r = .30$ to $.49$
- Large: $r = .50$ to 1.0

We can also calculate the so-called coefficient of determination (R^2) which indicates the proportion of variance in one variable explained by a second variable. To calculate its value we have to square the Pearson's product-moment correlation coefficient (r).

4.6.3.2 Multiple regression

Simple regression is a statistical method designed to determine the strength of the relationship between the dependent (outcome) variable and the independent (predictor) variable. This relationship can be expressed by the equation of the least squared regression line which takes the following form:

⁸⁰ The number of outliers/extreme values was highest in the MEAG10 scenario where 17 scores were replaced.

$$Y_i = b_0 + b_1X_i + \varepsilon_i$$

where Y is the outcome variable, X is the predictor, b_0 is an intercept, b_1 is the slope and ε is the error.

When there are more than two predictors, the technique is referred to as multiple regression and the equation takes the following form:

$$Y_i = b_0 + b_1X_{1i} + b_2X_{2i} + \dots + b_nX_{ni} + \varepsilon_i$$

where the outcome variable is denoted as Y and each predictor is denoted as X . Each predictor “has a regression coefficient b associated with it, and b_0 is the value of the outcome when all predictors are zero” (Field, 2013: 880).

In regression, the difference between the actual value of a dependent (outcome) variable and its predicted value is called a residual (Cramer and Howitt, 2004). In order to assess the error in a regression model, we add the residuals and square them to obtain the residual sum of squares (SS_R) which measures how well a particular line represents the data. The ‘line of best fit’ is defined as the one which minimises the sum of squared disagreements between the actual Y -values and those predicted by the model (Morris, 2012). This method is known as ordinary least squares regression.

When performing regression analysis it is also necessary to evaluate the goodness of fit which is “an index of how well a model fits the data from which it was generated” (Field, 2013: 875). The first step is to calculate the mean and compare the observed values with the values predicted by the mean. The differences are then squared in order to obtain the total sum of squares (SS_T) which represents how good the mean is a model of the observed data. The following step is to use a regression model and compare its SS_R value and SS_T . The difference is called the model sum of squares (SS_M) and shows the “reduction in the inaccuracy of the model resulting from fitting the regression model to the data” (Field, 2013: 301). We can then calculate so-called R^2 as follows:

$$R^2 = SS_M/SS_T$$

R^2 is interpreted as the percentage of the variation in the outcome that can be explained by the model. Nevertheless, the value of R^2 is affected by the number of predictors. As Morris (2012: 334) points out, “the addition of any variable to the regression equation (even a completely irrelevant one) will result in an increase of R^2 value”. For this reason, adjusted R^2 which takes into account the number of variables in an equation should be used to assess how well the model fits the data.

Another measure that is used to test the overall fit of the model in multiple regression is the so-called F-ratio. It is the ratio of “the average variability in the data that a given model can explain to the average variability unexplained by the model” (Field, 2013: 875). The value should be greater than 1 – in this study, the F-ratios were 89.801 (MEAG scenario) and 52.175 (MEAG10 scenario). The F-statistic can also be used to calculate the significance of R^2 by testing the null hypothesis that R^2 is zero (i.e. the model has no predictive capability). The F-ratios in this study were both highly significant ($p < .001$). Thus, the model results in a significantly better prediction of students’ earnings expectations, compared to using the mean values of earnings expectations.

Once the model has been evaluated we can determine the strength and the direction of the association between the outcome variable and a predictor. All predictors in a regression model have an unstandardised regression coefficient (b) which represents “the change in the outcome resulting from a unit change in the predictor” (Field, 2013: 303). The unstandardised coefficient values can be used to construct a regression equation (Pallant, 2016). The b coefficient indicates the strength of association between an independent (predictor) variables and dependent (outcome) variable in the units of measurement of the predictor. This implies that the unstandardised coefficients are not directly comparable. Instead, we can use standardised regression coefficients (β) which represent “the change in the outcome (in standard deviations) associated with a one standard deviation change in the predictor” (Field, 2013: 870). Unlike the unstandardised ones, the standardised regression coefficients only take a value from -1 to 1 which enables the size of the association between the outcome variable and the predictors to be compared on the same scale (Cramer and Howitt, 2004).

In order to obtain a reliable regression model, it is necessary to collect enough data. There are different guidelines concerning the number of cases required for multiple regression. According to Stevens (2002: 72), “for social science research, about 15 participants per predictor are needed for a reliable equation”. Tabachnick and Fidell (2012: 123) provides a formula for calculating the minimum sample size which takes into account the number of independent variables: $N > 50 + 8m$ (where m = number of independent variables). In this study, there were 31 independent variables (including dummy variables) included in the multiple regression models and 2970 cases were analysed. Taking into account the guidelines described above the sample size was adequate for regression analysis.

Multiple regression is a statistical technique which makes a number of assumptions that concerns both the independent variables and the residual error. One of the assumptions is that each independent variable in the model is linearly related to the dependent variable

(Curwin et al., 2013). Correlation coefficients can be used to assess the relationship between the predictors and the dependent variable. All of the predictors used in this study had some relationship with the dependent variable (i.e. earnings expectations) although for some variables the correlations were small (i.e. $r < 0.3$).

Another assumption states that each independent variable is not related to other independent variables in the model. When independent variables are highly correlated the problem of multicollinearity exists (Field, 2013). As part of the multiple regression procedure, the PASW provides 'collinearity diagnostics' with two values: Tolerance and VIF (i.e. variance inflation factor). Tolerance indicates "how much of the variability of the specified independent variable is not explained by other independent variables in the model" (Pallant, 2016: 159). The VIF is the inverse of the Tolerance value. A VIF value above 10 and a Tolerance below 0.1 indicates a problem (Field, 2013). In this study, the independent variable "country of study" had high VIF value (36.004) and low tolerance (0.028). Nevertheless, in this case, the high VIF value was caused by the inclusion of products of other variables⁸¹ which is further discussed below. In this situation, a high VIF is not a concern and multicollinearity has no adverse effects (Allison, 2012).

Another assumption concerns the presence of outliers which can bias estimates of parameters and affect the sum of squared errors. As Field (2013: 167) points out, "if the sum of squared errors is biased, so are the standard error and the confidence intervals associated with the parameter estimate". As discussed in section 4.6.2. there were several outliers detected which were skewing the distribution. The winsorising technique was used and the extreme values were replaced. The PASW offers a 'casewise diagnostics' which identifies cases "that have standardised residual values above 3.0 or below -3.0" (Pallant, 2016: 161). We can then check whether any unusual cases have any undue influence on the model as a whole by checking the value of a Cook's distance. The cases with values larger than 1 are considered problematic (Field, 2013). Nevertheless, the highest value in my sample was .029, which suggests no major problems.

In terms of residual errors, it is assumed that they would be normally distributed and their mean would be zero (Curwin et al., 2013). This means that differences "between the model and the observed data are most frequently zero" (Field, 2013: 311). This assumption was met - the mean value of the standardised residual was 0 in the sample.

⁸¹ There were 21 interactions in the regression model which included variable "country of study".

Finally, all predictor variables must be quantitative or categorical (with two categories). In this study, all independent variables were categorical and some of them had more than two categories. For this reason, it was necessary to create so-called dummy variables. Categorical variables with more than two groups were recoded into a series of dichotomous variables which can take values of only 0 or 1 (Field, 2013). The number of dummy variables is always one less than the number of groups in the categorical variable to prevent the problem of collinearity (Cramer and Howitt, 2004). One group was chosen as a baseline against which all other groups were compared. Once the dummy variables have been coded as 0 or 1 they can be directly entered into multiple regression.

Before conducting multiple regression, it is also necessary to choose the way in which variables will be entered into the model. Predictors can be entered into the model hierarchically, simultaneously or in a step-wise manner. In hierarchical regression, independent variables are entered into the model in the order specified by the researcher. Predictors are entered in blocks, “with each independent variable being assessed in terms of what it adds to the prediction of the dependent variable after the previous variables have been controlled for” (Pallant, 2016: 150). In stepwise regression, the decision about the order in which predictors are entered into the model is based on a purely mathematical criterion. This method is often criticized (e.g. Field, 2013, Studenmund, 2014; Pallant, 2016) because it allows the computer to decide which variables will be entered into the model which can result in overfitting the model (i.e. too many variables that make little contribution to predicting the outcome) or underfitting the model (i.e. leaving out important variables). The most commonly used method is called a standard multiple regression which was used in this study. In this method, all predictors are forced into the model simultaneously and each independent variable is assessed in terms of its predictive power.

When conducting multiple regression, it is also possible to explore the interaction effects between independent variables. The so-called moderation occurs when “the relationship between two variables changes as a function of a third variable” (Field, 2013: 407). When testing for moderation we have to include the predictor, moderator and the interaction term which is the combined effect of two variables. In order to create the interaction variable, it is necessary to multiply the two variables together.

A regression model that tests for moderation can be expressed as follows:

$$Y_i = b_0 + b_1X_{1i} + b_2X_{2i} + b_3X_1X_{2i} + \varepsilon_i$$

If the interaction is found to be significant then moderation is present. In this study, some of the independent variables (e.g. country of study, gender, ethnicity, work placement and study abroad) were included in the regression model as a moderator variable.

4.6.3.3 T-test

There are different techniques that can be used to test for significant differences between groups. When we want to compare the values on some continuous variable for two groups or on two occasions we can conduct so-called t-tests. There are two different types of t-tests. An independent-samples t-test (also known as independent-measures) is used to compare the mean scores of two different groups of participants. The grouping (independent) variable divides participants (cases) into two mutually exclusive groups. On the other hand, a paired-samples t-test (also known as repeated-measures) is used to compare the mean scores for the same group of people on two different occasions or under two different conditions (Pallant, 2016). This test uses the t-statistic that establishes whether two means collected from the same sample differ significantly.

To calculate the t-test we can use the general formula below (Field, 2013: 365):

$$t = \frac{\text{observed difference between sample means} - \text{expected difference between population means}}{\text{estimate of the standard error of the difference between two sample means}}$$

The top half of the equation is the 'model' and the bottom part is the 'error'. If the null hypothesis is true, then we expect there to be no difference between the population means.

Both independent-samples and paired-samples t-test are parametric tests based on a normal distribution. One of the assumptions of the paired-samples t-test is that the sampling distribution of the differences between scores should be normal (Field, 2013). However, with large samples (i.e. $n > 30$), a violation of this assumption "is unlikely to cause any serious problems" (Pallant, 2016: 250). Another assumption of the t-test is the homogeneity of variance which assumes that the variance of the outcome variable is stable at all levels of the predictor variable. To test this assumption, we can carry out Levene's test for equality of variances which tests the null hypothesis that the variances in different groups are equal (i.e. the difference between the variances is zero). One of the drawbacks of Levene's test is that small differences in group variances can produce a significant result when sample sizes are large (Field, 2013).

Levene's test calculates the deviation for all the scores (i.e. the absolute difference between the score in a group and the mean score for that group) and then performs a single-factor

repeated-measures analysis of variance on the deviations (Cramer and Howitt, 2004). A significant result indicates that the variances are not equal and the assumption of homogeneity of variances has not been met. In this case, the degrees of freedom have to be adjusted to correct the problem using the Welch-Satterthwaite method. This method uses a t-test which is based on separate variances rather than pooled variances (Zimmerman, 2004).

To evaluate the importance of the t-test results in practical terms it is necessary to calculate the effect size which indicates the relative magnitude of the differences between means (Pallant, 2016). There are a number of different effect size statistics; the one most commonly used is eta squared (η^2). Eta squared “can range from 0 to 1 and represents the proportion of variance in the dependent variable that is explained by the independent variable” (Pallant, 2016: 247). The SPSS output does not provide eta squared values for t-tests but the value can be calculated using the information in the output. The formula is as follows:

$$\text{eta squared } (\eta^2) = \frac{t^2}{t^2 + df}$$

where t is the t-value and df is the degrees of freedom.

To interpret its value, Cohen’s (1988) guidelines, summarised in Table 4.3, can be used.

Table 4.3 Cohen’s (1988) criteria for effect size

Eta squared (η^2).	Effect size
.01	Small effect
.06	Moderate effect
.14	Large effect

4.7 Summary

This chapter started with the “research onion” model and explained each step in the research process. Ontological and epistemological assumptions have been reviewed and three dominant paradigms have been identified. Data collection took place once a year for four years; however, different students were involved on each occasion. Thus this study can be classified as a cross-sectional survey. Primary data were collected through the questionnaires at two universities in the Czech Republic and two universities in England. The survey involved a substantial number of the first year and final year students who

pursued degrees in Business studies. Non-probability convenience sampling was used which is one of the main drawbacks of this study.

While a questionnaire was the dominant research tool, a mixed-methods approach was used because students' earnings expectations are complex and contain many facets. As Robson (2012) explains, the multi-strategy design is particularly useful for complex phenomena in real world settings. Focus group discussions were conducted as a follow-up method to supplement survey results. This method provided valuable insights about students' labour market expectations that would not have been possible through the use of questionnaire alone. This approach also allowed to address a wider range of research questions. The project complied with ethical criteria and was approved by the ethics committee. The ethics committee agreed that this project posed no serious ethical problems to students. Participation was voluntary and students could decline to complete the survey. The questionnaire was anonymous to protect students' privacy. Confidentiality was achieved by keeping the paper questionnaires and recording device in a locked cabinet, in a locked room. Electronic transcriptions were stored on a password-protected computer within the university. Finally, only aggregated data were used when conducting statistical analysis.

The final part of this chapter discusses some statistical considerations and statistical techniques which were used to analyse primary data. The results of the data analysis are presented in the following chapter.

CHAPTER 5: FINDINGS OF THE STUDY

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5.1 Introduction

This chapter presents the findings of a study on students' earnings expectations and their perceptions of the link between education and the labour market.

Chapter 3 reviewed the literature focusing on three theories (including human capital, screening/signalling and credentialism) that try to explain the relationship between educational attainment and socio-economic status. While the actual rate of returns to education has been scrutinised, research on expected earnings is limited. Moreover, cross-country comparative studies on this subject are scarce; thus this study attempts to fill the gap in the literature by comparing expectations of Czech and English students.

In Chapter 4 the research methodology was presented – a survey strategy using questionnaires and focus groups was adopted in this research. In both countries, data were collected from first year undergraduate students. With regard to final year students, the English sample consisted of undergraduate students but the Czech sample was drawn from Masters students. While the focus groups were conducted only during the academic year

2012/2013 (i.e. cross-sectional design) the questionnaires were repeatedly collected every academic year between 2010/2011 and 2014/2015 (i.e. trend study).

This chapter aims to answer the research questions that were formulated in Chapter 3. A number of statistical techniques were applied to analyse the primary data. Where appropriate, hypotheses were stated and tested to answer the research questions. The rest of this chapter can be divided into two parts.

Firstly, a descriptive analysis of the aggregate data is provided. Descriptive summaries (both graphical and numerical) at a national and institutional level can be found in sections 5.3.1 to 5.3.3. To describe the samples several statistical methods such as distributions, means and cross-tabulations were employed. The second part of this chapter is devoted to answering the research questions. Where possible both qualitative and quantitative data were used.

5.2 Descriptive analysis of the data

The standard descriptive analysis is valuable as it can detect data entry errors. This section provides a summary of the data collected in England and the Czech Republic. The survey took place between the academic years 2011/2012 and 2014/2015⁸². There were two English universities (denoted as UNIA and UNIB) and two Czech universities (denoted as UNIC and UNID) involved in this study. Table 5.1 presents the structure of the sample by the academic year, institution and level of studies. In total, there were 2,970 respondents included in the sample.

Only students who stated their nationality as British/Czech were included in the data analysis. Data from international students were collected but excluded for the purpose of this study. There were a few students in the English sample who were born abroad but settled in the UK. Those of them who stated their intention to stay in the country after graduation were included in the sample.

⁸² It should be noted that due to logistical problems it was not possible to gather the data from all institutions in each academic year.

Table 5.1 Structure of the sample

Academic year	Level of study	UNIA	UNIB	UNIC	UNID	Total
2011/2012	First year	260	121	98	0	479
	Final year	96	60	47	58	261
	Total	356	181	145	58	740
2012/2013	First year	281	73	90	0	444
	Final year	67	89	81	61	298
	Total	348	162	171	61	742
2013/2014	First year	239	82	133	0	454
	Final year	54	54	0	96	204
	Total	293	136	133	96	658
2014/2015	First year	263	0	114	189	566
	Final year	139	0	77	48	264
	Total	402	0	191	237	830
Total		1,399	479	640	452	2,970

5.2.1 Descriptive analysis of the aggregate data

The following section provides descriptive analyses of the aggregate data. The aim is to identify any differences between the countries. Consequently, the data are analysed at the national level by comparing the data between institutions within the country.

With regard to earning expectations, previous research has suggested that there is a strong gender effect. Female students tend to have lower earnings expectations. Therefore, the expected earnings might be either positively or negatively skewed in samples with a disproportionate gender distribution. At the country level, there is a stark contrast in the gender distribution. Male students were in a majority in the English sample (59.2%). On the other hand, 70% of Czech respondents were female.

Another factor that might have an effect on earnings expectations is age. In the English sample, the average age of the first year students was 19.5 years. Nearly three quarters (74.7%) of participants were 19 years old or younger. Czech first year students were older – 20.1 years on average. This difference can be easily explained. Czech students take their Maturita exam at the age of 19 and enter HE in the following year. Students in England, on the other hand, usually complete their A-levels and enter HE at the age of 18.

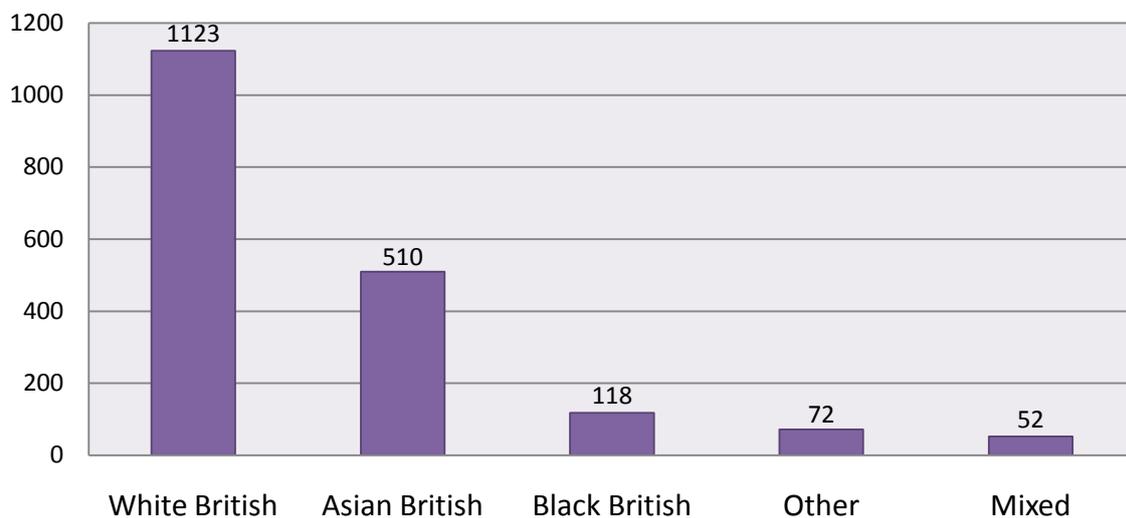
A similar age gap was observed in the final year sample – the mean age in the English sample was 22.3 years compared to 23.5 years in the Czech sample. However, it needs to

be acknowledged that the mean can be affected by outliers. In this case, the outliers are mature students present in the sample. Some previous studies have set the upper age limit for participants to exclude mature students from the research. For example, Jerrim (2011) only considered students who were under 25 as they are likely to have little pre-existing experience of the labour market. The cut-off point in the Brunello et al. (2001) study was even higher – only students over 35 were eliminated from the sample.

As was discussed in Chapter 3, mature students in full-time HE are virtually non-existent in the Czech Republic. Both the histograms and frequency tables confirmed that there were no mature students⁸³ in the Czech sample. By contrast, mature students constituted 4.6% of the English sample and the oldest participant was 46 years old. In addition, median values were calculated for the English sample because these are more robust measures of central tendency⁸⁴. The median age for first year and final year English students was 19 and 22, respectively. Thus, the effect of outliers (i.e. mature students) on the average age was minimal.

Another variable under investigation is students' ethnicity. The ethnic composition of the English sample can be found in Figure 5.1.

Figure 5.1 Students' ethnicity: English sample



83 Using Jerrim's definition of mature students – i.e. 25 years or older when entering HE.

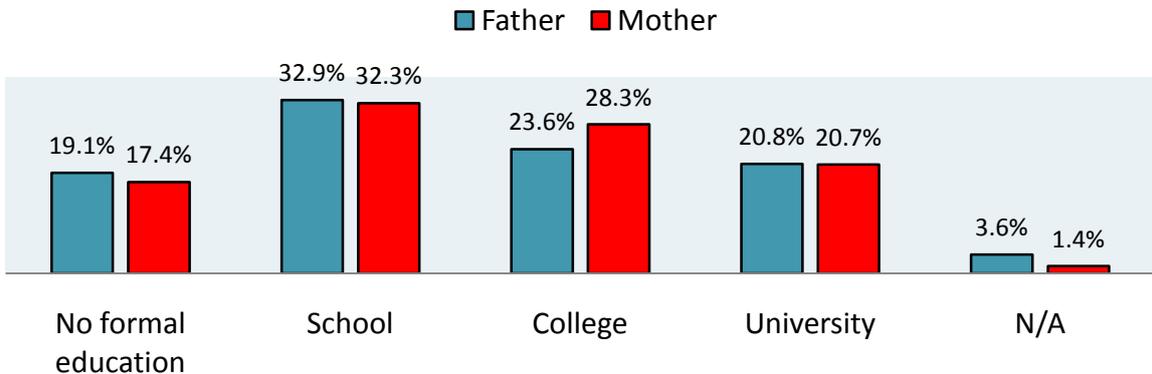
84 Central tendency is a statistical measure that identifies a single value as the most representative of the collected data (Field, 2013); it can be measured by mode (the most frequently occurring score in a set of data), mean (the average of all scores in a set of data), or median (the middle score of a set of ordered observations).

As one can see from the graph white British students represented the majority of the sample (59.8%). Nonetheless, there was a high proportion of ethnic minority students. More than a quarter of participants (27.2%) identified themselves as Asian British. There are two possible explanations for this finding. Firstly, both UNIA and UNIB are situated in ethnically diverse urban areas. Secondly, the sample was collected at Business schools which offer a number of vocational courses that are popular with Asian students.

While ethnicity seems to be an important factor in the English sample there was no need to analyse the ethnicity in the Czech sample. The Czech Republic is relatively homogenous in terms of ethnicity and language. Apart from a few students from Slovakia⁸⁵ there were no other ethnicities/nationalities present in the sample.

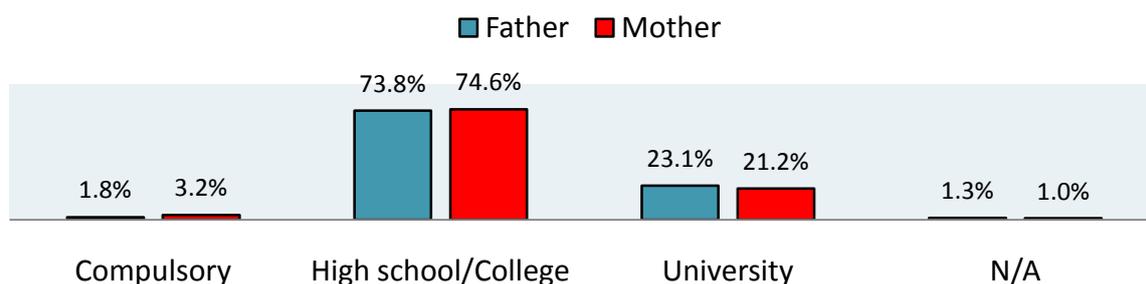
In this study, parental education and income were used as a proxy for students' social and economic capital. Figures 5.2 and 5.3 below provide information on students' parents' highest level of education. There were more fathers who had a university degree than mothers. In the Czech sample, 23.1% of fathers had a university degree compared with 21.2% of mothers. The difference was negligible in the English sample where 20.8% of fathers and 20.7% of mothers were university graduates. Looking at the other side of the education spectrum nearly one fifth of parents (19.1% of fathers and 17.4% of mothers) in the English sample had no formal education at all. This is in sharp contrast with the Czech sample where only a small proportion of parents (1.8% of fathers and 3.2% of mothers) did not continue their studies after completing compulsory education.

Figure 5.2 Parental level of education: English sample



85 Only those who intended to stay in the Czech Republic after graduation were included in the study.

Figure 5.3 Parental level of Education: Czech sample



Although little is known about how students form their earnings expectations, it is hypothesised that students use their parents' income as a benchmark for their expectations. In this study, students were asked to estimate their mother's and father's salary separately. In the English sample, the annual earnings are expressed in Pounds Sterling (GBP). The currency used in the Czech questionnaire is Czech Koruna (CZK) and parental income is reported per month which is the norm in this country.

Rather than providing a precise figure students chose from the predetermined set of income intervals. This was to improve the response rate as some students might not know the exact income. Nevertheless, 21.1% of respondents in the English sample chose the option "N/A" which was intended for students whose parents were deceased, retired, or unemployed. However, this answer was also chosen by those students who did not know their parents' income and those who were not willing to disclose it. Nevertheless, since students did not specify their reasons for choosing the "N/A" option, it is not possible to determine the "true" response rate. Concerning mother's level of income the possible non-response rate was even higher since 25.2% students chose the "N/A" option⁸⁶. By contrast, only 8.9% and 6.0% of Czech respondents chose the "N/A" option for father's and mother's level of income, respectively.

In both countries, fathers earned more on average than mothers. This is not surprising given the existing gender pay gap and the fact that women are more likely to work part-time (Eurostat, 2016; Powell and Mor, 2017). The majority of fathers (67.5%) in the English sample earned £20,000 or more. By contrast, 61.2% of mothers had an income of £20,000 or less. A similar pattern was observed in the Czech sample where 68.5% of fathers had an income of 20,000 CZK or more and 57.1% of mothers earned below 20,000 CZK. The distribution of parental income is summarised in Figures 5.4 and 5.5.

⁸⁶ Nevertheless, one has to bear in mind that women are more likely to look after family and be economically inactive. In the UK the economic inactivity for women aged 16 to 64 is 26.6% (Powell and Mor, 2017).

Figure 5.4 Parental income: English sample

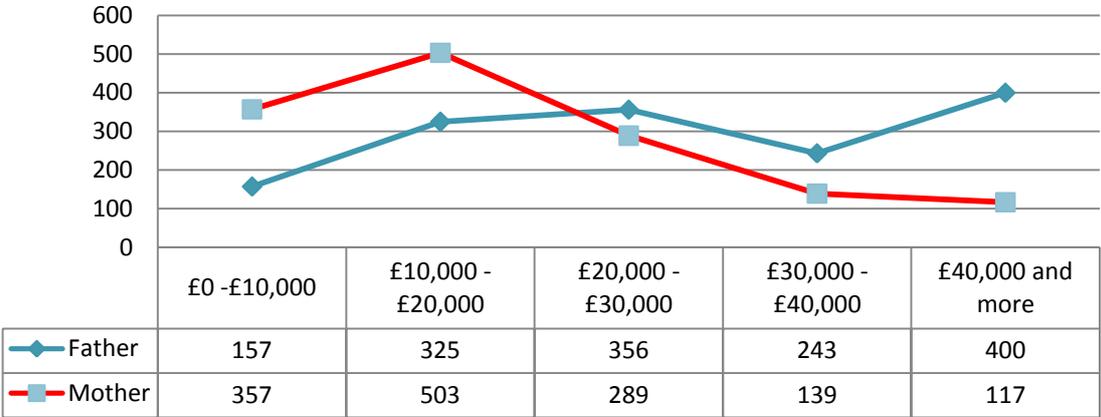
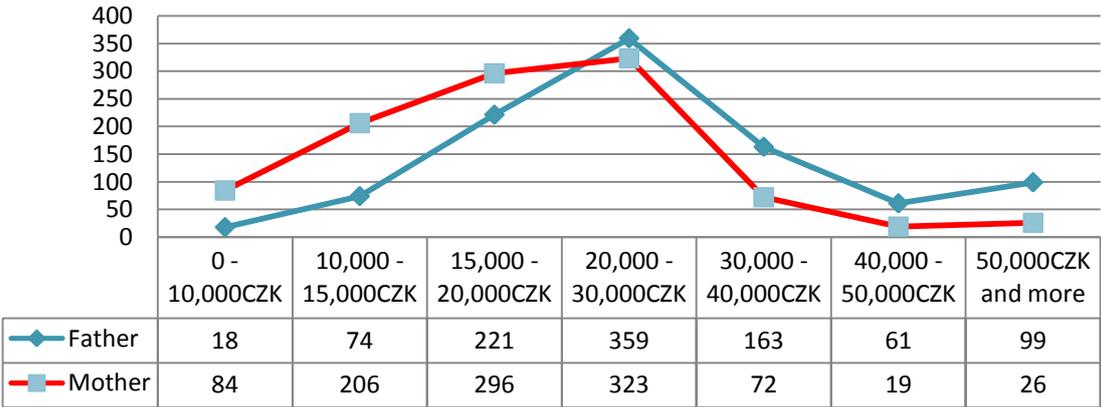


Figure 5.5 Parental income: Czech sample



There are a number of factors that determine graduate salary. One of them is the location of a graduate job. In this survey, students were asked where they intended to work after graduation. Their answers were grouped into five categories: home region, the region of study, the capital (London/Prague)⁸⁷, elsewhere in the UK/Czech Republic and abroad. For first year students, there was also an option “I don’t know/I don’t care”.

In both countries, a majority of final year students planned to work in their home region (Figures 5.7 and 5.9). By contrast, the first year students were more willing to relocate after graduation. Working abroad was a particularly popular option which had been chosen by

87 Those students who stated London/Prague as their home region were grouped under the “home region” category rather than the “capital” category.

16% of Czech and 20% of English first year students. As Figures 5.6 and 5.8 show, first year students were also more likely to consider the capital as their graduate job destination. Nearly one third (32%) of Czech first year students chose Prague as their preferred destination.

Figure 5.6 Graduate job destination: English sample (first year students)

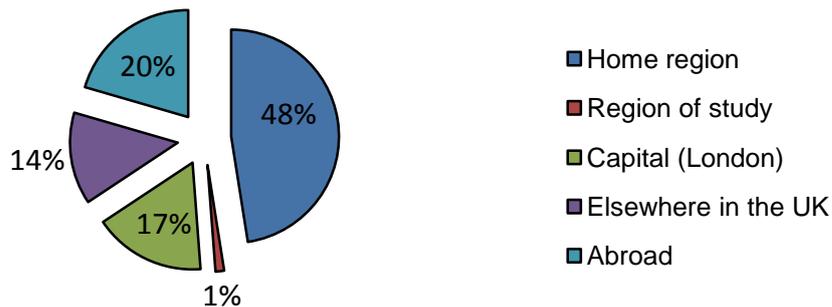


Figure 5.7 Graduate job destination: English sample (final year students)

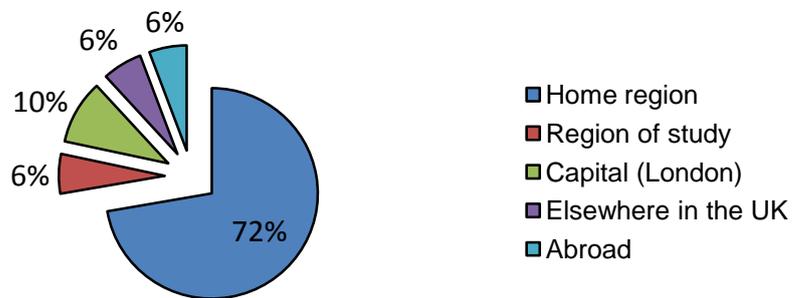


Figure 5.8 Graduate job destination: Czech sample (first year students)

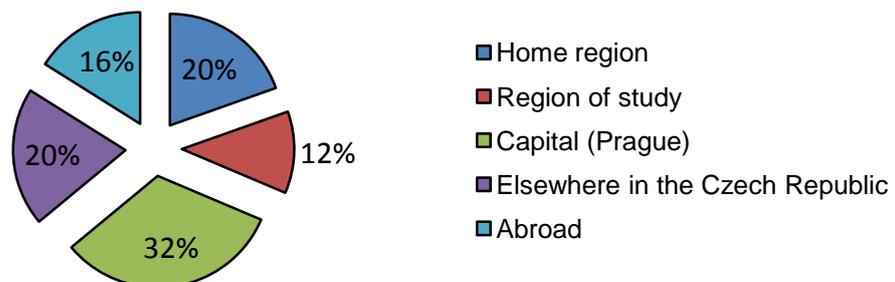
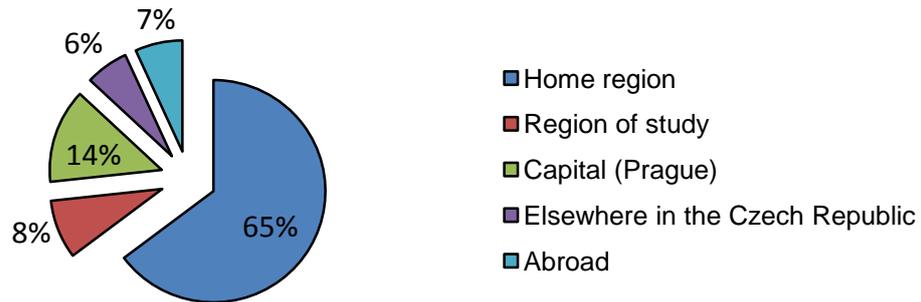


Figure 5.9 Graduate job destination: Czech sample (final year students)



The focus of this study is on students' earnings expectations after graduation. However, it should be noted that not all students expect to be in a graduate job instantly after completing their studies. Final year students were asked what they expect to do six months after graduation⁸⁸. There were a number of options provided including graduate job employment, non-graduate job employment, self-employment, unemployment and further studies. Some students had different plans including maternity leave, joining the army and travelling. It should be noted again at this point that there is no official definition of a graduate job. In this study, graduate job is defined as a position which requires applicants to have a degree.

It seems that English students are more optimistic about their graduate labour market prospects. While more than two thirds (67.4%) of English students believed they would be in a graduate job six months after graduation only 37.4% of Czech respondents shared the same belief (Figures 5.10 and 5.11). More students in the Czech sample also expected to be unemployed after graduation (13.2% compared to 3% in the English sample). On the other hand, Czech students were slightly more interested in self-employment (4.9% compared to 3.9%). As can be seen from Figures 5.8 further studies were more popular amongst English respondents. Nevertheless, this can be easily explained by the fact that the final year students in the Czech sample were completing their Master degree while English students were enrolled in a Bachelor program.

⁸⁸ The rationale for choosing the period of six months is to make the results comparable with the Destinations of Leavers from Higher Education survey which asks graduates in the UK what they are doing six months after graduation.

Figure 5.10 Plans after graduation: English sample (final year students)

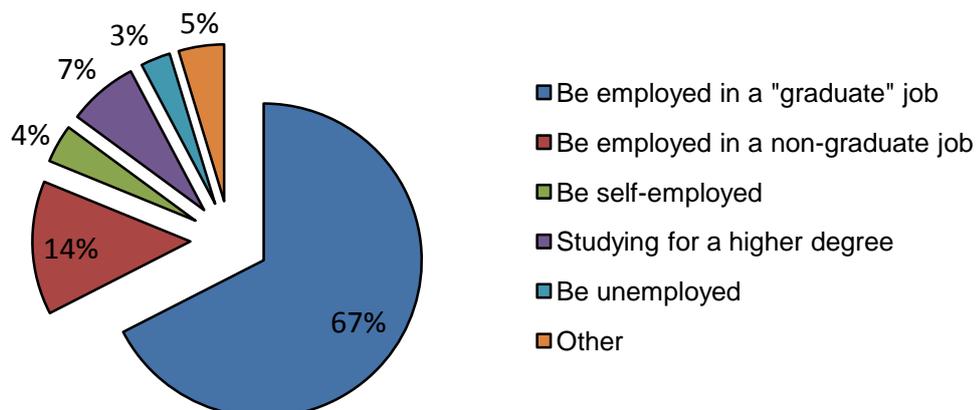
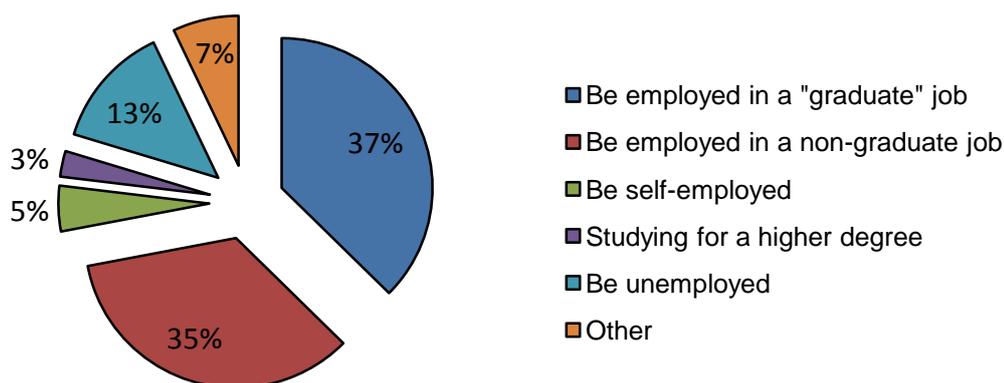


Figure 5.11 Plans after graduation: Czech sample (final year students)



The final variable that is examined in this section is students' work experience (both casual and supervised work experience). Czech students who participated in this research were more likely to work during their studies. While 68% of Czech respondents had a part-time job at the time of the survey only 47.7% of their English counterparts were working. It should be pointed out that information on work experience was not collected from first year Czech students⁸⁹. This could possibly bias the results because a higher percentage of final year students in the English sample had a job during their studies (59.6% compared to 42.7% of first year students).

⁸⁹ The question on part-time job was not included in the Czech version of the questionnaire for first year students because one of the participating universities wished to keep the original version of the questionnaire that had been used prior to this study.

To summarise this section, several factors that might have an influence on students' earnings expectations were discussed and descriptive data analysis was carried out to find any differences between the countries. The analysis revealed an unequal gender distribution – the Czech sample was dominated by female students while male students were a majority in the English sample. Czech students were slightly older on average because the “college” leaving age is higher in the Czech Republic. Czech students were also more willing to relocate after graduation and were more likely to have a part-time job during their studies. Nevertheless, despite their greater mobility and work experience they were less optimistic about finding a graduate job.

The following section provides a descriptive analysis of the explanatory variables for each surveyed institution. Data were collected at two institutions in each country. The aim of this section is to identify any differences between institutions within the country. The two English institutions are denoted as UNIA and UNIB. The Czech institutions are labelled as UNIC and UNID.

In addition to the variables discussed in the previous section, supervised work experience and expected academic achievement (i.e. final grade) were added to the descriptive analysis of the English sample. These two variables are not relevant within the Czech context. However, there were some Czech students in the sample who participated in student exchange programmes (e.g. Erasmus). Therefore, another variable “study abroad” was included in the analysis of the Czech data. It should also be noted that information on supervised work experience and study abroad could only be collected from final year students. It was also deemed counterproductive to ask first year students who had just started their courses about their expected final grade since some of them did not know how the degree classification system worked⁹⁰.

5.2.2 Descriptive analysis of the English data

The data for this study were collected from the Business School students at two post-1992 universities in England. UNIA is situated in the Yorkshire region and UNIB is located in the West Midlands. UNIA is larger with over 25,000 students, UNIB has over 15,000 students. For UNIA the entry standards (i.e. the average UCAS tariff score of new undergraduate students) is 334, for UNIB the standards are lower at 288. In terms of university rankings, in 2011 the universities occupied a similar position in league tables. Nevertheless, the gap

⁹⁰ As noted earlier, data were collected from both English-domiciled and international students who were unlikely to be familiar with the UK classification system at the beginning of their studies.

between these institutions has been increasing over the years - in 2014 UNIA was classified as a middle-tier university while UNIB became a lower-ranked institution.

The first variable of interest is gender. As was revealed earlier, male students formed the majority in the English sample. UNIB had a more equal gender ratio with 53.4% of male students. The proportion of men at UNIA was higher at 61.2%.

Another factor explored in this study is students' ethnicity. It should be noted that both UNIA and UNIB are situated in some of the most ethnically diverse areas of England. Therefore, the high proportion of ethnic minority students (especially Asian British) in the sample is in line with the regions' demographic profiles. White British students were a majority at both UNIA and UNIB with 58.9% and 62.4% respectively. The second largest group were Asian British students who represented nearly one third (30.5%) of the sample at UNIA followed by black British students (5%). The ranking was same at UNIB; however, there were less Asian British students (17.5%) and more black British students (10%). The number of students who identified themselves as "mixed" or "other" was negligible in both samples.

Parental income and education have been used to determine students' socio-economic status. At UNIB fathers had higher levels of education as 51.2% of them had completed at least college compared with 46.6% of mothers. By contrast, mothers at UNIA achieved higher levels of education – 45.3% of mothers were educated to college level or above compared to 41.2% of fathers. From the figures above it can be concluded that parents at UNIB were more educated on average. The differences in parental education between UNIA and UNIB were statistically significant at $p = .002$ (father's level of education) and $p = .000$ (mother's level of education).

Turning now to parental income, mothers earned less on average than fathers in both samples. More fathers in the UNIB sample had an annual income of £30,000 or higher compared to the UNIA sample (42.9% vs. 44.9%). There were also more high-earners amongst mothers at UNIB (21.1% compared to 17.2% at UNIA). In the UNIA sample, 28.5% of students estimated their mother's income to be less than £10,000 per annum. On the other hand, only 16.8% of students at UNIB placed their mother's income at the bottom end of the income distribution.

There are several possible explanations for the higher parental income at UNIB. Firstly the difference could be due to regional variances. According to the data provided by the Office for National Statistics (2014a), the average earnings in the region where UNIB is situated were £392 per week. By contrast, the average weekly earnings in the region where UNIA is located were only £338. Another explanation is linked to parental education. In general,

higher levels of educations are associated with higher earnings. It was discussed above that parents at UNIB achieved higher levels of education which in turn could be the reason for their higher income. Finally, parental earnings can be related to ethnicity. There was a higher proportion of Asian British students (including Bangladeshi, Pakistani and Indian students) in the UNIA sample. It is known that Bangladeshi and Pakistani ethnic groups have a higher incidence of unemployment and also a higher prevalence of part-time working (Nazroo and Kapadia, 2013).

However, it should be noted that this question had the highest non-response rate ranging from 20.9% (UNIA/father's salary) to 26% (UNIA/mother's salary). Furthermore, one has to bear in mind that some students did not know their parents' earnings and their estimates did not necessarily reflect actual parental income.

Students' earnings expectations might be influenced by their views of the labour market situation. Those who are not confident about finding a graduate position immediately after graduation might have lower earnings expectations. Students were asked what they expected to do six months after graduation.

There were no major differences in expectations between UNIA and UNIB samples. Around two thirds of final year students expected to be in a graduate job six months after graduation (68% of respondents at UNIA and 66.5% of respondents at UNIB). Less than one fifth of students expected to be either unemployed or working in non-graduate level jobs (16.3% of respondents at UNIA and 17.7% of respondents at UNIB). The number of students considering postgraduate studies (including MA, MSc, PhD and PGCE) was rather low – 6.2% at UNIA and 8.9% at UNIB. A full summary is provided in Table 5.2.

Table 5.2 Plans after graduation (English sample)

What do you expect to do 6 months after graduation?	UNIA	UNIB
Be employed in a "graduate" job	68.0%	66.5%
Be employed in a non-graduate job	13.5%	14.3%
Be self-employed	4.2%	3.4%
Studying for a higher degree	5.6%	5.9%
Studying for a teaching qualification	0.6%	3.0%
Be unemployed/looking for job	2.8%	3.4%
Other	5.3%	3.4%

It was revealed in the previous section that English students in the sample were less geographically mobile than their Czech peers. However, there were no significant differences between UNIA and UNIB in terms of graduate job destination. Nearly half of students intended to stay within their home region after graduation (44.2% of respondents at UNIA and 47.2% of respondents at UNIB). The second most popular option was working abroad (11.2% of respondents at UNIA and 13.8% of respondents at UNIB) followed by working in London (11.1% of respondents at UNIA and 11.7% of respondents at UNIB).

A study by Connor et al. (2004) revealed that ethnic minority students were more inclined to search for graduate jobs locally in comparison with their white peers. Nevertheless, this tendency of ethnic minority students to stay within their home region after graduation was not present in the sample as 46.5% of Asian British students stated home region as their preferred choice compared to 46.1% of white British students.

In a competitive graduate labour market, work experience is one of the soft credentials that might give a graduate positional advantage. Within the English sample, two types of work experience were distinguished. One is casual work experience during studies and the other is supervised work experience undertaken as a part of an undergraduate degree.

When considering the casual work experience there were more working students at UNIB compared to UNIA (55.3% and 45.1% respectively). On the other hand, the number of students who undertook a sandwich year was significantly higher at UNIA (39.9% compared to 14.8% at UNIB)⁹¹. The likelihood of undertaking supervised work experience was also determined by ethnicity. Overall white British students had a better chance of doing a placement year (37.9%) compared to students of black British or Asian British origin (11.5% and 16.5% respectively). Furthermore, more female students (32.9%) undertook a year in industry than male students (28.9%).

The final variable investigated in this section is students' expected academic achievement. Final year students were asked what final grade they expected to obtain. It was also intended to examine the effect of the number of UCAS points on earnings expectations; however, many students did not remember this information and there were also some non-traditional students whose qualifications were not covered in the UCAS system. Since the low response rate could distort the research results the information on UCAS score was not included in any further analysis.

⁹¹ Both UNIA and UNIB Business Schools offer the opportunity to complete a supervised work placement, after completing Year 2.

In the English sample, the majority of final year students (63.7%) expected to obtain an upper-second class followed by a first class (23.8%) and lower-second class (11.3%). Only 7 students (1.3%) stated third class as expected grade. It has been documented that female students outperform their male counterparts (HESA, 2015). In the sample, 89.1% of female respondents expected to achieve a “good” degree⁹² compared with 86% of male respondents. With regard to students’ cultural background, there were more white British students expecting a first class (24.2%) compared to Asian British students (19.8%). Nevertheless, in terms of expecting a “good” degree, there was little difference between these two groups (88.9% of white British respondents compared to 86.8% of Asian British respondents). Other ethnic groups (black British, mixed and ‘other’) were not included in this analysis due to the small number of students in the sample.

Comparing the two universities in the sample, there was little difference in terms of expecting a “good” degree (89.3% of respondents at UNIA vs. 84.2% at UNIB). Nevertheless, these expectations are in conflict with reality. The proportion of graduates who achieve a “good” degree at UNIA and UNIB is 70.9% and 65.8%, respectively⁹³. In addition, more students at UNIA (28.7%) expected to achieve a first class degree compared to UNIB (15.3%). This could possibly be explained by a larger proportion of students who undertook a supervised work experience at UNIA. The positive link between participation in supervised work experience and academic performance in the final year was noted in the literature review. In this study, over one third of students (35.5%) who did a placement year expected to obtain a first class. The proportion of students expecting a first was notably lower (18.6%) amongst those who pursued a standard three year course.

5.2.3 Descriptive analysis of the Czech data

In the Czech Republic, the data were collected at two Faculties of Economics. UNIC is a technically-oriented public university located in northern Bohemia. The Faculty of Economics at UNIC is the only one within the region and has around 1500 students. UNID is also a public university specialising in technical and economic subjects. The Faculty is situated in the Moravian-Silesian region in the north-eastern part of the country and with nearly 5000 students it is one of the largest Faculties of Economics. In terms of their prestige, UNIC and UNID occupy a similar position in the Czech university league tables.

⁹² Good degree = at least upper second class

⁹³ These figures are based on data from the HESA for 2015/2016. The internal data for Business school at UNIA shows that in the academic year 2015/2016 the proportion of home students who achieved at least upper-second class was 70.2% (this includes Law students who were not part of this study).

When analysing aggregate data it was revealed that the gender distribution is uneven, with female students being a majority. At UNID female students represented 66.2% of the sample. The proportion of women at UNIC was even higher at 72.7%.

Turning now to students' socio-economic background, more fathers were educated to a degree level than mothers although the difference was small. The distribution of parental education (divided into compulsory, high school/college and university) at UNIC and UNID was nearly identical for both mothers and fathers.

With regard to parental income, parents of respondents studying at UNIC had higher income, especially mothers. While only 5.4% of mothers at UNIC had an income of 10,000 CZK or less the proportion of mothers in the lowest income bracket (0 – 10,000 CZK) was 12.3% at UNID. There were also more fathers on a lower income at UNID – 34.2% had an income of 20,000 CZK or less compared to 29.6% at UNIC.

These differences between institutions cannot be explained by parental education nor can they be attributed to regional differences. The two regions have nearly the same average monthly earnings (ČeSU, 2015). However, the unemployment figures are higher in the latter region which in turn could possibly explain the higher proportion of parental income in the 0 – 10,000 CZK bracket. Finally, one has to keep in mind that this question had a lower response rate and some students may not have provided accurate estimations of parental income.

It was noted earlier that final year Czech students were less optimistic about finding a graduate job. There was little difference between institutions – 39.9% of respondents at UNID expected to be in a graduate job six months after graduation compared to 34.1% at UNIC. With regard to the location of the graduate job, working in the home region was the most popular option at both universities (34.2% at UNIC and 45.6% at UNID). The capital (Prague) was the first choice for 28.1% of respondents at UNIC and 19.2% of respondents at UNID. The higher proportion of students at UNIC planning to work in Prague might be due to geographic location as it is feasible to commute from northern Bohemia to Prague on a daily basis. On the other hand, students at UNID were more likely to consider working abroad (15% at UNID vs. 10% at UNIC).

Turning now to work experience, Czech students were more likely to work during their studies than their English peers. More respondents at UNID were employed (71.1% compared to 63.9% at UNIC). However, students at UNIC were more likely to have a job “relevant to their course” (28.3% vs. 18.6% at UNID).

The final variable of interest is study abroad which is another soft credential sought by graduate employers. As mentioned earlier this variable was not included in the English version of the questionnaire as the number of outgoing students at both UNIA and UNIB is negligible. Within the Czech sample, there were 48 final year students who spent part of their studies abroad. There was a considerable difference between institutions in terms of participation – students at UNIC were nearly three times more likely to study abroad than their counterparts at UNID (16.1% and 5.7% respectively). Moreover, parental income and education had an effect on students' likelihood to study abroad. This is summarised in Table 5.3.

Table 5.3 Socio-economic background and study abroad (Czech final year students)

Student studied abroad	Yes (%)	No (%)
Father's level of income:		
Low/Medium (less than 40,000 CZK/month)	12.3%	87.7%
High (more than 40,000 CZK/month)	30.0%	70.0%
Mother's level of income:		
Low/Medium (less than 40,000 CZK/month)	9.5%	90.5%
High (more than 40,000 CZK/month)	21.4%	78.6%
Father's level of education:		
Compulsory/High School/College	7.7%	92.3%
University	18.1%	81.9%
Mother's level of education		
Compulsory/High School/College	9.6%	90.4%
University	14.9%	85.1%

5.2.4 Summary

This section provided the descriptive analysis of the data at the institutional level. The goal was to uncover any differences within a country. While some contrasting results were obtained when comparing Czech and English samples in section 5.3.1, not many differences were discovered between universities within the same country. In terms of the gender of the respondents, there was very little difference between UNIA and UNIB. The ethnic composition was similar - white British students formed the majority at both UNIA and UNIB, followed by Asian British students.

With regards to socio-economic background, parents of students at UNIB tended to have higher levels of education and higher earnings. Respondents at UNIA and UNIB had similar

expectations of graduate labour market prospects and their expected graduate job destinations were very similar. One remarkable difference between UNIA and UNIB is the proportion of students who undertook supervised work experience (39.9% and 14.8% respectively). This can possibly explain the higher number of students at UNIA who expected to achieve a first class honours degree.

There was no notable difference between UNIC and UNID with regard to gender. While the parental education was similar, students at UNID reported lower parental income which could be due to regional pay disparities. A higher proportion of students at UNIC considered working in Prague after graduation probably due to the region's proximity to the capital. The most contrasting result was the number of students who studied abroad – the participation rate at UNIC was 16.1% compared with 5.7% at UNID.

5.3 Analysis of students' labour market expectations

In the literature review, numerous factors influencing wage expectations were identified. They were broadly divided into four categories: students' personal characteristics, education, work experience and regional/national labour market situation. In order to explore the possible impact of these factors on students' expectations, 19 research questions were formulated and presented in Chapter 3. This sub-chapter begins with a brief table that summarises students' earnings expectations in both countries.

In the labour market, there is a tendency for nominal wages/salaries to grow over time. In the UK the minimum wage is adjusted every year to keep earnings in line with inflation. The respective rates for each year are summarised in Table 5.4. In 2015, the gross median earnings for full-time employees were £27,600 (Office for National Statistics, 2015). In the Czech Republic, the gross median earnings reached 21,143 CZK per month in 2015 (ČeSU, 2015). Unlike the minimum wage in the UK the Czech minimum wage has increased only twice since 2007 and it is currently 9,200 CZK/month.

Taking the minimum wage laws into account, one would expect that all students would put the respective minimum wage rate as a lowest possible earnings in all scenarios. Within the English sample, two different rates were considered. Based on information provided in the previous sub-chapter the "over 21" rate is applicable for most final year students. For first year students, the "18 – 20" rate should be considered for the MEWD scenario because their average age was 19.5 years when they started their courses. On the other hand, the higher rate is more appropriate for the MEAG, MEAG10 and MEWD10 scenarios since

students will be over 21 by then. In the Czech Republic, the minimum wage is not differentiated according to workers' ages.

Table 5.4 Development of the minimum wage in the UK

Year	Aged 21+ (hourly rate)	Aged 21+ (annual rate)	Aged 18 – 20 (hourly rate)	Aged 18 – 20 (annual rate)
2011	£6.08	£12,646 p.a.	£4.98	£10,358 p.a.
2012	£6.19	£12,875 p.a.	£4.98	£10,358 p.a.
2013	£6.31	£13,125 p.a.	£5.03	£10,462 p.a.
2014	£6.50	£13,520 p.a.	£5.13	£10,670 p.a.
2015	£6.70	£13,936 p.a.	£5.30	£11,024 p.a.

Adapted from GOV.UK (2015)

In both the Czech and English samples, there were students who expected to earn less than the national minimum wage rate. One possible explanation is that some students have no work experience and therefore do not know the minimum wage rate. Alternatively, one could assume that the lowest possible expectation is the minimum salary for which students would be willing to work. Finally, some students might expect to work on a part-time basis and that would, in turn, lower their expectations.

Figure 5.12 further shows that earnings expectations of English students dropped in the academic year 2012/2013 and there was a slightly increasing trend from the following academic year. Nevertheless, for two scenarios (namely MEAG10 and MEWD10), the highest average expectations were reported in the academic year 2011/2012. The values in two remaining scenarios (MEAG and MEWD) peaked in the academic year 2014/2015; however, the increase over the four years was minuscule. Looking at the earnings expectations of Czech students (Figure 5.13) a similar pattern to the English sample was observed. Expectations fell slightly in the academic year 2012/2013 and since that there has been a modest increase. For the MEAG and MEAG10 scenarios, the first cohort of students included in this study had the highest earnings expectations⁹⁴.

⁹⁴ The differences in earnings expectations based on the academic year were not found to be statistically significant in the Czech sample. There was a significant difference in mean expected earnings of English students; however, the variable "academic year" could explain only up to 1.7% of the variability in students' expectations (Appendix 5.1).

Figure 5.12: Academic year and earnings expectations: English sample

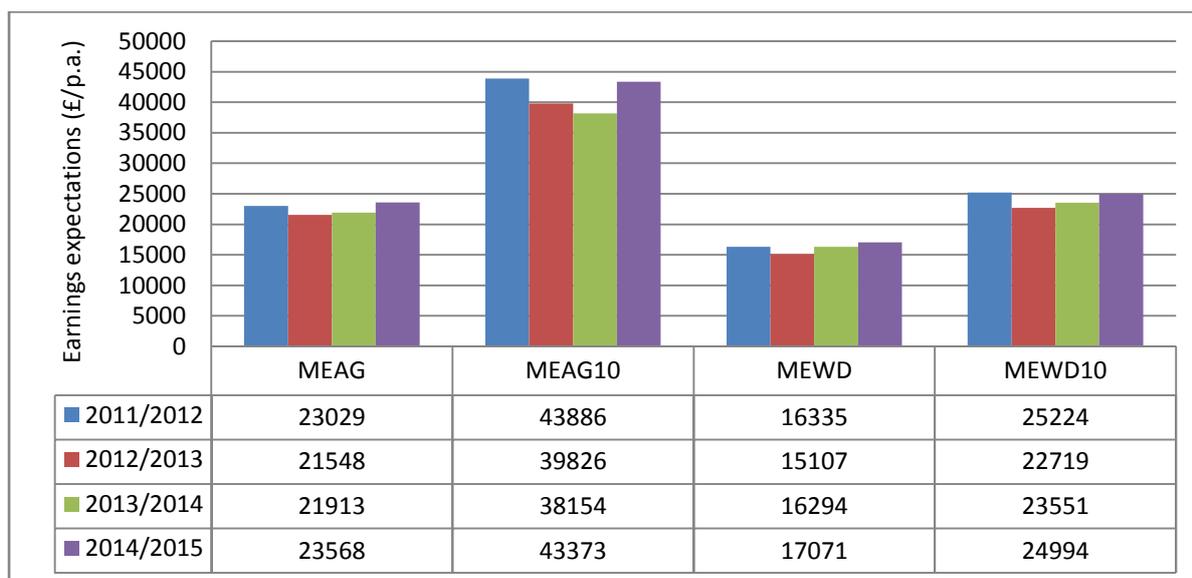
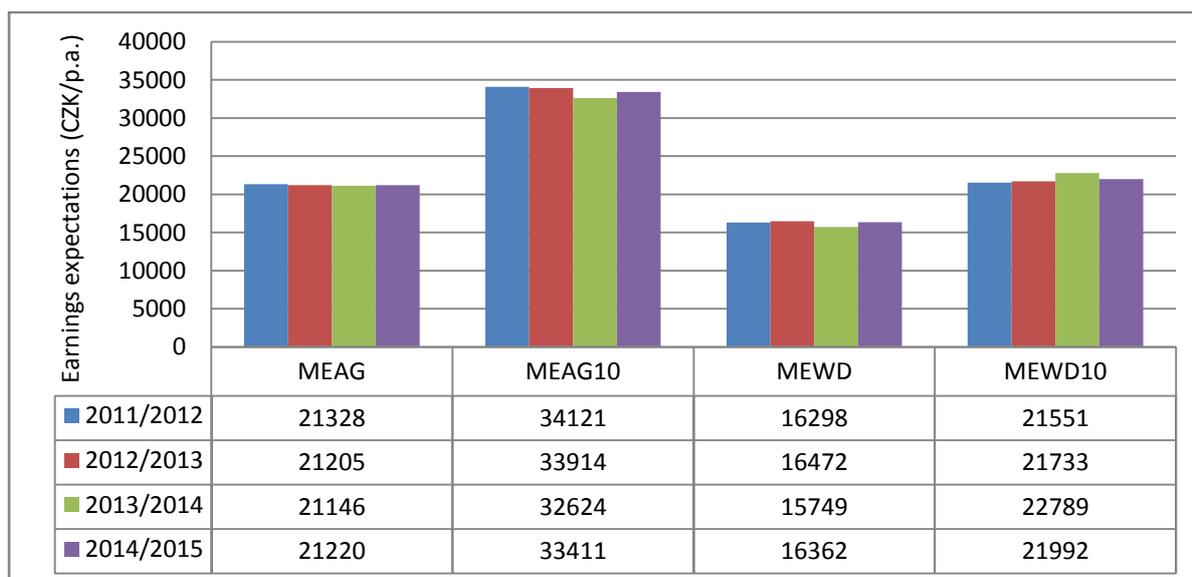


Figure 5.13: Academic year and earnings expectations: Czech sample



It is noteworthy that students in the English sample did not expect to reach the national median earnings (i.e. £27,600 p.a. for the tax year 2014/2015) immediately after graduation. Czech students, on the other hand, expected their starting graduate earnings to be higher than the national median earnings (i.e. 21,143 CZK/month for the calendar year 2015). However, no such difference is apparent in expectations 10 years after graduation. In this scenario both Czech and English students expected their earnings to be above the 75th

percentile point which was 31,627 CZK/month⁹⁵ in the Czech Republic and £33,900 p.a.⁹⁶ in the UK (Ministerstvo Práce a Sociálních Věcí, 2016; HM Revenue & Customs, 2016).

Both English and Czech students valued ten years work experience more than a degree. In both samples, students' earnings expectations were higher for the MEWD10 scenario compared to the MEAG scenario. The difference was more noticeable in the English sample. While this study does not seek to calculate the actual rate of returns to HE the tentative conclusion would be that Czech students perceive university education to be more valuable in the labour market, at least in terms of future earnings.

5.3.1 Students' personal characteristics and labour market expectations (Group A)

This section is dedicated to students' personal characteristics including gender, students' seniority (i.e. proximity to graduation), ethnicity, parental income and parental education. To analyse the impact of these independent variables, mainly quantitative data from questionnaires were used. Null and alternative hypotheses were stated for each research question below. Where appropriate, students' comments obtained during focus groups were added in order to provide a complete picture of the issues being addressed.

Multiple regression was conducted separately for the MEAG and MEAG10 scenarios⁹⁷. Earnings expectations of Czech students were converted into GBP. As mentioned above, questionnaires were collected from 2011/2012 to 2014/2015; therefore, a different exchange rate was used for each year. The average exchange rates are summarised in Table 5.5. Furthermore, it was necessary to convert the earnings expectations of Czech students, that were expressed per month, into annual earnings.

Table 5.5 Yearly Average Exchange Rates: GBP/CZK (Source: OFX, 2017)

Year	Average Exchange Rate (GBP/CZK)
2011	28.34
2012	31.00
2013	30.60
2014	34.16

95 For the tax year 2015 (the tax year in the Czech Republic runs from 1st January to 31st December)

96 For the tax year 2013/2014 (data for tax year 2014/2015 were not available)

97 Data for MEWD and MEWD10 scenarios were only collected from first year students. Thus, it would not be possible to analyse the difference in earnings expectations between first year and final year students for these two scenarios. Moreover, it would not be possible to include some variables of interest into the regression model (e.g. supervised work placement, plans after graduation or expected final grade) since these were only collected from final year students).

The full results from multiple regression analysis can be found in Appendix 5.2 (MEAG scenario), and Appendix 5.3 (MEAG10 scenario).

RQ1A: Is there a significant difference in earnings expectations for male and female students?

(Null hypothesis: There is no significant difference between male and female students in their earnings expectations)

(Alternative hypothesis: There is a significant difference between male and female students in their earnings expectations)

Section 5.2.1 revealed the unequal gender distribution between the two countries. While the majority of students in the English sample were men, the Czech sample was dominated by women. Chapter 3 has highlighted the gender effect on earnings expectations. Previous research has shown that male students tend to have higher earnings expectations compared to female students. In this study, both Czech and English male students had higher earnings expectations in all four scenarios, which can be seen in Figures 5.12 and 5.13. The most pronounced difference was found in the MEAG10 scenario where English and Czech male students expected to earn 16.4% and 24.7% more, respectively. By contrast, gender differences were negligible in the MEWD scenario.

Figure 5.14 Gender and earnings expectations: English sample

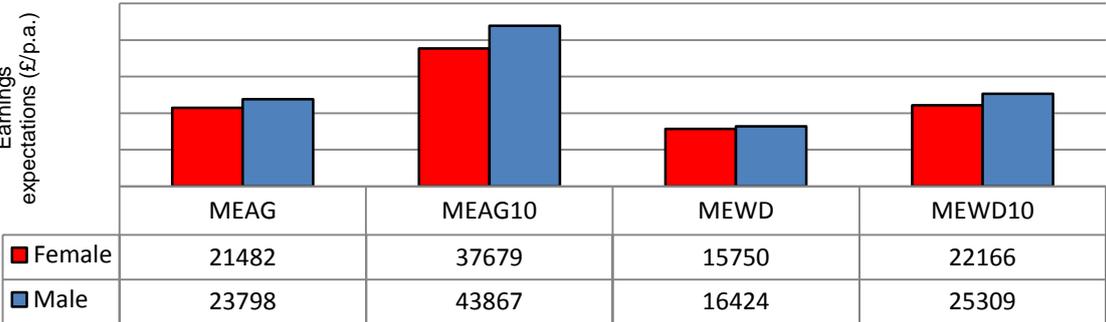


Figure 5.15 Gender and earnings expectations: Czech sample



Gender was included in a multiple regression analysis as an independent variable. A statistically significant relationship between gender and students' earnings expectations was found for both the MEAG and MEAG10 scenarios. In other words, the null hypothesis could be rejected. This is summarised in Table 5.6 which includes both an unstandardised regression coefficient (b) and a standardised regression coefficient (β). The β coefficient values for gender were the second largest in both the MEAG and MEAG10 scenarios, which means that this predictor made the second strongest unique contribution to explaining students' earnings expectations⁹⁸.

Table 5.6 Regression coefficients: Gender (MEAG/MEAG10 scenarios)

Gender	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG	-1879.45	329.44	-.113	.000	-2525.42	-1233.48
MEAG10	-5731.46	858.92	-.158	.000	-7415.61	-4047.32

Moreover, to test whether the difference was statistically significant between England and the Czech Republic, I included the interaction term in the regression model. The interaction variable was labelled "Gender X Country" and the results are presented in Table 5.7.

Table 5.7 Regression coefficients: Gender X Country (MEAG/MEAG10 scenarios)

GenderXCountry	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG	562.20	439.74	.029	.201	-300.04	1424.45
MEAG10	2766.28	1146.48	.066	.016	518.28	5014.28

98 The β coefficient values for all independent variables can be found in Appendix 5.2 and 5.3.

The interaction effect was found to be statistically significant for the MEAG10 scenario. This implies that the difference in earnings expectations between male and female students was statistically significant across the two countries. The b value was positive which suggests that the effect of gender on earnings expectations gets larger as country increases [i.e. change from 0 (England) to 1 (Czech Republic)]. In other words, the relationship between gender and earnings expectations was stronger in the Czech sample than in the English sample. For the MEAG scenario, the gender difference in earnings expectations was not different across the countries.

Furthermore, I conducted point-biserial correlations to calculate the point-biserial correlation coefficient (r_{pb}) and the coefficient of determination ($R^2 = (r_{pb})^2$) to quantify the relationship between gender and students' earnings expectations. Table 5.8 provides a summary of point-biserial correlation where the coefficients of determination (R^2) are highlighted in red.

Table 5.8 Point-biserial correlations/Gender: English sample

		Gender	MEAG	MEAG10	MEWD	MEWD10
Gender	r_{pb}	1	.129**	.165**	.054	.155**
	R^2		.017	.027	.003	.024
	Sig. (2-tailed)		.000	.000	.020	.000
	N	1878	1878	1878	1878	1319

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Gender accounts for 2.7% and 2.4% of the variability in earnings expectations in MEAG10 and MEWD10 scenarios, respectively. The effect was even smaller for the MEAG scenario and, in the case of the MEWD scenario, gender explained less than 1% of the variability in earnings expectations.

The same analysis was applied to the earnings expectations of Czech students. Again a summary is provided in Table 5.9. At first glance, it is obvious from coefficients of determination that in the Czech sample gender had more explanatory power. Gender helped to explain 7.6% of the variance in the MEAG10 scenario and 5.8% of the variance in the MEAG scenario. Nevertheless, using Cohen's (1988, 1992) criteria, which are presented in Table 5.10, it can be concluded that the relationship between gender and earnings expectations was weak ($r < .30$), but consistent, in all scenarios in both countries.

Table 5.9 Point-biserial correlations/Gender: Czech sample

		Gender	MEAG	MEAG10	MEWD	MEWD10
Gender	r_{pb}	1	.240**	.276**	.174**	.228**
	R^2		.058	.076	.030	.051
	Sig. (2-tailed)		.000	.000	.000	.000
	N	1092	1092	1092	1092	624

** . Correlation is significant at the 0.01 level (2-tailed).

Table 5.10 Cohen's (1988,1992) criteria for effect size

$r < .10$	Trivial effect
$r = .10$	Small effect
$r = .30$	Medium effect
$r = .50$	Large effect

Although there was no specific question on gender asked during the focus groups, several female participants highlighted the issue of gender inequality in the labour market. Czech female students seemed to be more worried about finding a job after graduation taking into account possible future pregnancy and maternity leave. One participant said that she experienced discrimination from a potential employer who preferred to hire male graduates (female final year student, UNID). This view was supported by another participant who claimed that “employers prefer men and older women because they believe that if they hire a young female graduate she would decide to start a family and they will have to train somebody new to replace her” (female final year student, UNID). With regard to earnings, one participant mentioned that “traditionally men do get higher paid jobs because people who hire tend to be men”, thus reproducing the inequality (female first year student, UNIA). This was disputed by another participant who believed that “men are better for powerful jobs” and women are not interested in top positions “because they find them intimidating” (female first year student, UNIA). By contrast, one participant argued that the situation in the labour market has been improving with more female role models in business and politics (female first year student, UNID).

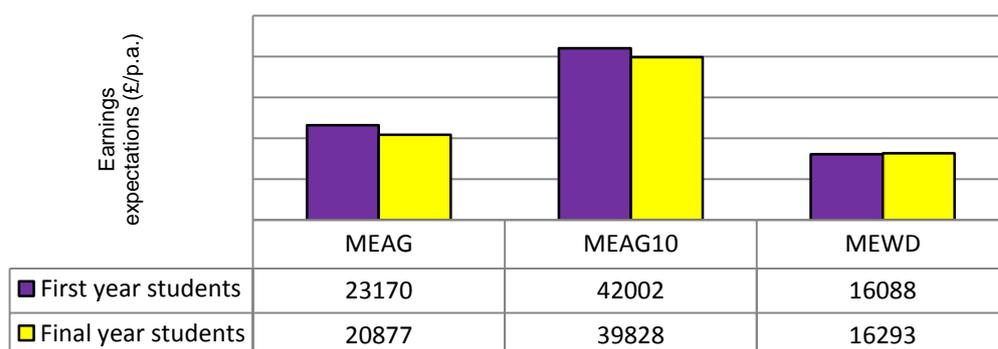
RQ2A: Is there a significant difference in earnings expectations between the first year and final year students?

(Null hypothesis: There is no significant difference between first year and final year students in their earnings expectations)

(Alternative hypothesis: There is a significant difference between first year and final year students in their earnings expectations)

This section will examine whether the seniority of students (i.e. proximity to graduation) is linked to their earnings expectations. Figures 5.16 and 5.17 show that the average earnings expectations of first years and final year students in both countries. One has to bear in mind that final year English students involved in this study were pursuing a Bachelor program while their Czech counterparts were completing a Master degree⁹⁹.

Figure 5.16 Students' seniority and earnings expectations: English sample

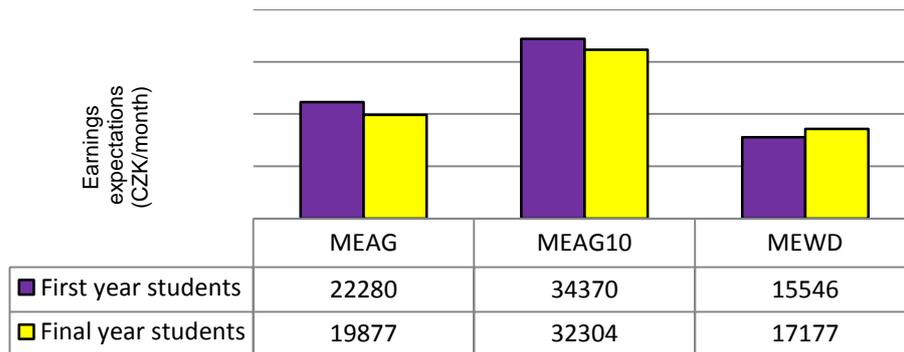


Figures 5.16 and 5.17 reveal that first year students in both countries expected to earn more than final year students under the MEAG and MEAG10 scenarios. Immediately after graduation, first year English students expected to earn 11% more compared to their final year counterparts. The difference observed in the Czech sample was even higher at 12.1%. On the other hand, final year students (both Czech and English) had slightly higher expectations under the MEWD scenario¹⁰⁰.

99 MEWD10 scenario was not included in the questionnaire for final year students and therefore it is not included in RQ2A.

100 However, it is necessary to point out that for this scenario first year students were asked to estimate their earnings if they decided not to go to university and find a job instead. On the other hand, final year students were asked to estimate their earnings if they dropped out from their course in their final year. The independent-samples t-test was carried out for this scenario – the difference in earnings expectations between first year and final year students was

Figure 5.17 Students' seniority and earnings expectations: Czech sample



Proximity to graduation was one of the predictors that were included in the regression analysis for the MEAG and MEAG10 scenarios. The regression coefficients can be found in Table 5.11. No statistically significant difference was found for the MEAG scenario. In other words, there was no difference in earnings expectations immediately after graduation between first year and final year students and the null hypothesis could not be rejected in this case. On the other hand, proximity to graduation was found to be significant for the MEAG10 scenario which means that earnings expectations 10 years after graduation were different for first year and final year students. Thus, the null hypothesis could be rejected in this scenario.

Table 5.11 Regression coefficients: Students' seniority (MEAG/MEAG10 scenarios)

Students' seniority	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG	-403.72	622.75	-.023	.517	-1624.80	817.36
MEAG10	4292.75	1623.60	.112	.008	1109.21	7476.28

To find out whether the difference in earnings expectations between first year and final year students was different across countries the interaction variable labelled "Students' Seniority X Country" was included into regression models which are summarised in Table 5.12. There

statistically significant only in the Czech sample [$t(1090) = -6.29, p = .000$ (two-tailed)]. Nevertheless, higher earnings expectations of final year Czech students are not surprising in this scenario because, as noted earlier, final year students in the Czech sample were Masters students who already had completed their Bachelor degree. Thus, even if they dropped out from their course during the final year they would still have a Bachelor degree (unlike their final year English counterparts who were pursuing a Bachelor degree - if they dropped out in their final year they would be left with no university qualification).

was no statistically significant difference in earnings expectations between first year and final year students across the countries.

Table 5.12 Regression coefficients: Students' Seniority X Country (MEAG/MEAG10 scenarios)

Students' seniority X Country	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG	127.41	827.25	.006	.878	-1494.66	1749.47
MEAG10	-4062.25	2156.77	-.081	.060	-8291.21	166.72

Point-biserial correlations were conducted to evaluate the strength of the relationship between earnings expectations and proximity to graduation (Tables 5.13 and 5.14). Overall, students' seniority could explain more variability within the Czech sample. The strongest correlation was found between the students' seniority and the MEAG scenario explaining 4.3% of the variability. For the MEWD scenario students' seniority accounts for 3.5% of the variability in earnings expectations. The effect was negligible for the MEAG10 scenario. With regard to the English sample the strongest relationship was also found between the students' seniority and the MEAG scenario and the magnitude of the differences in the means for the MEAG10 and MEWD scenarios was not substantive (using Cohen's criteria (Table 5.10) the relationship between students' seniority and earnings expectations was trivial).

Table 5.13 Point-biserial correlations/Students' seniority: English sample

		Students' seniority	MEAG	MEAG10	MEWD
Students' seniority	r_{pb}	1	-.162**	-.054*	.015
	R^2		.026	.003	.000
	Sig. (2-tailed)		.000	.020	.512
	N	1878	1878	1878	1878

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 5.14 Point-biserial correlations/Students' seniority: Czech sample

		Students' seniority	MEAG	MEAG10	MEWD
Students' seniority	r_{pb}	1	-.207**	-.080**	.187**
	R^2		.043	.006	.035
	Sig. (2-tailed)		.000	.008	.000
	N	1092	1092	1092	1092

** . Correlation is significant at the 0.01 level (2-tailed).

During the focus groups, students were asked how much they would expect to earn in their first graduate job (i.e. MEAG scenario). In general, final year students seemed to be less optimistic about their graduate labour market prospects and expected lower starting salaries than their first year counterparts which is in line with the results from the quantitative analysis. In the Czech Republic, final year students (UNID) suggested an initial salary of 16,000 CZK/month. This group believed that a low starting salary was almost inevitable due to high regional unemployment figures and a lack of graduate employers within the region. Amongst the first year students (UNID) the lowest expected salary was CZK15,000/month and the highest was 25,000 CZK/month.

In the English sample, the answers from the first year students (UNIA) ranged from “nothing exceptional” and “minimum wage” to £20,000p.a. With regard to the final year students (UNIA), their answers depended on their work experience. While those who had completed a supervised work placement expected at least £20,000 p.a., those pursuing a standard three-year course agreed on £15,000-£17,000 p.a.. Although the sample size was small, the answers are consistent with survey results that showed higher earnings expectations for first year students in the MEAG scenario.

RQ3A: Does students' ethnicity have an impact on their earnings expectations?

(Null hypothesis: Students' ethnicity does not have an impact on their earnings expectations)

(Alternative hypothesis: Students' ethnicity does have an impact on their earnings expectations)

It has been acknowledged in the literature review that one's ethnicity is linked to labour market outcomes. Nevertheless, only two studies (Speed, 2007; Jerrim, 2008) took students' ethnicity into account when examining their earnings expectations. As noted earlier, the

Czech sample was ethnically homogenous and therefore it would not be included in this analysis.

During the survey, English students were asked to classify themselves into five ethnic groups including “white British”, “black British”, “mixed”, Asian British” and “other”. Students who chose the option “other” were further asked to specify. Most students in this group stated their ethnicity as Chinese or Arabic. Table 5.15 reveals that black British students had the highest earnings expectations in all four scenarios. By contrast, the earnings expectations of white British students were the lowest for the MEAG, MEAG10 and MEWD scenarios.

Table 5.15 Ethnicity and earnings expectations: English sample

Ethnicity		N	Minimum	Maximum	Mean	Std. Deviation
White British	MEAG	1123	5000	55000	21915.76	5449.909
	MEAG10	1123	2000	200000	40005.08	17078.806
	MEWD	1123	3000	55000	15933.93	4816.586
	MEWD10	780	3000	180000	24408.08	10181.837
Black British	MEAG	118	10000	65000	24334.75	8096.125
	MEAG10	118	17000	150000	45775.42	21800.925
	MEWD	118	7000	40000	16851.69	6029.241
	MEWD10	92	7500	75000	25010.87	10159.708
Mixed	MEAG	52	10000	40000	22269.23	5636.420
	MEAG10	52	24000	90000	41403.85	14710.620
	MEWD	52	6000	40000	16630.77	6574.387
	MEWD10	36	8000	50000	23027.78	8666.804
Asian British	MEAG	510	5000	120000	23318.63	7881.985
	MEAG10	510	12000	200000	43107.84	20816.065
	MEWD	510	3500	170000	16334.31	8543.113
	MEWD10	389	3500	65000	23442.16	9277.293
Other	MEAG	72	12000	50000	22493.06	6377.498
	MEAG10	72	20000	100000	42625.00	17506.085
	MEWD	72	8000	40000	16666.67	5296.823
	MEWD10	19	9000	50000	22210.53	9902.743

To find out whether the differences between the groups were statistically significant ethnicity was included in the regression models. Since ethnicity is a categorical variable with more than two groups it was necessary to create dummy variables first. The “white British” group

was used as a reference group against which the other groups were compared. The unstandardised regression coefficient (b) in this case represents the relative difference in earnings expectations between each ethnic group and the “white British” group. The results of the regression analysis are presented in Table 5.16.

The b value represents the change in the outcome due to a unit change. In this case, a unit change in the predictor is the change from 0 to 1 because dummy variables were used. For example, the dummy variable “white British vs. black British” represents the difference in earnings expectations for “black British students”, relative to “white British” students. From Table 5.16 one can see that all b values were positive which implies that the earnings expectations of ethnic minority students (including “black British”, “mixed”, “Asian British” and “other”) were higher compared to “white British” students.

For the MEAG scenario, the mean score for “white British” students (M = 21915.76, SD = 5449.91) was significantly different from “black British” students (M = 24334.75, SD = 8096.13), “Asian British” students (M = 23318.63, SD = 7881.99) and “other” students (M = 22493.06, SD = 6377.50). Similar results were obtained for the MEAG10 scenario where the mean earnings expectations of “white British” students (M = 40005.08, SD = 17078.806) were significantly different from the mean earnings expectations of “black British” (M = 45775.42, SD = 21800.925), “Asian British” students (M = 43107.84, SD = 20816.065) and “other” students (M = 42625.00, SD = 17506.09).

Table 5.16 Regression coefficients: Ethnicity (MEAG/MEAG10 scenarios)

Ethnicity	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG scenario:						
White British vs. Black British	2105.13	464.25	.049	.000	1194.84	3015.42
White British vs. Mixed	654.77	673.29	.010	.331	-665.42	1974.95
White British vs. Asian British	1067.42	280.62	.048	.000	517.17	1617.66
White British vs. Other	1460.18	647.74	.027	.024	190.10	2730.25
MEAG10 scenario:						
White British vs. Black British	5108.03	1210.37	.055	.000	2734.76	7481.30
White British vs. Mixed	2190.11	1755.38	.016	.212	-1251.81	5632.04
White British vs. Asian British	3515.42	731.63	.073	.000	2080.85	4949.98
White British vs. Other	3812.64	1688.76	.032	.024	501.36	7123.93

Going back to the original hypothesis, ethnicity does have an impact on earnings expectations for “black British”, “Asian British” and “other” students who expect to earn more (both immediately after graduation and 10 years later) compared to “white British” students. On the other hand, earnings expectations are not different for the “mixed” group¹⁰¹ compared to the “white British” group.

RQ4A: Is there a link between parents’ income and students’ earnings expectations?

(Null hypothesis: There is no link between parents’ income and students’ earnings expectations)

(Alternative hypothesis: There is a link between parents’ income and students’ earnings expectations)

In this study participants were asked to estimate their parents’ income. Rather than providing the exact figures students were offered several options to choose from. As discussed previously, caution needs to be taken when interpreting the results because some students did not know their parents’ income and some were not willing to disclose it. Looking at the Figures 5.15 and 5.17 there seems to be a positive relationship between mother’s level of income and students’ earnings expectations in both the Czech and English samples. Czech students with fathers at the upper end of the income distribution expected to earn more than those whose fathers were on a low income. In the English sample father’s income does not appear to be associated with students’ earnings expectations.

While Figures 5.18, 5.19, 5.20 and 5.21 suggest a correlation between the parental level of income and students’ earnings expectations, the Pearson correlation test could not be applied here since the independent variable (i.e. the parental level of income) was designed as a categorical variable rather than a continuous one. Therefore, mother’s and father’s incomes were included in the regression analysis as dummy variables. In the regression models, the parental income was divided into three categories: low, medium and high¹⁰².

101 It should be noted that the number of students in this category was relatively low – there were only 52 students in the sample who identified themselves as “mixed”.

102 Low-income group: father’s/mother’s level of income less than £20,000 p.a. for English students and less than 20,000 CZK/month for Czech students.
Middle-income group: father’s/mother’s level of income between £20,000 and £40,000 p.a. for English students and between 20,000 CZK to 40,000 CZK per month for Czech students.

High-income group: father’s/mother’s level of income more than £40,000 p.a. for English students and more than 40,000 CZK/month for Czech students.

Figure 5.18 Father's income and earnings expectations: English sample

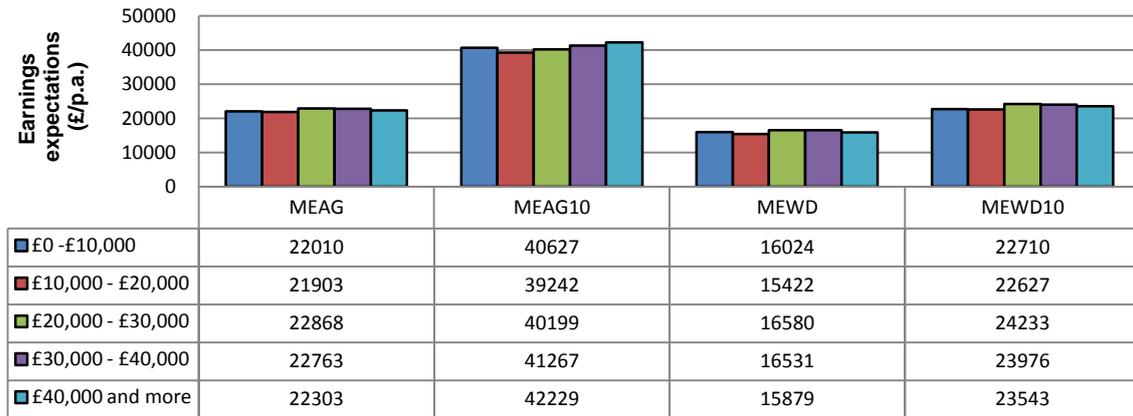


Figure 5.19 Mother's income and earnings expectations: English sample

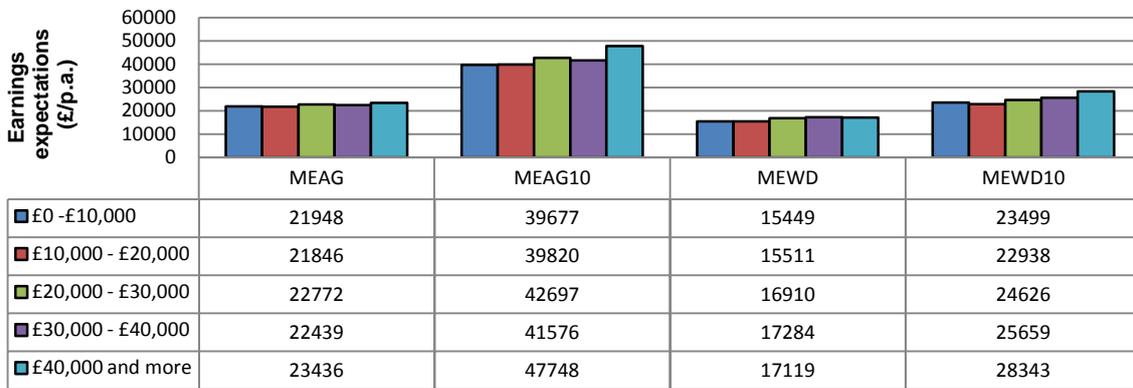


Figure 5.20 Father's income and earnings expectations: Czech sample

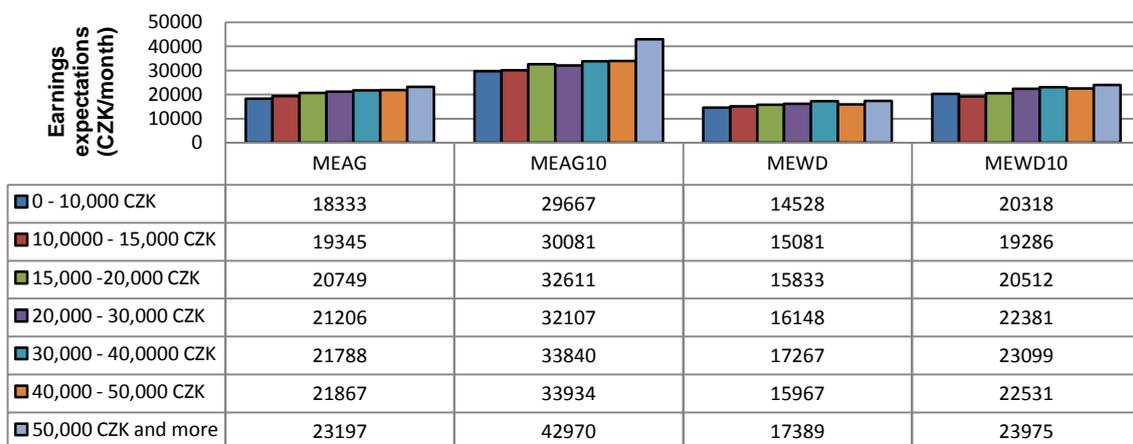
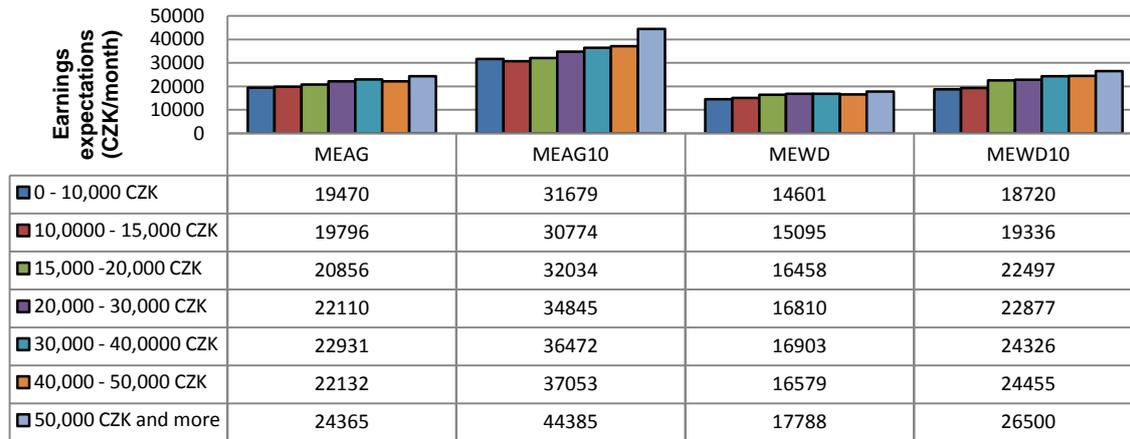


Figure 5.21 Mother's income and earnings expectations: Czech sample



The results from the regression analysis are summarised in Tables 5.17 and 5.18. For the MEAG10 scenario, it was found that there was a difference in earnings expectations between students with low-income parents and students with high-income parents. This difference was observed for both father's and mother's level of income. The b values were positive, which suggests that there is a positive relationship between parental income and students' expectations. Mother's level of income was not found to be a significant predictor of students' earnings expectations immediately after graduation; however, a statistically significant difference was found between students with low-income fathers and students with medium-income fathers.

Table 5.17 Regression coefficients: Father's level of income (MEAG/MEAG10 scenarios)

Father's level of income	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG scenario:						
Low vs. medium	871.56	266.74	.051	.001	348.54	1394.58
Low vs. high	370.32	314.60	.019	.239	-246.55	987.18
MEAG10 scenario:						
Low vs. medium	98.28	695.43	.003	.888	-1265.32	1461.87
Low vs. high	2588.57	820.21	-.005	.002	980.31	4196.83

Table 5.18 Regression coefficients: Mother's level of income (MEAG/MEAG10 scenarios)

Mother's level of income	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG scenario:						
Low vs. medium	321.70	287.87	.018	.264	-242.76	886.16
Low vs. high	95.72	482.06	.003	.843	-849.49	1040.94
MEAG10 scenario:						
Low vs. medium	1477.05	750.53	.039	.049	5.42	2948.68
Low vs. high	4188.21	1256.80	.062	.001	1723.89	6652.52

To assess whether there was any difference in earnings expectations between England and the Czech Republic several interaction variables were included in the regression analysis. Nevertheless, none of the interaction variables reached the statistical significance (Tables 5.19 and 5.20). In other words, the difference in earnings expectations between students with low-income parents and students with medium-income/high-income parents was not different across the countries.

Table 5.19 Regression coefficients: Father's level of income X Country (MEAG/MEAG10 scenarios)

Father's level of income X Country	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG scenario:						
Low vs. medium XCountry	-746.27	483.16	-.035	.123	-1693.64	201.10
Low vs. high XCountry	-192.68	558.25	-.007	.730	-1287.28	901.92
MEAG10 scenario:						
Low vs. medium XCountry	-395.92	1259.67	-.009	.753	-2865.86	2074.02
Low vs. high XCountry	-2104.82	1455.43	-.036	.148	-4958.62	748.97

Table 5.20 Regression coefficients: Mother's level of income X Country (MEAG/MEAG10 scenarios)

Mother's level of income X Country	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG scenario:						
Low vs. medium XCountry	116.36	433.90	.006	.789	-734.42	967.15
Low vs. high XCountry	811.16	714.86	.019	.257	-590.52	2212.84
MEAG10 scenario:						
Low vs. medium XCountry	-914.77	1131.24	-.020	.419	-3132.89	1303.35
Low vs. high XCountry	-2256.62	1863.74	-.024	.226	-5911.03	1397.75

RQ5A: Is there a link between parents' education and students' earnings expectations?

(Null hypothesis: There is no link between parents' education and students' earnings expectations)

(Alternative hypothesis: There is a link between parents' education and students' earnings expectations)

In this section, the focus is on parental education (independent variable) and its impact on students' earnings expectations (dependent variable). When completing the questionnaire, students were asked to provide information on their parents' highest level of education. There were four levels of parental education in the English sample – “no formal education”, “school”, “college” and “university”. In the Czech sample, three options were provided – “compulsory education”, “high school/college” and “university”. Figures 5.22, 5.23, 5.24 and 5.25 show students' earnings expectations based on their parental education.

From these graphs, one can see that the lowest levels of parental education (i.e. “no formal education” or “compulsory education”) tend to be associated with the highest earnings expectations in the MEAG and MEAG10 scenarios. This applied to both the Czech and English samples; however, in the Czech sample the number of respondents who chose “compulsory education” was very low for both father's and mother's level of education (20 and 35 respectively). The small number of cases could possibly distort the results. Another possible explanation is that students with the least-educated parents would likely know least about graduate salaries and have a tendency to overestimate them.

Figure 5.22 Father's education and earnings expectations: English sample

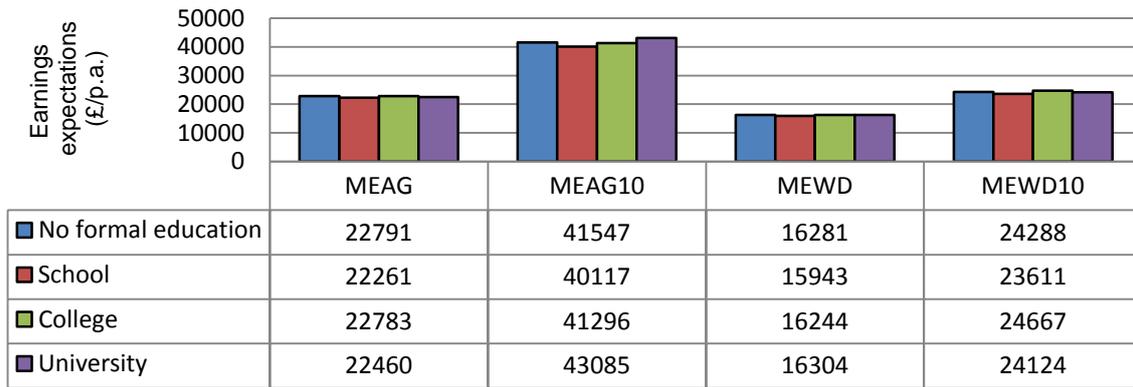


Figure 5.23 Mother's education and earnings expectations: English sample

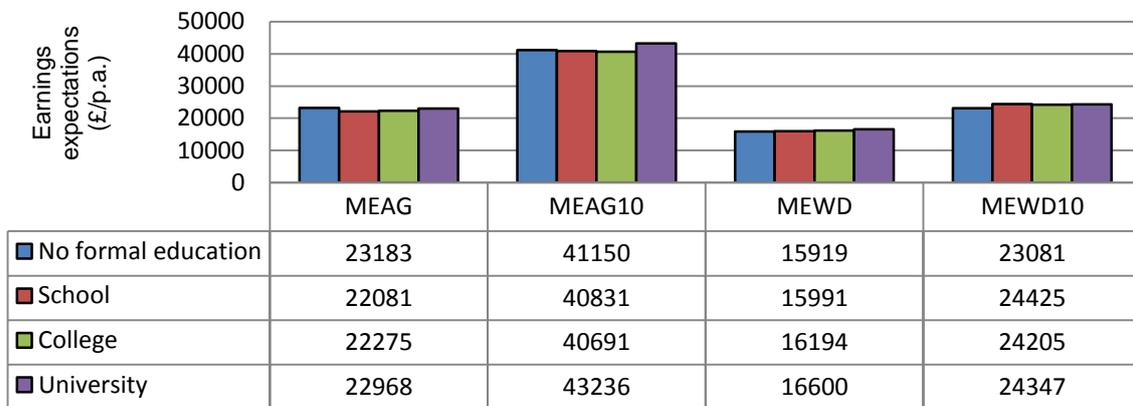
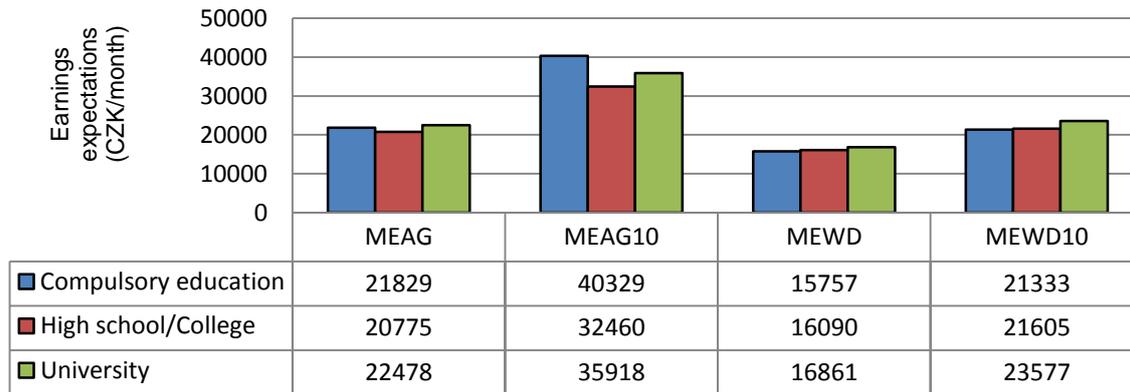


Figure 5.24 Father's education and earnings expectations: Czech sample



Figure 5.25 Mother's education and earnings expectations: Czech sample



To find out whether there is an association between parental education and students' earnings expectations, dummy variables were created and included in the regression models. In order to make possible a direct comparison between the two countries, the independent variable parental education was divided into three categories: low-levels, medium-levels and high-levels of parental education¹⁰³. The "low-levels of education" category was used as a baseline category.

Table 5.21 Regression coefficients: Father's level of education (MEAG/MEAG10 scenarios)

Father's level of education	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG scenario:						
Low vs. medium	499.24	297.87	.029	.094	-84.82	1083.29
Low vs. high	-51.33	370.71	-.003	.890	-778.21	675.54
MEAG10 scenario:						
Low vs. medium	-227.85	776.59	-.006	.769	-1750.58	1294.88
Low vs. high	-236.76	966.49	-.005	.806	-2131.84	1658.31

103 "Low-levels of education" group included parents with "no formal education" for English students and parents with "compulsory education" for Czech students.

"Medium-levels of education" group included parents who completed "school" or "college" for English students and parents who completed "high school/college" for Czech students.

"High-levels of education" group included parents with university education for both Czech and English students.

Table 5.22 Regression coefficients: Mother's level of education (MEAG/MEAG10 scenarios)

Mother's level of education	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG scenario:						
Low vs. medium	-661.05	330.77	.038	.046	-1309.63	-12.47
Low vs. high	-300.58	416.08	-.015	.470	-1116.43	515.26
MEAG10 scenario:						
Low vs. medium	1477.05	750.53	.039	.049	5.42	2948.68
Low vs. high	4188.21	1256.80	.062	.001	1723.89	6652.52

Table 5.21 shows that father's level of education is not a significant predictor of students' earnings expectation. On the other hand, a significant difference in earnings expectations was found between students whose mothers had low-levels of education and students whose mothers had medium-levels of education (Table 5.22). This finding applies to both the MEAG and MEAG10 scenarios. Moreover, for the MEAG10 earnings expectations of students whose mothers had high-levels of education were significantly different from students whose mothers had low-levels of education. The b coefficient was positive in this case which suggests a positive relationship between mother's level of income and students' earnings expectations. Finally, an interaction term was added into the regression models to find out whether there were any differences between countries; however, no significant difference was found (Table 5.23).

Table 5.23 Regression coefficients: Mother's level of education X Country (MEAG/MEAG10 scenarios)

Mother's level of education X Country	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG scenario:						
Low vs. medium XCountry	135.64	835.69	.007	.871	-1502.98	1774.25
Low vs. high XCountry	23.09	938.33	.001	.980	-1816.78	1862.96
MEAG10 scenario:						
Low vs. medium XCountry	-3634.05	2178.78	-.089	.095	-7906.16	638.06
Low vs. high XCountry	-3372.14	2446.37	-.050	.168	-8168.95	1424.68

The analysis of quantitative data revealed that mother's level of education is a predictor of students' earnings expectations. On the other hand, the analysis of qualitative data showed that parental education (and to some extent income) was one of the most important factors that influence students' decisions to attend university. During the focus group, students with highly educated parents mentioned that not going to university was never really an option for them, as one student stated: "everyone in my family has been [to university]" (male student, final year, UNIA). One Czech student revealed that her mother had graduated with a so-called "red diploma" and expected her to get one too (female student, first year, UNID). Another student said that his father, who had a Master degree, was keen for him to get a degree and supported him financially throughout his studies (male student, final year, UNID). Being surrounded by graduates also served as a motivation – one student felt that he could not be "worse" than the rest of his family where everyone had achieved degree status (male student, first year, UNID).

On the other hand, being the first in the family at university was perceived as a disadvantage by some first-generation university students. One student reported that her parents were worried about the financial costs associated with HE and tried to discourage her from going to university: "I was the first one in my family to attend university and my parents thought it was not the best idea and I should have found a job instead" (female student, final year, UNID). Another student maintained that her working-class parents were supportive of her decision to attend university; however, they could not provide any financial or practical help: "I am from a working-class family...I have done it all myself, my parents were supportive but they have not really helped me" (female student, first year, UNIA).

5.3.2 The role of education in students' labour market expectations (Group B)

One of the aims of this section is to explore the role of education in explaining students' earnings expectations. In order to do so, quantitative data collected from questionnaires were analysed using various statistical tests. The independent variables examined in this section included the level of study, expected final grade, postgraduate study and expected overeducation after graduation. Another variable, university prestige, was analysed using qualitative data from focus groups. The second goal is to find out whether there is any evidence of a sheepskin effect in students' earnings expectations. The final part of this section focuses on students' perceptions of the education-labour market link.

RQ1B: Do students' earnings expectations increase with education?

(Null hypothesis: There is no difference in expected earnings between different levels of education)

(Alternative hypothesis: There is a difference in expected earnings between different levels of education)

A positive relationship between education and earnings, the so-called graduate premium, was discussed in Chapter 3. In this study, first¹⁰⁴ year students were asked to estimate their earnings with different levels of education. Firstly, they were asked how much they would expect to earn if they had decided to find a job after completing their A-levels/Maturita exam rather than going to university (MEWD and MEWD10 scenarios). Secondly, university education was taken into account – students provided their estimates on earnings after graduation (MEAG and MEAG10 scenarios).

Given that education is a categorical independent variable with two different levels (i.e. A-levels/Maturita and Bachelor/Masters degree) a paired-samples t-test was used to assess the effect of education on expected earnings.

Starting with the English sample, the mean expected earnings for the MEWD scenario were £16,088 p.a. (SD = 5290) and students anticipated their earnings to increase by 44% to £23,170 p.a. (SD = 6966) after graduation. The expected rise in earnings was even more evident after ten years in the labour market – on average students expected to earn £42,002 p.a. (SD = 18436) as graduates with ten years experience; this is 74% more compared to what they would expect to earn (£24,099 p.a.; SD = 9877) had they decided not to go to university.

Looking at the t-test results presented in Table 5.24, one can see that the difference in expected earnings between different educational levels was statistically significant in the English sample. For pair 1 (i.e. MEWD – MEAG scenarios) the difference, 7081, with a 95% confidence interval ranging from 6717 to 7446, was significant $t(1318) = 38.148$, $p = .000$ (two-tailed). To evaluate the importance of this result in practical terms it is necessary to calculate the effect size which was discussed in section 4.6.3.3. The eta squared (η^2) for pair 1 was .52. This value indicates a large effect size (using Cohen's guidelines¹⁰⁵), there was a substantial difference in earnings expectations between the MEWD and MEAG scenarios.

104 Final year students were not included in this analysis since data was not collected for MEWD10 scenario. The difference in final year students' expectations between MEWD and MEAG scenario is analysed separately as a sheepskin effect in RQ7B.

105 Presented in Table 4.3.

There was also a statistically significant difference for pair 2 (i.e. MEWD10 – MEAG10 scenarios) where the difference, 17903, with a 95% confidence interval ranging from 17036 to 18770, was significant $t(1318) = 40.518$, $p = .000$ (two-tailed). The eta squared statistic ($\eta^2 = .55$) suggested a large effect size.

Table 5.24 Paired samples test/Level of education: English sample

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	MEWD-MEAG	7081.35	6741.60	185.63	6717.19	7445.51	38.15	1318	.000
Pair 2	MEWD10-MEAG10	17902.88	16047.24	441.85	17036.07	18769.69	40.52	1318	.000

Data collected from the Czech sample were analysed in a similar manner and the main findings are summarised in Table 5.25. Under MEWD scenario students expected to earn 15,546 CZK/month on average with SD = 4327. The mean expected earnings under MEAG scenario were 22,280 CZK/month (SD = 5945). This value was very similar to the expected earnings under MEWD10 scenario which were 22,055 CZK/month (SD = 8787). This implies that students perceive their degree to be worth ten years of work experience. Finally, the highest expectations, 34,370 CZK/month (SD = 13393), were obtained for the MEAG10 scenario.

Table 5.25 Paired samples test/Level of education: Czech sample

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	MEAG-MEWD	6733.98	5697.47	228.08	6286.07	7181.88	29.524	623	.000
Pair 2	MEAG10-MEWD10	12314.90	13481.66	539.70	11255.06	13374.75	22.818	623	.000

For pair 1(i.e. MEWD – MEAG scenarios) the difference in means, 6734, with a 95% confidence interval ranging from 6286 to 7182, was significant $t(623) = 29.524$, $p = .000$

(two-tailed). The eta squared was calculated to determine the practical importance of the findings. The value is .58, indicating a large effect, with a substantial difference in the expected earnings between the two scenarios. For pair 2 (i.e. MEWD10 – MEAG10 scenarios) there was also a statistically significant difference in means, $t(623) = 22.818$, $p = .000$ (two-tailed), with a 95% confidence interval ranging from 11255 to 13375. The effect size was .46, suggesting a large effect.

In conclusion, there was a significant difference in earnings expectations when two different levels of education were considered. In the English sample, students' earnings expectations with completed A-levels were compared to earnings expected after obtaining a Bachelor degree. Czech students were asked to estimate their earnings with a Maturita and a Master degree. Since the difference in expected earnings was found to be significant in both samples the null hypothesis (i.e. "There is no difference in expected earnings between different levels of education") was rejected.

RQ2B: Are earnings expectations of those who plan postgraduate studies different from those who want to start a career immediately after graduation?

(Null hypothesis: There is no difference in earnings expectations between those who plan to continue their studies and those who want to start their careers after graduation)

(Alternative hypothesis: There is a difference in earnings expectations between those who plan to continue their studies and those who want to start their careers after graduation)

The existence of a postgraduate premium has been documented in the literature review; however, very little is known about the effect of postgraduate studies on students' earnings expectations. While completing the questionnaire, English students (both first year and final year) were asked whether they intended to stay in HE after graduation. There was a noticeable difference between first year and final year students. While more than a quarter (27.7%, $n = 363$) of first year students considered postgraduate studies as an option, only 5.7% ($n = 32$) of final year students planned to pursue a higher degree (including Master degree and PhD).

As was explained previously the vast majority of Czech students leave HE with a Master degree. Thus a question on postgraduate studies was not a part of the Czech version of the questionnaire. When surveying final year students about their plans after graduation 2.8% of

respondents (n = 13) believed they would be studying for a PhD. However, this number was not sufficient for any further statistical analysis.

Since first year students have been found to have higher earnings expectations on average it was decided to analyse first year and final year students separately. Moreover, the MEWD and MEWD10 scenarios were excluded in this analysis given that the focus is on the effect of a postgraduate degree on earnings expectations.

Figure 5.26 compares the average earnings expectations of those first year students who considered obtaining a postgraduate degree with the rest of the sample. From Figure 5.26, one can see that the difference is negligible in both the MEAG and MEAG10 scenarios. In other words, the existence of a postgraduate premium in students' expectations was not evident. By contrast, final year students who were planning to continue their studies after graduation had higher expectations compared to those who were looking for a graduate job (Figure 5.27).

Figure 5.26 Expected postgraduate studies and earnings expectations: English sample (first year students)

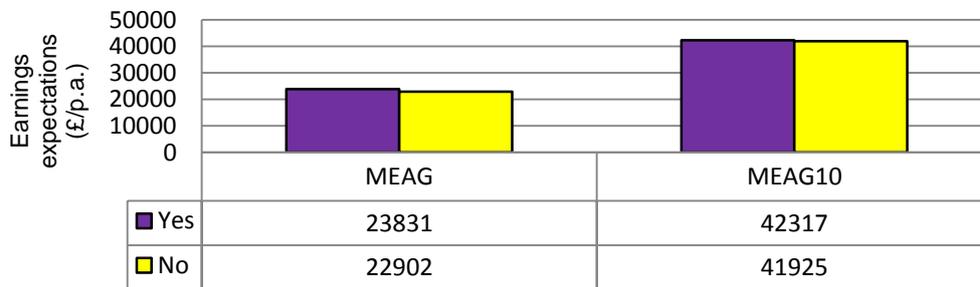
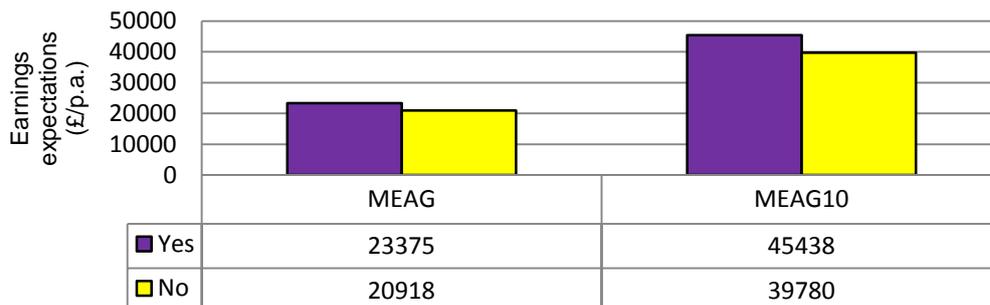


Figure 5.27 Expected postgraduate studies and earnings expectations: English sample (final year students)



Since postgraduate study is a categorical variable with only two levels (i.e. yes/no) independent-measures t-tests were carried out to assess statistical significance¹⁰⁶. There were two scenarios considered (i.e. MEAG and MEAG10) which means that α level had to be lowered to $0.05/2 = 0.025$ (using the Bonferroni correction).

There was no significant difference in earnings expectations for those who planned postgraduate studies and those who intended to work immediately after graduation. This was true for both first year and final year students and both the MEAG and MEAG10 scenarios. In other words, the null hypothesis could not be rejected. Although final year students expected to earn more on average, these observed differences in means likely occurred due to a sampling error¹⁰⁷ (chance). Complete results from t-tests are available in Appendix 5.4.

Before moving to the qualitative data analysis point-biserial correlations were performed in order to assess the practical importance of the results. From Tables 5.26 and 5.27, one can see that the association between postgraduate study and earnings expectations was not statistically significant. Moreover, postgraduate studies were found to be of little practical significance since this variable could explain less than 1% of the variance in students' earnings expectations.

Table 5.26 Point-biserial correlations/Expected postgraduate studies: English sample (first year students)

		Postgraduate studies	MEAG	MEAG10
Postgraduate studies	r_{pb}	1	.060	.009
	R^2		.004	.000
	Sig. (2-tailed)		.031	.732
	N	1311	1311	1311

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

¹⁰⁶ The effect of postgraduate study on earnings expectations was also examined during the regression analysis. Earnings expectations of final year students who expected to be in a graduate job 6 months after graduation were compared to those final year students who planned to continue their studies after graduation. There was no statistically significant difference between these groups in terms of their expected earnings both immediately after graduation and 10 years later (full results can be found in Appendix 5.2 and Appendix 5.3).

¹⁰⁷ Sampling error (variation/fluctuation) is a statistical error which refers to the extent to which a statistic (e.g. the mean) varies in samples taken from the same population.

Table 5.27 Point-biserial correlations/Expected postgraduate studies: English sample (final year students)

		Postgraduate studies	MEAG	MEAG10
Postgraduate studies	r_{pb}	1	.084	.034
	R^2		.007	.001
	Sig. (2-tailed)		.047	.424
	N	556	556	556

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The question on postgraduate studies was also addressed in focus groups. Students were asked firstly whether they were thinking of doing a Masters/PhD and consequently the reasons for their answers were discussed. It should be reminded at this point that the focus groups were conducted during the academic year 2011/2012 before a student loan system for Masters degree in England was announced by the UK Government.

Some students said part-time postgraduate studies would be an option “later on in life” [female final year student, UNIA] rather than “immediately after graduation” [male final year student, UNID]. One of the reasons were the costs/lack of funding - [Masters degree] is “too expensive” [male final year student, UNIA]. Another reason was work experience/building career: “I would like to find a good job first” [male final year student, UNID]. Similarly, one student felt it was important to “get some work experience...and later on focus on one subject” [male first year student, UNIA]. Starting a family was also mentioned: “I would like to have children after finishing my Bachelor degree” [female first year student, UNID].

Students’ motivations for pursuing postgraduate degree were various. One student admitted he did not know “what else to do after graduation” [male first year student, UNIA]. Some students said that having a Masters’ degree was a necessary as “there were so many [people] with a degree” [male first year student, UNIA] and “it looks good on your CV” [female first year student, UNIA]. The labour market situation was also named as a factor: “If there are opportunities in the job market I would just go straight for them but if not [Masters degree] would become an option” [male first year student, UNIA]. Finally, one student considered doing a PhD simply for the sake of learning [male final year student, UNID].

RQ3B: Do expected university grades have an effect on earnings expectations among final year English students?

(Null hypothesis: Expected university grades do not have an effect on final year students' earnings expectations)

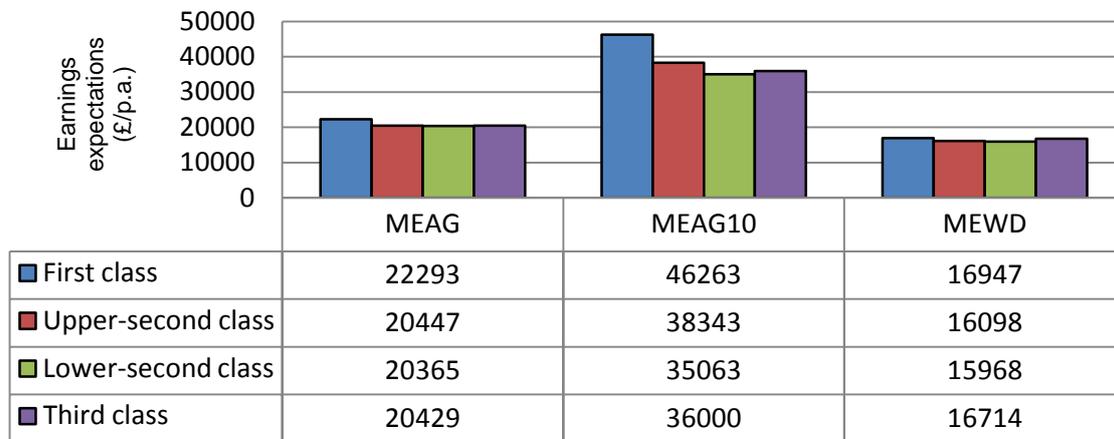
(Alternative hypothesis: Expected university grades do have an effect on final year students' earnings expectations)

This section focuses on the relationship between academic achievement and students' expectations after graduation. During the survey, final year students in the English sample were asked what final grade they had expected to achieve. This question was not included in the survey of first year students because they started their courses recently and their first year results do not count towards the final classification. Moreover, questionnaires were also collected (albeit not analysed in this study) from international students, most of whom had limited knowledge of the British undergraduate degree classification system at the beginning of their studies. The question on expected results was not a part of the Czech questionnaire either since Czech graduate employers rarely use this information during the recruitment process; however, students' perceptions of the importance of academic results on their potential employment were explored during focus groups.

Since this study was designed as anonymous it was not possible to compare students' expected final grades with the grades they actually achieved. As noted in section 5.3.1, students tended to be optimistic and overestimated their final results. In the whole sample (n = 559) there were only seven students who expected to obtain third class and 87.5% of participants expected to achieve a "good" degree (i.e. upper-second or first class). Nevertheless, as discussed previously, this is far from the reality and therefore caution has to be taken when interpreting the impact of students' academic results on their earnings expectations.

In Figure 5.28 final year students are divided into four groups based on their expected final grade. The average earnings expectations are shown for each subgroup. There seems to be a positive relationship between academic results and earnings expectations. The difference between the "first class" group and rest of the sample is particularly prominent in the MEAG10 scenario. To confirm these observations the independent variable "expected final grade" was included into the regression models.

Figure 5.28 Expected final grade and earnings expectations: English sample (final year students)



The independent variable “expected final grade” is a categorical variable with more than two groups. Thus, it was necessary to create dummy variables first. Students who expected to achieve a first class degree were used as a reference group against which the other groups were compared. The results of the regression analysis are presented in Table 5.28.

Table 5.28 Regression coefficients: Expected final grade (MEAG/MEAG10 scenarios)

Expected final grade	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG scenario:						
First class vs. Upper-second class	-2116.16	610.08	-.082	.001	-3312.39	-919.93
First class vs. Lower-second class	-2421.71	852.86	-.042	.005	-4093.99	-749.44
First class vs. Third class	-3686.33	1966.43	-.021	.061	-7542.08	169.42
MEAG10 scenario:						
First class vs. Upper-second class	-8626.67	1590.56	-.154	.000	-11745.42	-5507.91
First class vs. Lower-second class	-11892.55	2223.54	-.094	.000	-16252.43	-7532.67
First class vs. Third class	-9834.83	5126.78	-.026	.055	-19887.35	217.70

It can be seen from Table 5.28 that the expected earnings of English students who expected to obtain a first class degree were significantly different from those who expected an upper-second or lower-second class. The difference between students who expected first class and those who expected third class was not found to be statistically significant; however, one has to bear in mind that the number of respondents in the latter subgroup was very low ($n = 7$) for the purposes of statistical analysis. Table 5.28 also shows that all b values were negative. Since dummy variables were used the unit change from 0 (i.e. expected first class) to 1 (i.e. expected upper-second, lower-second or third class) was associated with a decrease in earnings expectations. In other words, students who expected to obtain a first class degree expected to earn more both immediately after graduation and 10 years later. Therefore, the null hypothesis (i.e. expected grades do not have an effect on earnings expectations) can be rejected.

The importance of academic results was also discussed during the focus groups. Students were asked how relevant their classification would be in the graduate labour market. Within the English sample, the notion of having a “good” degree was omnipresent, especially with first year students. As one student plainly put it, “if you got 2.1 or first you have got a much better chance than somebody with 2.2 or third” [female first year student, UNIA]. One student believed that “it was getting really tough to get a job” and viewed classification as a “deciding factor” for employers [male first year student, UNIA]. This view was supported by another student who claimed that there were many graduates in the labour market and classification allowed them to distinguish themselves [female first year student, UNIA].

Some students noted that the link between academic achievement and graduate career is relative. One student suggested that this criterion was only applied to higher paid jobs [male first year student, UNIA]. Some final year students who were familiar with the recruitment process agreed that the importance of classification depended on “the role, what position, what company” [male final year student, UNIA] and also on the number of people who applied for the job [female final year student, UNIA].

Students in the Czech Republic were generally not worried about their academic results. Final year students agreed that having a “red” diploma¹⁰⁸ was not a prerequisite for a successful graduate career. One student believed that the only positive effect of a “red” diploma was one’s satisfaction [male final student, UNID]. Another student was even more sceptical, suggesting that studying for a “red” diploma was a waste of time and effort that

108 The requirements for the “red” diploma vary from institution to institution. As a general rule students’ average results cannot exceed 1.5 throughout their studies. Another usual requirement is that Students have to achieve grades 1 or 2 in all modules (if they get 3 or 4 in any exam they can repeat it).

should rather be spent on travelling and work experience [male final year student, UNID]. On the other hand, one student believed that, given the increasing population of graduates, academic achievement would be used by employers as one of the criteria during the hiring process [female first year student, UNID].

RQ4B: Is there a difference in earnings expectations between those students who spent part of their studies abroad and those who did not?

(Null hypothesis: There is no difference in the earnings expectations between those who spent part of their studies abroad and those who did not)

(Alternative hypothesis: There is a difference in the earnings expectations between those who spent part of their studies abroad and those who did not)

Studying abroad is an opportunity for students to become more confident and independent which in turn may help them to stand out from the graduate crowd. As noted earlier, the UK has some of the lowest participation rates among European countries. Therefore, the question on study abroad was not included in the English questionnaire.

Figure 5.29 shows the mean earnings expectations of Czech final year students. As one can see from the graph, students who spent part of their studies abroad had higher expectations in all three scenarios, the difference was particularly noticeable for the MEAG10 scenario.

Figure 5.29 Study abroad and earnings expectations: Czech sample (final year students)



Study abroad is a categorical variable with only two values (i.e. yes/no) and this predictor was included in the regression analysis. Table 5.29 provides a summary of the regression results.

Table 5.29 Regression coefficients: Study abroad (MEAG/MEAG10 scenarios)

Study abroad	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG	41.00	990.84	-.001	.967	-1901.81	1983.83
MEAG10	-1207.49	2583.27	-.008	.640	-6272.73	3857.74

The regression analysis revealed that there was no significant difference in earnings expectations between those Czech students who spend part of their studies abroad and those who did not. These findings apply to both MEAG and MEAG10 scenarios. Thus, the observed differences in means (Figure 5.29) likely occurred due to sampling error. The null hypothesis (i.e. no difference in earnings expectations between students who spent part of their studies abroad and those who did not) could not be rejected.

The final step was to determine whether study abroad has any practical relevance. The point-biserial correlations presented in Table 5.30 show that the independent variable study abroad could explain 3.1% and 2.6% of the variability in students' earnings expectations for the MEAG and MEAG10 scenarios, respectively.

Table 5.30 Point-biserial correlations/Study abroad: Czech sample (final year students)

		Study abroad	MEAG	MEAG10
Study abroad	r_{pb}	1	.175**	.162**
	R^2		.031	.026
	Sig. (2-tailed)		.000	.000
	N	468	468	468

RQ5B: How do students perceive the relationship between university prestige and labour market opportunities?

As was noted in the literature review degrees are not treated equally in the graduate labour market. Firstly, some employers covertly prefer graduates from elite universities. Moreover, there is a positive relationship between university prestige and graduate earnings with graduates from Russell group universities enjoying an additional wage premium over graduates from other universities in the UK. Quantitative data analysis was not possible for this question since there were no Russell group universities participating in this study.

However, students were asked during the focus groups whether the prestige of their university would have an influence on their graduate job prospects.

Some students believed that university ranking does not play any role in the graduate labour market. As one student simply put it: “I do not think there is a discrimination from what university you are” [female final year student, UNIA]. Another student was more specific stating that “it will make no difference [what university you graduated from] because you get the same degree” [male first year student, UNIA]. It was also argued that personality is more important during the hiring process – “it is more about you than what university you went to” [female final year student, UNIA]. In a similar vein, experience such as study abroad was deemed more interesting for potential employers [female final year student, UNID].

However, other students were of the opinion that their university prestige could affect their chances both positively and negatively. UNIA was viewed as a “very reputable place to come from” [male first year student, UNIA]. This was supported by another student who claimed that “local employers would understand why you attended this university” [male first year student, UNIA]. UNIA was also described as a “hidden gem – no one really knows about it but people who know about it only heard good things” [male final year student, UNIA]. Similarly, UNID was also perceived as prestigious – “I decided to study here because this university is well-known among employers” [male final year student, UNID]. UNID was also considered to be “the best option within the region” when compared to other public and private institutions [female first year student, UNID].

A number of Czech students considered public universities to be more prestigious than their private counterparts. One student claimed that employers do not take graduates from private universities seriously due to their poor knowledge [female final year student, UNID]. Similarly, another student noted that “employers prefer graduates from public universities” because private universities graduates “just paid for their degree” [female first year student, UNID].

On the other hand, some students felt disadvantaged due to their university status. Elite universities were mentioned – “you need to go Russell group to get a real benefit” [male first year student, UNIA]. On a similar note, one student argued that [recruiters] were “more likely to go for someone who went to Cambridge” even if the person did not have relevant skills and experience [male final year student, UNIA].

In the Czech sample, it was suggested that employers prefer graduates from the University of Economics in Prague over graduates from other Faculties of Economics [female first year student, UNID]. One student believed that university ranking was not important when

applying for jobs with SMEs; however, large international companies would take the ranking into account during the selection process. From his experience when applying for a job within a multinational financial institution graduates from top-ranking universities were allowed to skip the initial job interview [male first year student, UNID]. Finally, when asked whether they would choose the same university again eight students said they would have chosen more prestigious universities including Leeds, Manchester, Masaryk University in Brno and the University of Economics in Prague.

RQ6B: Do students who expect to be overeducated after graduation have different earnings expectations from those who hope to be in a graduate job six months after graduation?

(Null hypothesis: There is no difference in earnings expectations between students who expect to have a graduate job six months after graduation and those who expect to be in non-graduate employment)

(Alternative hypothesis: There is a difference in earnings expectations between students who expect to have a graduate job six months after graduation and those who expect to be in non-graduate employment)

In the literature review, overeducation was defined as a situation in which graduates are in employment that requires only sub-degree level qualifications or no qualifications at all (Dolton and Vignoles, 2006). Although numerous studies have attempted to measure the incidence of overeducation in the labour market, students' perceptions of the problem have been rarely explored.

In this study, I am interested in the phenomenon of overeducation after graduation. Final year students were asked what they had expected to do six months after graduation. This approach is similar to that used by the Destination of Leavers from Higher Education survey in the UK. Several options were available in the questionnaire; however, in this section, only those participants who expected to be in either a graduate or a non-graduate job were included¹⁰⁹.

From Figures 5.30 and 5.31 one can see that those students who expected to be in a graduate job had higher earnings expectations; the difference was more noticeable in the MEAG10 scenario and in the Czech sample. To find out whether the difference was

¹⁰⁹ Those who planned postgraduate studies, self-employment, travelling or expected to be unemployed were excluded.

statistically significant the “expected type of employment” was one of the predictors in the multiple regression.

Figure 5.30: Expected type of employment and earnings expectations: English sample (final year students)

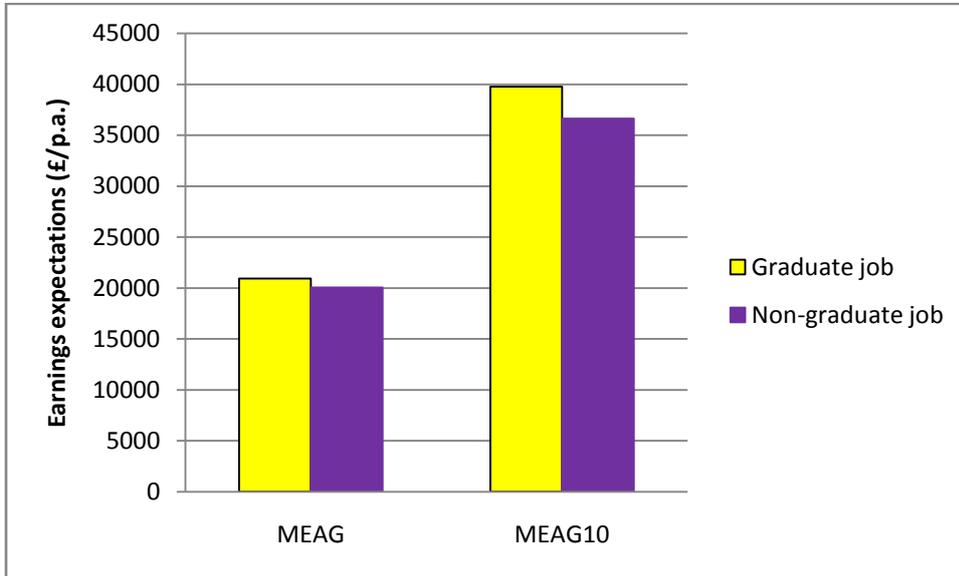


Figure 5.31: Expected type of employment and earnings expectations: Czech sample (final year students)

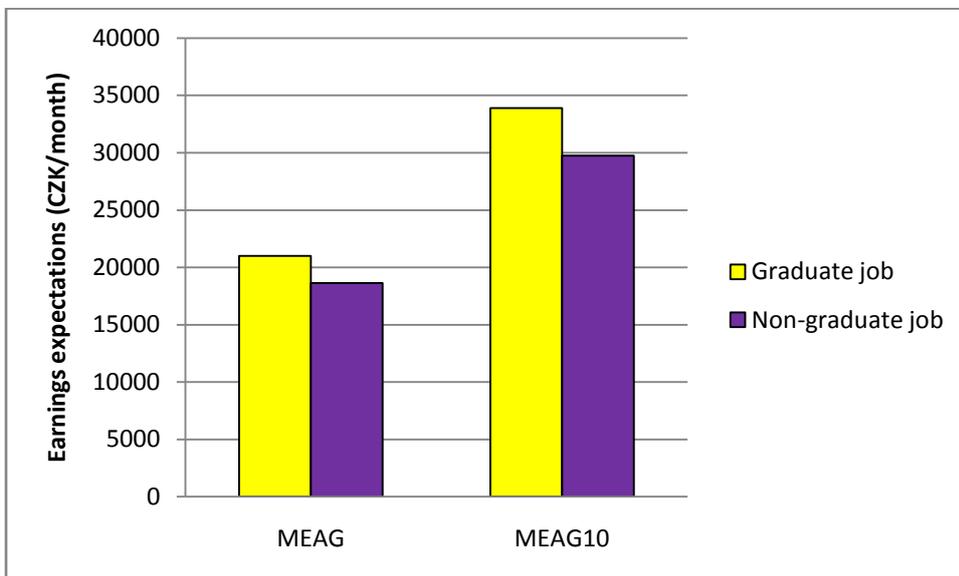


Table 5.31 provides a summary of the regression analysis. There was a statistically significant difference in earnings expectations between students who expected to be in a graduate type of employment (i.e. reference group) and those expecting to be in a non-graduate job. The b coefficient was negative – those students who expected to be in a non-graduate job expected to earn less compared to those who anticipated being in a graduate

position six months after graduation. This finding suggests that the pay penalty for being overeducated (i.e. having a non-graduate job) was anticipated by students. Therefore, the null hypothesis (i.e. “there is no difference in earnings expectations between students who expect to have a graduate job six months after graduation and those who expect to be in non-graduate employment”) could be rejected.

Table 5.31 Regression coefficients: Expected type of employment (MEAG/MEAG10 scenarios)

Type of employment (graduate vs. non-graduate)	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG	-1313.43	655.91	-.043	.045	-2599.53	-27.32
MEAG10	-4914.13	1710.07	-.073	.004	-8267.21	-1561.06

Moreover, an interaction variable was included into the regression models to find out whether there was any difference between England and the Czech Republic; however, the “graduate vs. non-graduate job” difference was not significantly different across the two countries (Appendix 5.2 and Appendix 5.3).

The problem of overeducation was also debated during the focus groups. Participants were asked how long they thought it would take to find a graduate job. Some students were fairly optimistic and were hoping to have one in less than six months after graduation. On the other hand, some students were worried about their career prospects – “it will take long [time] to get where you want to be” [male first year student, UNIA]. In a similar vein, it was claimed that “it is harder to get [graduate job] now” [female first year student, UNIA]. The longest period suggested was two years [female first year student, UNIA]; however, most students believed they would be in graduate employment within one year of graduation.

Furthermore, various factors that might influence one’s chances of finding graduate employment were suggested. One student argued that it would “depend on the economy, if there were [graduate] jobs available in the job market” [male first year student, UNIA]. In the Czech sample, some students felt that having personal connections and relevant work experience are prerequisites for securing a graduate job. Two students shared their personal experience:

“My cousin graduated with a Masters degree over a year ago but she is still registered at the Job Centre – she only has casual work experience and no right connections” [male first year student, UNID].

“My friend graduated last year, he had many interviews but has had no success so far in landing a graduate job so I am a bit worried myself” [male final year student, UNID].

It is worth noting that when discussing the problem of overeducation a number of Czech students touched on the existence of credential inflation in the contemporary labour market. It was argued that the vast majority of positions that require a degree [in economics] are administrative positions that could be carried out by a person with maturita exam” [male final year student, UNID]. Another student added that “you must have maturita to be a sales assistant nowadays and in the future Bachelor degree could be a new requirement [for this occupation]” [female final year student, UNID]. There was an opinion that “hiring criteria have been rising although the jobs remained the same; employers add more and more requirements that are completely pointless for the job” [female first year student, UNID].

Similarly, in the English sample, there was a general view that a degree is not necessary to perform well in a graduate job – “I think it’s only employers’ requirement...it is not necessary you can be taught I suppose” [male first year student, UNIA]. Students perceived their degree as a “technicality...piece of paper that proves you are capable” [male first year student, UNIA].

RQ7B: Is there any evidence of a sheepskin effect in final year students’ expectations?

(Null hypothesis: There is no difference between earnings expectations under MEAG scenario and earnings expectations under MEWD scenario)

(Alternative hypothesis: There is a difference between earnings expectations under MEAG scenario and earnings expectations under MEWD scenario)

A sheepskin effect was defined in Chapter 3 as a “difference in earnings between individuals possessing a diploma and those who do not, conditional on years of schooling” (Jaeger and Page, 1996: 733). No previous research has investigated the existence of a sheepskin effect in students’ expectations. In this study, final year students were asked how much they would expect to earn in a hypothetical scenario in which they were forced to drop out of their course in the final year due to personal reasons. These expectations (labelled MEWD scenario) were then compared with their earnings expectations after graduation (MEAG scenario).

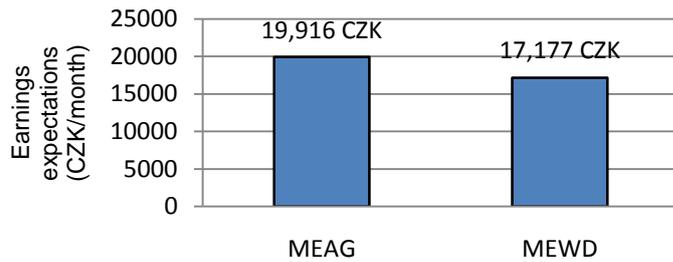
Figures 5.32 and 5.33 show that students in both countries had higher earnings expectations in the MEAG scenario; the sheepskin effect was larger in the English sample. To find out

whether the sheepskin effect was statistically significant a paired-samples t-test was applied (Table 5.32) since data was collected from one group of respondents (i.e. final year students) under two different scenarios (i.e. MEAG and MEWD scenarios).

Figure 5.32 Sheepskin effect: English sample (final year students)



Figure 5.33 Sheepskin effect: Czech sample (final year students)



On average, the earnings expectations of final year English students were higher under MEAG scenario ($M = 20876.57$, $SD = 4692.895$) compared to the MEWD scenario ($M = 16293.38$, $SD = 7909.477$). This difference was statistically significant: $t(558) = 14.27$, $p = .000$ and eta squared (η^2) was 0.517. Referring back to Cohen's benchmarks for effect sizes¹¹⁰ it can be concluded that there was a large effect within the English sample, with a substantial difference in earnings expectations between the MEAG and MEWD scenarios.

110 See Table 5.10.

Table 5.32 Paired samples test/Sheepskin effect: English sample (final year students)

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	MEAG- MEWD	4583.184	7593.843	321.185	3952.304	5214.064	14.270	558	.000

Czech final year students also expected to earn more under MEAG scenario (M = 19915.60, SD = 4957.186) compared to the MEWD scenario (M = 17177.35, SD = 4124.606). Table 5.33 shows that the difference in scores was statistically significant with $t(467) = 17.155$, $p = .000$ and the eta squared (η^2) was 0.622 indicating a large effect size:

In conclusion, students on average expected to earn more after completing their degree in contrast with the MEWD scenario where they would be forced to drop out in their final year. This supports the existence of a sheepskin effect in students' expectations and hence the null hypothesis (i.e. "There is no difference between earnings expectations under MEAG scenario and earnings expectations under MEWD scenario") can be rejected

Table 5.33 Paired samples test/Sheepskin effect: Czech sample (final year students)

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	MEAG- MEWD	2738.248	3453.014	159.616	2424.594	3051.902	17.155	467	.000

RQ8B: How do students perceive the relationship between education and labour market outcomes?

In Chapter 3, three competing theories (i.e. human capital theory, screening and credentialism) that try to explain the relationship between education and labour market outcomes, were introduced. In this section, students' perceptions of this relationship will be explored. When completing the questionnaire, final year students were asked to evaluate several statements related to education-labour market links. A 4-point Likert scale ranging from 1 "strongly disagree" to 4 "strongly agree" was used. There were two statements

related to human capital theory (i.e. HC1 and HC2), two statements were representative of screening hypothesis (i.e. SC1 and SC2) and four statements expressed the view of credentialism (i.e. CR1, CR2¹¹¹, CR3 and CR4). Table 5.34 provides a summary of the statements along with their coding.

Table 5.35 shows the average score for each statement. As mentioned above the Likert scale ranging from 1 to 4 was used; thus a score of 2.5 can be viewed as a middle point. In other words, students had a tendency to disagree with the statements where the average score was less than 2.5 and vice versa, students were more likely to agree with the statements with a mean score above the 2.5 cut-off point. In both countries, the highest scores were obtained for credentialism. While English students were most likely to agree with the CR1 statement Czech students favoured the CR3 statement the most. Figure 5.34 provides the combined mean scores for each theory. In both countries, the average scores for human capital theory and the screening hypothesis were very similar.

Table 5.34 Coding of the education-labour market link statements

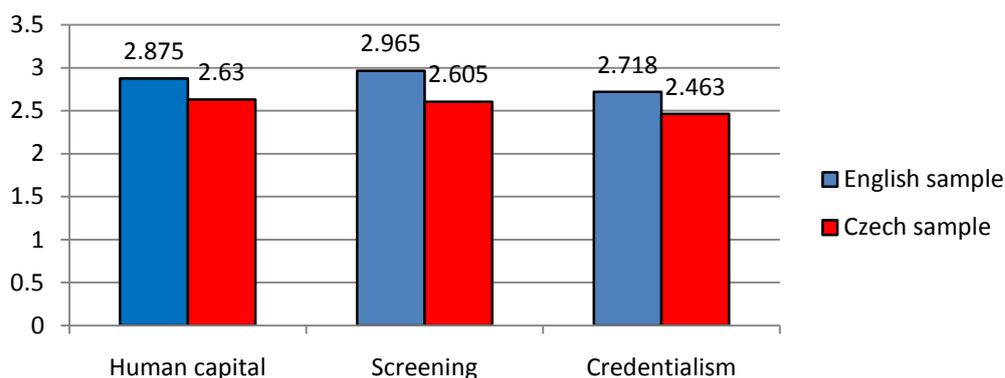
HC1	Employers prefer graduates with “good” degrees
HC2	Skills gained at university have a positive impact on graduates’ job performance
SC1	Degree is necessary to get a graduate job but not essential to perform the job
SC2	Graduates have more opportunities in the labour market compared to people who have similar skills and knowledge but who don’t hold a degree
CR1	Some employers prefer graduates from elite universities
CR2	Graduates from lower socio-economic backgrounds are disadvantaged in the graduate labour market because of their accent
CR3	Graduates from lower socio-economic backgrounds are disadvantaged in the graduate labour market because of their financial constraints
CR4	Graduates from lower socio-economic backgrounds are disadvantaged in the graduate labour market because of their lack of connections to potential employers

¹¹¹ Statement CR2 was not included in the Czech version of the questionnaire because a person’s accent does not indicate social class in the Czech republic.

Table 5.35 Mean score for education-labour market link statements: English and Czech sample (final year students)

Statement	Mean (English sample)	Mean (Czech sample)
HC1	2.68	2.82
HC2	3.07	2.44
SC1	3.04	2.25
SC2	2.89	2.96
CR1	3.19	2.19
CR2	2.56	
CR3	2.44	2.99
CR4	2.68	2.21

Figure 5.34 Mean evaluations of human capital, the screening hypothesis and credentialism: English and Czech sample (final year students)



Some of the statements that were presented in Table 5.34 were discussed during focus groups. With regard to human capital theory, some students believed having a degree would improve their productivity. One student argued that knowledge he gained at the university had helped him to solve problems at his workplace [male final year student, UNID]. Another student pointed to transferable skills she got from doing projects – “it is not just academic stuff, there are things such as communication, how to do presentations” [female final year student, UNIA]. Another personal skill mentioned was working in a team while doing presentations.

There was also a view that some modules would be more important than others. For instance, English first year students (who were pursuing a degree in Business Studies) favoured accounting: “[Accounting] uses real life examples and we will be able to use it in

the future [female first year student, UNIA]. By contrast, Czech final year students (who were completing a Master degree) viewed accountancy and some other subjects (e.g. marketing) as a “waste of time...we would rather have more modules related to management or study languages which would be more beneficial for our future career” [female final year student, UNID]. Nevertheless, these findings, while interesting, need to be treated cautiously due to the small sample size.

While some students believed that they could increase their productivity, others remained sceptical. As one student stated – “university only gives you some basic knowledge and you have to find relevant work experience in order to get skills that are required by employers” [male first year student, UNID]. Some students complained about their lecturers – “we are being taught by people who never worked in industry so they cannot share any real world experience with us” [female final year student, UNID].

The second statement to support the human capital theory was related to students’ results although it is necessary to point out that under the screening hypothesis employers would also prefer graduates with “good” degrees. As was discussed in RQ3B, English students agreed that academic results can play important role in the graduate labour market. However, Czech students believed that having a “red” diploma would not make any difference. Some even suggested that it could hinder one’s career as there would be no time for “real world” experience during their studies.

Some students’ opinions supported the view that higher education is a screen. Some students believed that employers use diplomas as a proof of ability – “it’s official...it proves you can do well” [male first year student, UNIA]. Another student stated that “employers appreciate students’ perseverance” [final year male student, UNID]. A number of students said that degree is necessary to get a graduate job but it is not essential to perform the job:

- *“My sister-in-law has a degree in History and she works in marketing...[employers] did not really care what the degree was in”* [female final year student, UNIA].
- *“My friend studied History and German and he managed to get a role as a senior buyer. He had no background in business and economics but they told him his German was enough and they would teach him the rest”* [male final year student, UNID].
- *“My friend who studied sociology and German works as an administrative assistant for a large engineering company. The company’s only requirements were a degree and a good knowledge of German”* [female final year student, UNID].

Finally, students were asked how socio-economic background could influence one’s career. Generally, students believed in meritocracy – there were notions such as “if people work hard they have a chance” [female final year student, UNIA] ; “if you are determined you can

do it” [female first year student, UNIA] or “you can be successful no matter where you come from” [male first year student, UNIA].

Nevertheless, some students perceived their social class as a disadvantage – “I am from a working class family...my parents were supportive but they never really helped me [with my studies], I had to do it myself” [female first year student UNIA]. Another student shared a similar experience – “I was the first one in my family to go to university. My parents were against it because my brother was still in high school. They told me to find a job instead so I had to work part-time throughout my studies to support myself” [female final year student, UNID].

On the other hand, there were students who believed their personal background positively influenced their experience – “my parents work really hard...the jobs that they’ve got and the house we’ve got...this has made me more aspirational personally”. One student said she was brought up to “speak properly” and used her “high class English” during interviews [female final year student, UNIA].

Students’ financial situations were also mentioned briefly. For example, one student claimed that “not everyone can afford to go to a university like Oxford” [male first year student, UNIA]. While studying at public universities is free in the Czech Republic, there was a feeling that it could be too expensive for some students: “Students from poorer families might find it hard because student accommodation costs over 2,000 CZK per month but the maintenance grant is only 650 CZK per month. Then you also have to pay for public transport to get from part of the campus to another” [female first year student, UNID].

Some students also pointed to family connections – “it can help you to get a job if you know the owner of the company” [female final year student, UNIA]. Family connections were also beneficial during studies – you need to collect data from companies for your projects and dissertation so if you know somebody it saves you lots of time” [male final year student, UNID].

5.3.3 The effect of work experience on students’ earnings expectations (Group C)

This part of data analysis focuses on the impact of work experience on students’ expectations. The first question addressed in this section is whether students expect their earnings to grow with accumulated work experience. Secondly, the importance of students’ existing work experience is evaluated using several statistical methods. Students’ existing work experience is divided into part-time work during studies (RQ2C) and supervised work placement (RQ3C).

RQ1C: Is a positive link between salaries and work experience accumulation evident in students' expectations?

(Null hypothesis: There is no difference in mean expected earnings between different levels of work experience)

(Alternative hypothesis: There is a difference in mean expected earnings between different levels of work experience)

In economics, it is generally accepted that a worker's wage tends to increase with work experience (Mincer, 1974). In this section, it will be tested whether students expect their earnings to grow with accumulated work experience. When completing the questionnaire, students estimated their earnings expectations at two points in time – immediately after graduation (MEAG scenario) and ten years later (MEAG10 scenario). In addition, the first year students were also asked to consider potential earnings under the hypothetical scenarios where they had decided not to go to university (MEWD scenario) and ten years after completing A-levels/Maturita exam (MEWD10 scenario).

A paired-samples t-test was conducted to evaluate the impact of work experience on students' expectations. English students expected to earn a mean of £22,487 p.a. immediately after graduation (SD = 6459). After ten years in the labour market, they expected their earnings to rise by 83.9% to £41,355 p.a. (SD = 18503). The effect of work experience was less obvious in the MEWD10 scenario – students would expect to earn £24,099 p.a. (SD = 9877) with A-levels and ten years of work experience. The lowest expectations were recorded for the MEWD scenario with mean expected earnings of £16,088 p.a. (SD = 5290).

The t-test results (Table 5.36) show that the difference in expected earnings between different levels of work experience was statistically significant in the English sample. For pair 1 (i.e. MEAG – MEAG10 scenarios) the difference, -18867.57, with a 95% confidence interval ranging from -19599.06 to -18136.09, was significant $t(1877) = -50.587$, $p = .000$ (two-tailed). The eta squared (η^2) value of 0.812 suggests a large effect size according to Cohen's guidelines (Table 5.10):

Table 5.36 Paired samples Test/Work experience: English sample

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	MEAG- MEAG10	-18867.57	16163.12	372.97	-19599.06	-18136.09	-50.587	1877	.000
Pair 2	MEWD- MEWD10	-8010.39	8505.10	234.18	-8469.80	-7550.97	-34.206	1318	.000

Turning now to pair 2 (i.e. MEWD – MEWD10 scenarios), there was also a difference in means, -8010.39, (with a 95% confidence interval ranging from -8469.80 to -7550.97), which was significant $t(1318) = -34.21$, $p = .000$ (two-tailed). The eta squared statistic also indicated a large effect size ($\eta^2 = 0.686$).

Compared to their English counterparts, Czech students did not expect their earnings to grow as fast with work experience. They anticipated earning 21,266 CZK/month after graduation; ten years later they believed their earnings would rise by 57.5% to 33,485 CZK/month. The mean expected earnings for the MEWD scenario were 15,546 CZK/month and increased to 22,055 CZK/month for the MEWD10 scenario.

The results from the t-test are presented in Table 5.37. The difference in expected earnings of Czech students between different levels of work experience was statistically significant for both pairs. For pair 1 (i.e. MEAG – MEAG10 scenario) the difference, -12218.41, with a 95% confidence interval ranging from -12845.48 to -11591.33, was significant $t(1091) = -38.232$, $p = .000$ (two-tailed) and the eta squared ($\eta^2 = 0.757$) revealed a large effect size.

Table 5.37 Paired samples Test/Work experience: Czech sample

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	MEAG- MEAG10	-12218.406	10560.839	319.586	-12845.477	-11591.334	-38.232	1091	.000
Pair 2	MEWD- MEWD10	-6509.615	8327.365	333.361	-7164.264	-5854.967	-19.527	623	.000

For pair 2 (i.e. MEWD – MEWD10 scenario), there was also a difference in means, -6509.62, (with a 95% confidence interval ranging from -7164.26 to -5854.97), which was significant $t(623) = -19.527$, $p = .000$ (two-tailed) and the eta squared ($\eta^2 = 0.616$) signified a large effect size.

Going back to the original hypotheses postulated at the beginning of this section the null hypothesis (i.e. “There is no difference in mean expected earnings between different levels of work experience”) could be rejected since a significant difference in mean expected earnings between different levels of work experience was found in both the English and Czech samples.

RQ2C: Is there a difference in earnings expectations between students who have a part-time job during their studies and those who do not work?

(Null hypothesis: There is no difference in earnings expectations between students who have a part-time job and those who do not work)

(Alternative hypothesis: There is a difference in earnings expectations between students who have a part-time job and those who do not work)

In the literature review, it was hypothesised that students who work during their studies have better knowledge of the labour market and their earnings expectations are more accurate. Furthermore, students who accumulate work experience relevant to their future career might view this as their competitive advantage and expect higher earnings in return.

In this section, students’ earnings expectations were evaluated in the light of their work experience. The question on work experience, asked during the survey, was different for the first year and final year students. While the first year students were asked to simply state whether they work during their studies or not, final year students were asked to choose from four options which are presented in Table 5.38¹¹². Therefore, in this section, the first year¹¹³ and final year students’ answers are analysed separately.

112 The options and their numbering was further used during the post-hoc tests, which can be found towards the end of this subsection.

113 Only English sample is included here because the Czech version of the questionnaire, which had been used before this study started, did not contain the question on work experience.

Table 5.38 Coding of the part-time job during studies (final year students)

1	No – I am currently looking for a part-time job
2	No – I don't want to work during my studies
3	Yes – I have a part-time job relevant to my course
4	Yes – I have a part-time job unrelated to my course

For the former cohort, an independent-samples t-test was used since the independent variable (i.e. work experience) is a categorical variable with only two levels (i.e. yes or no). For the latter cohort, an independent variable “job during studies” was included in the regression models.

The independent-measures t-test showed no difference in earnings expectations between those first year students who had a part-time job and those who did not work during their studies. Full results can be found in Appendix 5.5. A point-biserial correlation, which is presented in Table 5.39, was carried out to assess the practical importance of the findings. The coefficients of determination (R^2) were small which indicates a weak association between work experience and earnings expectations - students' work experience could explain only up to 0.1% of the variability in earnings expectations.

Table 5.39 Point-biserial correlations/Job during studies: English sample (first year students)

		Job during studies	MEAG	MEAG10
Job during studies	r_{pb}	1	-.023	-.011
	R^2		.001	.000
	Sig. (2-tailed)		.397	.686
	N	1315	1315	1315

Moving now to the final year English sample I start the analysis with Figure 5.35 that shows average expected earnings according to students' work experience. It is apparent from the graph that the difference in expected earnings was negligible among the four groups. Unlike in the English sample, the earnings expectations of final year Czech students varied from group to group depending on students' level of experience. The data on earnings expectations presented in Figure 5.36 which shows that students with a part-time job relevant to their course had the highest earnings expectations in all three scenarios. Moreover, the earnings expectations of the rest of the cohort were very similar.

Figure 5.35 Job during studies and earnings expectations: English sample (final year students)

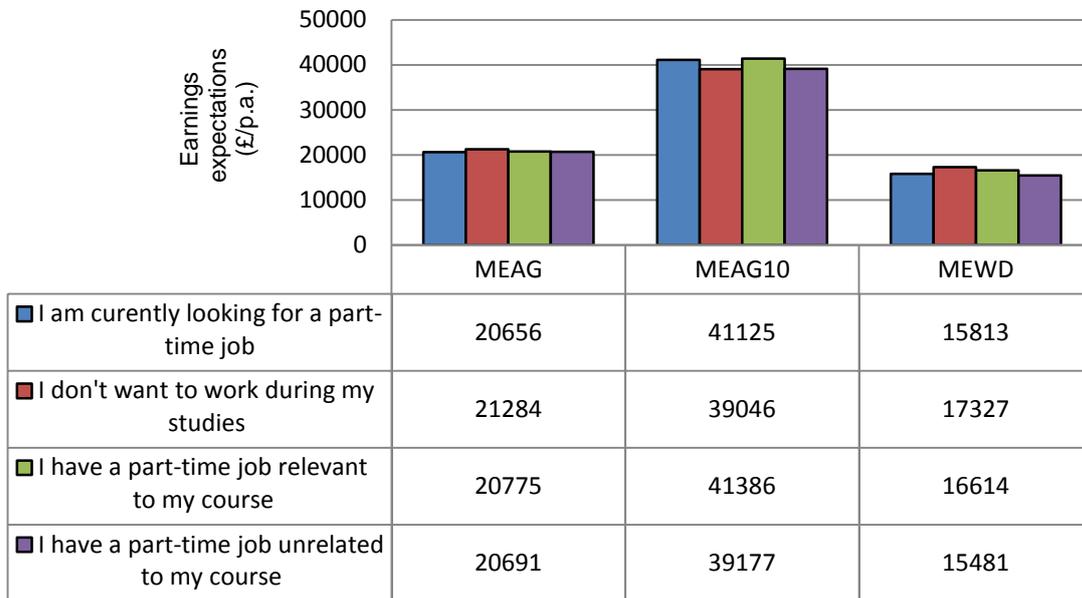
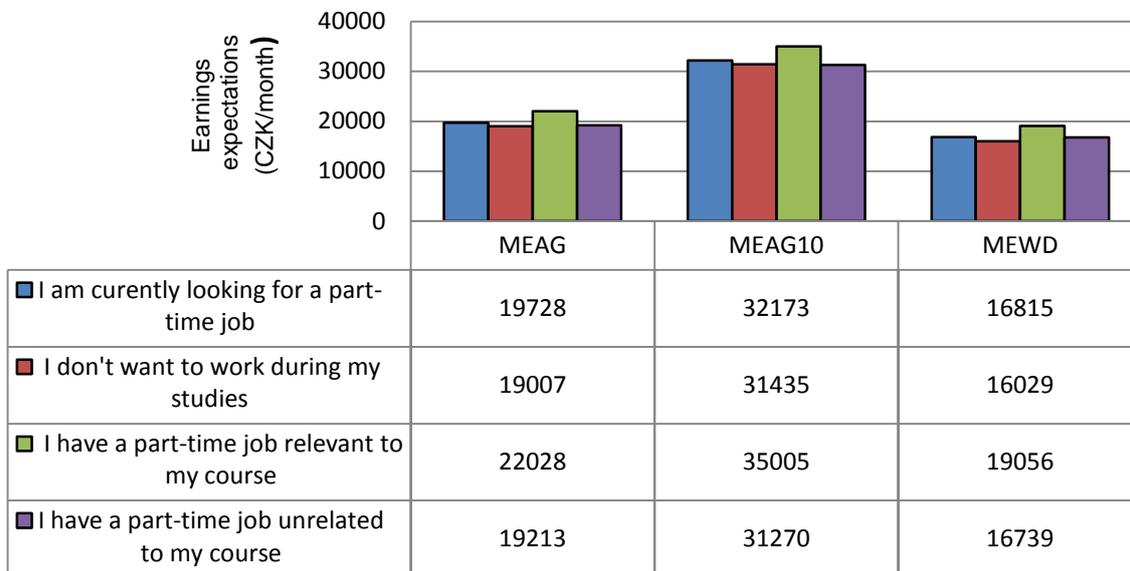


Figure 5.36 Job during studies and earnings expectations: Czech sample (final year students)



As noted above, an independent variable “job during studies” was added into the regression models. Students who either did not want to work during their studies or those who were looking for a part-time job were grouped together and used as a reference group. The results from the regression analysis are summarised in Table 5.40 which shows that the difference

in earnings expectations between final year students who had a part-time job and those who did not work during their studies was not significant. Moreover, no differences were found across the two countries (Appendix 5.2 and Appendix 5.3).

Table 5.40 Regression coefficients: Job during studies: Final year students (MEAG/MEAG10 scenarios)

Job during studies	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG scenario:						
No job vs. job relevant to studies	-468.73	654.59	-.015	.474	-1752.25	814.78
No job vs. job not related to studies	-288.82	513.51	-.012	.574	-1295.70	718.05
MEAG10 scenario:						
No job vs. job relevant to studies	1496.70	1706.62	.022	.381	-1849.61	4843.02
No job vs. job not related to studies	865.16	1338.78	.017	.518	-1759.91	3490.23

Finally, the eta squared (η^2) was calculated to assess the practical importance of the results. The value was less than 0.10 for both MEAG and MEAG10 scenarios, indicating only a trivial effect size¹¹⁴. Going back to the original hypotheses, the null hypothesis could not be rejected since no significant relationship was found between students' earnings expectations and their existing work experience.

RQ3C: Are earnings expectations of final year English students who had undertaken a supervised work placement different from the rest of the cohort?

(Null hypothesis: There is no difference in earnings expectations between final year English students who undertook supervised work placement and those who did not)

(Alternative hypothesis: There is a difference in earnings expectations between final year English students who undertook supervised placements and those who did not)

¹¹⁴ Using Cohen's criteria (Table 5.10).

Many universities in the UK offer so-called sandwich degrees where students spend a year in industry as a part of their studies. This work experience is believed to improve student's prospects after graduation in terms of securing a graduate job and obtaining a higher starting salary. Thus this section investigates whether supervised work experience has any impact on students' earnings expectations. Data were collected from the English sample only since the Czech universities that participated in this study do not offer a 12-month placement scheme.

It was indicated in the literature review that students who undertake a supervised work experience are more likely to obtain a first class honours degree. There are two possible explanations. Firstly, students who decide to undertake a supervised work placement might be more able and ambitious compared to those pursuing standard three-year courses. Secondly, the experience gained through the placement could have a positive impact on students' performance in their final year. Therefore the analysis starts with a simple cross-tabulation to see whether there is any association between supervised work placement and students' expected final grade. Table 5.41 reveals that students who did the placement also expected to achieve better results in their final year – 35.5% believed they would graduate with a first class degree. On the other hand, only 18.6% of students who did not undertake the placement expected a first class degree. Nevertheless, the nature of the cause and effect relationship between supervised work placement and expected final grade could not be analysed in this study since the data on prior academic achievement¹¹⁵ were not collected during the survey.

Table 5.41 Supervised work placement and expected final grade cross-tabulation: English sample (final year students)

		Expected final grade				Total
		First class	Upper-second class	Lower-second class	Third class	
Placement	No	18.6%	66.9%	12.9%	1.6%	100%
	Yes	35.5%	56.4%	7.6	0.5%	100%
Total		23.8%	63.7%	11.3%	1.2%	100%

Since there is the possibility of an interaction effect between two independent variables, an interaction variable “placement X expected final grade” was created and included in the

¹¹⁵ i.e. marks gained in Year 1 and Year 2

regression analysis; however, the interaction terms were not found to be statistically significant (the full results for the MEAG and MEAG10 scenarios are available in Appendix 5.2 and 5.3, respectively).

Students who undertook a placement had higher earnings expectations on average; however, the difference was negligible for the MEAG scenario (Table 5.42). For the MEAG10 scenario, students who had undertaken a supervised work placement expected to earn 14.1% more on average compared to those students who did not have such experience.

Table 5.42 Supervised work placement and expected earnings: English sample (final year students)

	Placement	N	Mean	Std. Deviation	Std. Error Mean
MEAG	No	387	20670.54	4815.708	244.796
	Yes	172	21340.12	4382.216	334.141
MEAG10	No	387	38175.71	16888.544	858.493
	Yes	172	43546.51	21523.702	1641.167

Table 5.43 Regression coefficients: Placement/English final year sample (MEAG/MEAG10 scenarios)

Supervised work placement	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG	148.14	894.05	.004	.868	-1604.90	-1901.17
MEAG10	3234.24	2330.92	.042	.165	-1336.19	7804.66

Table 5.43 presents the results from the regression analysis. Supervised work placement did not make a significant contribution to students' earnings expectations. While students who undertook a supervised work placement expected to earn more compared to those who did not, the observed differences between the two sample means were small and might be reasonably attributed to sampling fluctuations (i.e. sampling error). Therefore, the null hypothesis (i.e. "there is no difference in earnings expectations between final year English students who undertook supervised work placement and those who did not") could not be rejected.

To complete the statistical analysis, the point-biserial correlations were conducted to measure the strength of association between mean expected earnings (i.e. continuous

dependent variable) and supervised work placement (i.e. binary independent variable) (Table 5.44). For the MEAG scenario, supervised work placement could explain only 0.4% of the variance in expected earnings. The association was slightly stronger for the MEAG10 scenario where supervised work placement accounted for 1.8% of the variability in expected earnings.

Table 5.44 Point-biserial correlations/Supervised work placement: English sample (final year students)

		Placement	MEAG	MEAG10
Placement	r_{pb}	1	.066	.133**
	R^2		.004	.018
	Sig. (2-tailed)		.120	.002
	N	559	559	559

** . Correlation is significant at the 0.01 level (2-tailed).

The benefits of going on a placement were discussed during focus groups. Relevant work experience seemed to be the most important reason for undertaking a placement. One student believed that what he was taught at university was “too theoretical and not much practical” while on placement he had to use his own initiative to fix a problem “without going to a textbook” [male final year student, UNIA]. Another student added that going on a placement helped her to build her confidence [female final year student, UNIA]. Finally, placement experience was seen as an advantage in a competitive graduate labour market – “[companies] want to make sure they are getting someone who has got a bit of experience in marketing...if you haven’t got any then you are more than likely [to be] put at the bottom of the job pile” [male final year student, UNIA].

As mentioned earlier, a supervised work placement is not currently offered to Czech students at public universities. Nonetheless, a number of students said they would welcome such an option – “I would like to spend at least one term working for a company to see how a business operates on a daily basis rather than studying matrix organisation structure” [female final year student, UNID]. Another student added that an unpaid internship is obligatory at some private HEIs [male final year student, UNID]. Finally, some students believed that university should help them to find relevant work experience by making contact with potential employers.

5.3.4 Regional and national variations in students' earnings expectations (Group D)

The final part of the data analysis aims to shed some light on the impact of the labour market situation on students' expectations. Students' earnings expectations are first compared between institutions within the same country. Since there are regional differences in earnings in both countries the influence of expected graduate job destination was analysed. The final part examines differences between countries by comparing earnings expectations of Czech and English students.

RQ1D: Do earnings expectations vary among institutions within the same country?

(Null hypothesis: There is no difference in mean expected earnings between institutions within the same country)

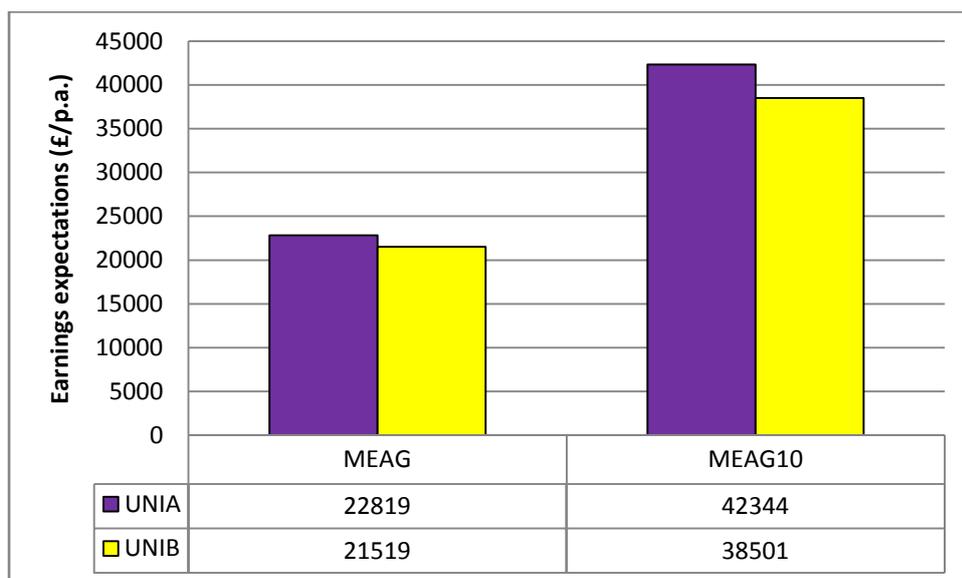
(Alternative hypothesis: There is a difference in mean expected earnings between institutions within the same country)

As noted earlier questionnaires were collected from students at two universities in England and two universities in the Czech Republic. Therefore place of study is another variable of interest that could possibly explain some of the difference in students' expectations. The analysis of the English sample shows average earnings expectations for the MEAG and MEAG10 scenarios (Figure 5.37). Students at UNIA had higher expectations on average in both scenarios; however, the observed difference in earnings expectations immediately after graduation was rather small.

This descriptive analysis was followed by an independent-samples t-test which revealed that there was a statistically significant¹¹⁶ difference in earnings expectations for the two scenarios. For the MEAG scenario the difference, 1299.939, with a 95% confidence interval ranging from 631.721 to 1968.156, was significant $t(1876) = 3.815$, $p = .000$ (two-tailed). For the MEAG10 scenario the difference, 3830.765, with a 95% confidence interval ranging from 1917.063 to 5744.466 was significant $t(1876) = 3.926$, $p = .000$ (two-tailed).

¹¹⁶ The α level was adjusted to $0.05/42 = 0.025$ (Bonferroni correction).

Figure 5.37: Place of study and earnings expectations: English sample



In order to find out whether these findings have any practical significance, point-biserial correlations were undertaken (Table 5.45). Overall, place of study could explain less than 1% of the variability in students' expectations. The highest value of correlation coefficient was found in the MEAG10 scenario where the place of study accounted for 0.8% of the variability in students' expectations.

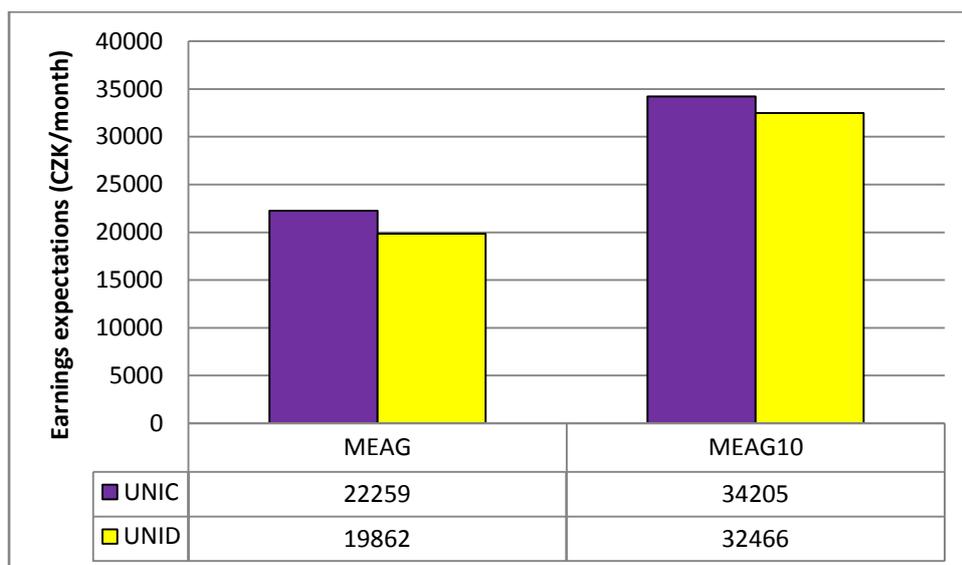
Table 5.45 Point-biserial correlations/Place of study: English sample

		Place of study	MEAG	MEAG10
Place of study	r_{pb}	1	-.088**	-.091**
	R^2		.007	.008
	Sig. (2-tailed)		.000	.000
	N	1878	1878	1878

Turning now to the Czech sample, students at UNIC had higher expectations on average for both scenarios; this is clearly illustrated in Figure 5.38. For the MEAG scenario the difference in expected earnings between UNIC and UNID, 2396.870, with a 95% confidence interval ranging from 1728.877 to 3064.852, was significant $t(1090) = 7.041$, $p = .000$ (two-tailed). The difference in means was not statistically significant¹¹⁷ for the MEAG10 scenario. The full results from the t-tests can be found in Appendix 5.6.

117 Bonferroni correction was used to adjust the α -level ($0.05/2 = 0.025$)

Figure 5.38: Place of study and earnings expectations: Czech sample



Point-biserial correlations were computed for the Czech sample and the output is presented in Table 5.46. For the MEAG scenario, place of study accounted for 4.4% of the variability in students' earnings expectations. For the MEAG10 scenario, the contribution of the "place of study" variable was below 1%.

Table 5.46 Point biserial correlations/Place of study: Czech sample

		Place of study	MEAG	MEAG10
Place of study	r_{pb}	1	-.209**	-.067*
	R^2		.044	.004
	Sig. (2-tailed)		.000	.027
	N	1092	1092	1092

Going back to the original hypothesis, there was a significant difference in earnings expectations immediately after graduation between English students at UNIA and UNIB and Czech students at UNIC and UNID. Thus, the null hypothesis (i.e. "there is no difference in mean expected earnings between institutions within the same country") could be rejected for this scenario. For the MEAG10 scenario, the null hypothesis could only be rejected for the English sample since no significant difference in earnings expectations was found between UNIC and UNID.

RQ2D: Do students' earnings expectations vary according to the intended location of the graduate job?

(Null hypothesis: There is no relationship between expected earnings and graduate job destination)

(Alternative hypothesis: There is a relationship between expected earnings and graduate job destination)

As a part of the survey, students were asked where they would like to work after graduation. Rather than using exact location, students' answers were grouped into five categories and the "home region" group was used as the reference category¹¹⁸. The coding of graduate job destinations is presented in Table 5.47. The average expected earnings of English students for each graduate destination are then displayed in Figure 5.39. Since RQ2D is concerned with graduate jobs only the MEAG and MEAG10 scenarios are considered in this section.

Table 5.47 Coding of the graduate job destination

Home region	1
Region of study	2
Capital (London/Prague)	3
Elsewhere in the country	4
Abroad	5

The descriptive analysis suggests that English students who intended to work either in London or abroad had slightly higher expectations on average. Figure 5.40 shows the mean expected earnings for the Czech sample - students who intended to work in Prague or elsewhere in the Czech Republic expected to earn slightly more compared to the rest of the sample. In order to find out whether there was a significant difference between means, a predictor variable "graduate job destination" was included into the regression models. The results are presented in Table 5.48.

¹¹⁸ First year students who chose the option "I don't know/I don't care" are not included in this part of analysis.

Figure 5.39 Graduate job destination and earnings expectations: English sample

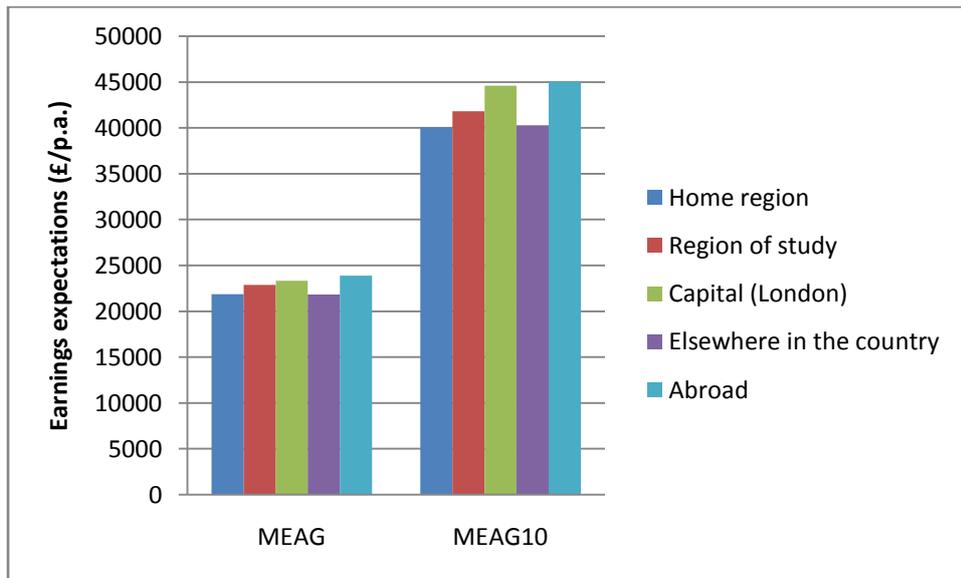
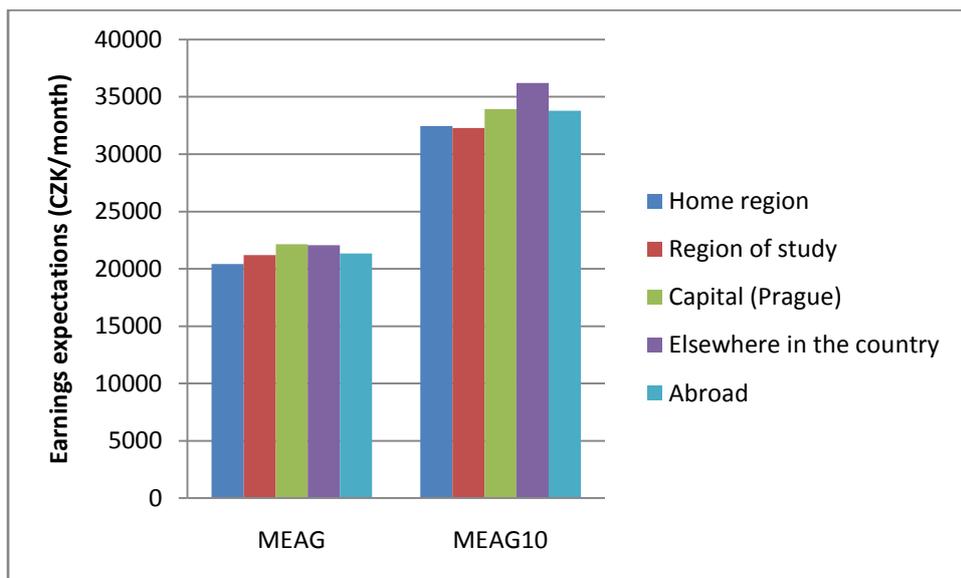


Figure 5.40 Graduate job destination and earnings expectations: Czech sample



For the MEAG scenario, there was a significant difference in earnings expectations between students who expected to work in their home region after graduation and those who expected to work abroad. Students who planned to move abroad after graduation had higher expectations ($M = 18029.69$, $SD = 9816.57$) compared to those who intended to stay in their home region ($M = 16946.51$, $SD = 8488.11$). For the MEAG10 scenario, a significant difference in earnings expectations was also found between students who planned to work in their home region and those who expected to work abroad. Moreover, the earnings expectations of students who intended to work in the capital city were significantly different

from those who expected to work in their home regions. Students who expected to work in their home region anticipated to earn less on average ($M = 30152.15$, $SD = 19907.82$) compared to those who intended to work in the capital city ($M = 33180.43$, $SD = 21728.75$) and those who were interested in moving abroad ($M = 33035.49$, $SD = 23708.50$).

Table 5.48 Regression coefficients: Graduate job destination (MEAG/MEAG10 scenarios)

Graduate job destination	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG scenario:						
Home region vs. region of study	1244.33	915.63	.046	.174	-551.02	3039.68
Home region vs. capital city	45.00	452.20	.002	.921	-841.66	931.66
Home region vs. elsewhere in the country	-840.76	505.60	-.031	.096	-1832.05	150.54
Home region vs. abroad	1030.92	435.92	.040	.018	176.16	1885.67
MEAG10 scenario:						
Home region vs. region of study	1110.83	2387.18	.019	.642	-3569.91	5791.58
Home region vs. capital city	2312.26	1178.94	.040	.050	.60	4623.91
Home region vs. elsewhere in the country	17.46	1318.07	.000	.989	-2566.99	2601.91
Home region vs. abroad	3666.10	1136.52	.065	.001	1437.63	5894.56

To find out whether the differences were significant across the two countries an interaction variable “graduate job destination X country” was created. As can be seen from Table 5.49, the moderation effect was significant when the earnings expectations of those who expected to stay in their home region and those who planned to move abroad were concerned. This finding applies to both the MEAG and MEAG10 scenarios. The b value was negative – the effect of graduate job destination on earnings expectations decreases as the country gets

larger [i.e. change from 0 (England) to 1 (Czech Republic)]. In other words, the association between graduate job destination and earnings expectation was stronger in the English sample. The moderation effect was significant in the MEAG10 scenario only when the differences in earnings expectations between students who intended to work in their home regions and those who planned to move to the capital city were considered.

Referring back to the hypotheses stated at the beginning of this section, the null hypothesis can be rejected since a significant relationship between graduate job destination and earnings expectations was found.

Table 5.49 Regression coefficients: Graduate job destination X Country (MEAG/MEAG10 scenarios)

Graduate job destination X Country	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG scenario:						
Home region vs. capital city X Country	-1218.29	672.92	-.028	.070	-2537.74	101.16
Home region vs. abroad X Country	-1317.75	660.97	-.032	.046	-2613.76	-21.74
MEAG10 scenario:						
Home region vs. capital city X Country	-4614.81	1754.40	-.049	.009	-8054.82	-1174.81
Home region vs. abroad X Country	-4191.36	1723.24	-.047	.015	-7570.26	-812.45

Graduate job destinations were also discussed during focus groups. There were students at both UNIA and UNID who planned to stay within the region – “I would like to stay locally and just travel...there are opportunities in Manchester” [female first year student, UNIA]. Another student said he would not like to go further up than Leeds [female final year student, UNIA]. There were three students who would stay in the region if there were relevant job opportunities available to them after graduation.

Some students wanted to be close to their families – “I am moving back to the North-West where I come from” [male final year student, UNIA]. One Czech student stated she was going to look for a graduate job in Brno because her partner lives there [female final years

student, UNID]. Another student planned to move to the UK where his uncle ran a business [male first year student, UNID].

From their responses Czech students seemed to prefer large cities including Brno which is the second largest city in the Czech Republic:

- “I like Brno as it offers many job opportunities” [male final year student, UNID]
- “Brno and Prague are my favourite cities” [male final year student, UNID]
- “I am moving to Prague after graduation” [female first year student, UNID].
- “There is a high unemployment rate in this region so I would move to either Prague or Brno” [male first year student, UNID].

On the other hand, English students showed little interest in working in London – “I prefer to stay away from the London area because it is too expensive” [female final year student, UNIA].

Moving abroad was a popular option mainly for first year students. For Czech students, English speaking countries (including the UK and the US) were at the top of the list. One student said she was planning to do her Masters in France and settle there after graduation [female first year student, UNID]. Another student decided to move to Vienna [first year final year student, UNID]. By contrast, English students appeared to be more reluctant to leave the country:

- “I would not move abroad unless it was a really good opportunity” [male first year student, UNIA]
- “I would never move out of England” [male first year student, UNIA]
- “I would only move somewhere English speaking” [female final year student, UNIA]
- “I would not go abroad to work” [female first year student, UNIA].

Those students who would be willing to move abroad mentioned the US and Dubai as possible graduate job destinations.

RQ3D: Is there a difference in earnings expectations between Czech and English students?

(Null hypothesis: There is no difference in mean expected earnings between Czech and English students)

(Alternative hypothesis: There is a difference in mean expected earnings between Czech and English students)

It was revealed in RQ1D that students' earnings expectations were different among surveyed institutions within the same country. In this section, I investigate whether earnings expectations vary between the two countries. As discussed earlier (section 5.3.1), in order to make a comparison, it was necessary to convert all expected earnings into the same currency.

The variable "country of study" was included into the regression models and the summary of the results is provided in Table 5.50.

Table 5.50 Regression coefficients: Country of study (MEAG/MEAG10 scenarios)

Country of study	b	Std. error	Std. β	Sig.	95% confidence interval for b	
MEAG	-22612.89	2763.01	-.598	.000	-28030.56	-17195.23
MEAG10	-13238.88	1059.78	-.764	.000	-15316.88	-11160.88

The differences in earnings expectations between Czech and English students were found to be significant in both scenarios. The b value was negative which means that Czech students expected to earn less on average compared to their English counterparts. Moreover, the predictor variable "country of study" had the largest standardised β coefficients in both scenarios. In other words, this independent variable made the highest contribution to the models' explanatory power. However, this was to be expected given the different price levels across the two countries.

The final step was to perform point-biserial correlations to find out how much of the variability in students' expectations can be explained by the independent variable "country of study". As can be seen from Table 5.51, the "country of study" accounted for 27.9% (MEAG scenario) and 18% (MEAG10 scenario) of the variability in students' earnings expectations.

Going back to the original hypotheses, the null hypothesis (i.e. "there is no difference in mean expected earnings between Czech and English students") can be rejected since earnings expectations of English students were found to be significantly different from Czech students.

Table 5.51 Point-biserial correlations: Country of study (English and Czech samples)

		Country of study	MEAG	MEAG10
Country of study	r_{pb}	1	-.528**	-.424**
	R^2		.279	.180
	Sig. (2-tailed)		.000	.000
	N	2970	2970	2970

5.3.5 Summary

This chapter presented the findings of this study. Multiple regression analysis was used to analyse students' earnings expectations immediately after graduation and after 10 years in the labour market. Several independent variables were found to make a significant contribution to the regression models. Some of the predictors included in the regression models were found in previous research to have an impact on students' expectations (e.g. gender). This study has also included several variables (e.g. study abroad, supervised work placement, expected type of employment) which have not been (to my knowledge) previously analysed within the context of students' earnings expectations. The full results of the regression analysis can be found in Appendix 5.2 (MEAG scenario) and Appendix 5.3 (MEAG10 scenario).

For earnings expectations immediately after graduation the model could explain 71.3% of the variability in earnings expectations. The adjusted R^2 value (.705) was very close to the value of R^2 (.713)¹¹⁹. Therefore, the cross-validity of the model was good. Moreover, the F-ratio¹²⁰ was greater than 1 and statistically significant ($p < .001$). Therefore, these results can be interpreted as meaning that the model significantly improved the ability to predict students' earnings expectations compared to not fitting the model. For the second scenario (MEAG10), the model could explain 59.1% of the variability in earnings expectations. The difference between the value of R^2 and the adjusted R^2 value was small (.011 or 1.1%). The F-ratio was 52.18 in this case and statistically significant ($p < .001$). Thus, it can be concluded that in both scenarios fitting the regression models resulted in a better prediction of the outcome compared to using the mean as an estimate of students' earnings expectations.

119 The difference between these two values is .008 or 0.8%. This means that if the model was derived from the population rather than a sample it would account for approximately 0.8% less variance in the outcome (Field, 2013).

120 F-ratio represents "the ratio of the improvement in prediction that results from fitting the model, relative to inaccuracy that still exist within the model" (Field, 2013: 337).

In the following chapter the findings of this study are discussed in relation to the research objectives and linked back to the literature review.

CHAPTER 6: DISCUSSION OF THE FINDINGS

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6.1 Introduction

Chapter 5 presented the findings of this study. The purpose of this chapter is three-fold. Firstly, the results which have been found are discussed in relation to the research objectives. Secondly, this chapter provides possible explanations for the findings. Finally, the findings are linked back to the literature review to show how this study contributes to the body of existing knowledge on students' labour market expectations.

6.2 Discussion of the results

Historically, economists have been reluctant to collect subjective data on earnings expectations (Dominitz and Manski, 1996). One of the underlying questions is whether students can meaningfully predict their future earnings. For instance, Jerrim (2008, 2011) has found that UK full-time students overestimate their average starting salaries by approximately 15%. Therefore, it is useful to first compare students' earnings expectations with the realised salaries of recent business studies graduates. The average starting salaries for recent business graduates at UNIA and UNIB are £18,800 p.a. and £19,000 p.a., respectively¹²¹. Students who participated in this study had higher expectations. Students at

¹²¹ These figures were calculated using information provided by Unistats (2017). The average salaries were calculated for graduates who completed their degree in Business Management, Business Studies, Marketing or Accounting. It should be noted that while this study focused only on home students (i.e. British and small number of EU students), the Unistats data also include international students.

UNIB anticipated an average salary of £21,519 p.a. immediately after graduation which is 13.3% more compared to the salaries of recent graduates. Their counterparts at UNIA expected to earn £22,819 p.a., thus “overestimating” the starting salary by 21.4%.

Turning to the Czech sample, it is more difficult to evaluate the accuracy of students’ earnings expectations since there is no available data on graduates’ starting salaries. A longitudinal study focusing on the average earnings of graduates five years after graduation has been published; however, this study used a self-selected non-probability sampling which means its participants might not be representative of the entire graduate population. According to its results, graduates from UNIC earn on average 35,371 CZK/month five years after graduation; by contrast, the average earnings of those who graduated from UNID are notably lower at 26,453 CZK/month (Kvačková, 2015). In other words, graduates from UNIC earn 33.7% more on average compared to graduates from UNID.

At UNIC the average expected earnings immediately after graduation (MEAG scenario) and ten years after graduation (MEAG10 scenario) were 22,259 CZK/month and 34,205 CZK/month, respectively. Students at UNID expected to earn 19,862 CZK/month under the MEAG scenario and 32,466 CZK/month under MEAG10 scenario. The difference in expected earnings between UNIC and UNID was 12.1% for the MEAG scenario and 5.4% for the MEAG10 scenario. Thus students’ expectations did not reflect the differences in realised graduate salaries. To explain this discrepancy, it has been suggested that students have a good understanding of the graduate labour market but they tend to distort their own future salary (e.g. Jerrim, 2011; Menon et al., 2012). Alternatively, as pointed above, the data on realised earnings of Czech graduates may not be accurate due to self-selection bias.

It is also noteworthy that students’ expectations did not increase significantly over the years, as one might expect. On the contrary, the first cohort of students (surveyed in 2011/2012) had the highest expectations for some scenarios (namely MEAG10 and MEWD in the English sample and MEAG and MEAG10 in the Czech sample). In the English sample, the increase in expected starting graduate salaries was only 2.3% between the academic years 2011/2012 and 2014/2015. One of the possible explanations is the effect of the global financial crisis and resulting uncertainty. According to the OECD (2014), wages were stagnant across the OECD countries between 2010 and 2013 and the real (inflation-adjusted) wages fell in the UK during that period. The real earnings started to recover in 2015 when they grew by 2.8% (Cadman, 2015). Therefore, students’ earnings expectations during the survey period seem to reflect the labour market situation. Moreover, students in England who started their courses in 2012/2013 or later had to pay higher tuition fees; yet

their earnings expectations were very similar to those who started their studies prior to 2012. These findings could imply that in England the perceived value of a degree has declined since 2012/2013.

Turning now to the Czech sample, students' expectations were also very similar across the surveyed years. Again, the consequences of the financial crisis could help to explain this finding. In terms of real wage growth, the Czech Republic also experienced a sharp deceleration between 2008 and 2015 (OECD, 2016b). Another possible explanation could be the increasing number of young people entering HE – the Czech graduate labour market might be reaching saturation point. Czech students who participated in focus groups indeed expressed their concerns about the increasing number of graduates and its impact on the labour market.

6.2.1 Students' personal characteristics and labour market expectations (Group A)

One of the objectives of this study was to determine which demographic factors influence students' earnings expectations. There were five variables analysed, including gender, age, ethnicity, parental education and parental income.

The existence of a gender pay gap in both the UK and the Czech Republic has been well documented in the literature (e.g. Smetherham, 2006; Wilton, 2007; Ramsey, 2008; Chevalier, 2011; Furnham and Wilson, 2011; Wilton, 2011; Nekuda and Sirovátka, 2012; Purcell et al., 2012; Britton et al., 2016). In this study, both English and Czech male students had higher earnings expectations than female students which is in line with previous research (e.g. Smith and Powell, 1990; Blau and Ferber, 1991; Wolter and Zbinden, 2002; Botelho and Pinto, 2004; Brunello et al., 2004; Webbink and Hartog, 2004; Filippin and Ichino, 2005; Speed, 2007; Carasso et al., 2012; Menon et al., 2012, Frick and Maihaus, 2016). While the difference in expected earnings for male and female students was statistically significant, the actual difference was rather small in the English sample. Gender could explain 2.7% of the variability in earnings expectations in the MEAG10 scenario which was the highest contribution found. In the Czech sample, gender held a greater deal of explanatory power as it accounted for 7.6% of the variability in the MEAG10 scenario.

One of the interesting findings related to gender is the fact that in both countries the gender pay gap in students' expectations had a tendency to increase over time. Brunello et al. (2004), who also compared students' expectations immediately after graduation and ten years after graduation, observed a similar trend. They offer two plausible explanations. Their first explanation suggests that female students expect to "end up in jobs with substantially lower earnings growth" (Brunello et al., 2004: 1128). However, it is not clear whether women

expect to get lower-paid jobs due to their own choice or whether they expect to be discriminated against by potential employers. During the focus groups, some students argued that women are generally not interested in top positions [i.e. positions which are highly-paid]. Thus, the expected gender pay gap could reflect choices made by male and female graduates given their different societal roles. On the other hand, some female students who participated in focus groups were worried about their career prospects after graduation arguing that [male] employers have a preference for male graduates. This “taste” discrimination is described in the literature as the crowding hypothesis. According to this model, employers discriminate against women by excluding them from occupations that are considered to be “male” jobs; this results in women being crowded into “female” occupations where they receive lower wages (Sorensen, 1990).

Human capital theory is based on the premise that wages are determined by the amount of human capital which individuals possess; this includes not only skills and knowledge acquired at school but also accumulated work experience (Mincer, 1974). It is necessary to bear in mind that human capital theory was developed in the 1960s when the labour force was dominated by men (McKenzie Leiper, 1993). Thus, it has been traditionally suggested that women’s wages are lower due to their (sometimes complete) withdrawal from the labour market to bear and raise children. This view has been modified to account for the increasing participation of women with dual careers in the labour force. According to Becker (1985), women with children are less productive in the workforce because they assume greater responsibility for child rearing and devote more energy to household duties than men.

Therefore, the lower earnings anticipated by female students 10 years after graduation could be due to their expectations to take a career break to look after children. This was also discussed during the focus groups. Some Czech female students were worried that possible maternity leave would hinder their career development; however, no such fear was apparent among English female students. This difference can be interpreted in two ways. Firstly, Czech students are older when they leave university (24 years old on average) compared to their English counterparts who typically graduate at the age of 21. Moreover, Czech female graduates are more inclined to start a family soon after graduation without building their career first, the average age of first-time mothers who completed university is 27.3 years (Hübelová, 2017). By contrast, female graduates in the UK enter motherhood at the age of 30 on average (Centre for Population Change, 2015) which gives them more time for their careers to develop. Secondly, there is a substantial difference between the UK and the Czech Republic in terms of maternity leave policy. While paid maternity leave in the UK lasts only for 39 weeks, Czech parents can take up to four years of paid parental leave. A longer

absence from the labour market may reduce an individual's human capital and make it more difficult for women to resume their career after maternity leave.

The second variable of interest was related to students' age. Rather than using students' actual age, students' seniority (i.e. proximity to graduation) was taken into account. The earnings expectations of the first year students were compared to those of final year students. There are only a handful of studies that have adopted a similar approach (Betts, 1996; Botelho and Pinto, 2004; Brunello et al., 2004; Jerrim, 2011; Alonso-Borrego and Romero-Medina, 2014).

Both English and Czech first year students who participated in this study had higher earnings expectations after graduation and 10 years later compared to their final year counterparts; however, the difference in means was statistically significant only for the MEAG10 scenario and no significant difference was found across the countries. Taking into account the data on realised salaries of recent graduates, which were presented earlier, the expectations of final year English students were more realistic, albeit slightly overestimated¹²². The difference between first year and final year students was also evident during focus groups. Czech final year students at UNID suggested a rather low initial salary of 16,000 CZK/month. They believed that there were no suitable graduate employers and the unemployment rate was high within the region. By contrast, Czech first year students believed they could earn up to 25,000 CZK/month in their first graduate job. A similar pattern was observed in the English sample. While some first year students expected the minimum wage, others were confident they could get a job with a starting salary of £20,000 per year. With regard to final year English students, only those who had undertaken supervised work experience expected to earn £20,000 per year in their first job.

Previous studies have also found that first year students have higher and less realistic earnings expectations than final year students (e.g. Betts, 1996; Botelho and Pinto, 2004; Brunello et al., 2004; Jerrim, 2011; Alonso-Borrego and Romero-Medina, 2014). One of the possible explanations is that students learn more about their own abilities as they move through their studies and they adjust their initial expectations accordingly (Betts, 1996; Zafar, 2011). Alternatively, final year students have had more time to gather information about the labour market situation and some of them may have already started looking for a graduate job (Smith and Powell, 1990; Brunello et al., 2004; Dickson and Harmon, 2011).

¹²² As noted earlier, there is no data available on graduate starting salaries in the Czech Republic; therefore, it is not possible to evaluate how accurate students' expectations are.

Another variable analysed in this study was students' ethnicity. One needs to be reminded at this point that the Czech sample was ethnically homogenous and therefore ethnicity was not included in the analysis. The number of ethnic minority students at UK universities has been steadily increasing. In this study, students from ethnic minorities represented 40.2% of the English sample. More than a quarter of participants (27.2%) identified themselves as Asian British. Nevertheless, the effect of ethnicity on students' earnings expectations has been mostly overlooked in previous research. There are only two known studies on students' earnings expectations that have considered ethnicity (Speed, 2007; Jerrim, 2008). In both studies, ethnic minority students expected to earn more in their first career job compared to their white British peers.

Graduates from ethnic minorities have been found to be less successful in terms of their employment rates and earnings (Connor et al., 2004). In this study black British, Asian British and "other" students expected to earn significantly more than their white British peers both immediately after graduation and 10 years later. It is also noteworthy that the expected earnings for the two remaining scenarios (i.e. MEWD and MEWD10) were very similar. This suggests that ethnic minority students anticipated greater financial returns to their degree. Similar results were obtained by Speed (2007) and Jerrim (2008: 16) who observed that "[ethnic minority students] tend to be more optimistic about their future earning potential than their white peers". The higher earnings expectations of ethnic minority students possibly could be explained by their motivations for entering HE. As Connor et al. (2004) revealed, prospective ethnic minority students place a greater emphasis on economic gains than do white British students.

Turning now to social class, it has been acknowledged that in the UK socio-economic background has an impact on educational and labour market outcomes (e.g. Purcell et al., 2002; Brennan and Shaw, 2003; Greenbank, 2006; Crawford and Vignoles, 2014). It has been documented that young people from poorer families are less likely to study at university and if they do they tend to study locally and attend a less prestigious institution (Brennan and Shaw, 2003; Greenbank, 2006; Greenbank, 2009; Shepherd, 2009). Graduates from less affluent families also have a lower probability of being employed in a graduate job and they earn less on average (Purcell et al., 2002; Brennan and Shah, 2003; Crawford and Vignoles, 2014; Behle, 2016; Britton et al., 2016). Parental income has also been found to have an effect on students' earnings expectations. Students from poorer backgrounds tend to have lower earnings expectations than their peers from more affluent families (Webbink and Hartog, 2004; Jerrim, 2008; Delaney et al., 2011; Menon et al., 2012).

On the other hand, social class is largely irrelevant in the Czech Republic due to its history. Under communist rule, private enterprises were abolished and wages were kept artificially at similar levels. This resulted in a relatively equal distribution of income. With the so-called Velvet Revolution of 1989, the country has started moving towards the sort of social class system which exists in most capitalist countries. Nevertheless, income distribution still remains more equal compared to other European countries.

It should be noted that social class remains an embarrassing topic for discussion. As Sayer (2002) puts it, “What class are you” is not an easy question. There is no consensus about how to divide students according to their social class (Morey et al., 2003). While Barfield (2012) used eligibility for free school meals as an indicator of poverty, Greenbank and Hepworth (2008) focused on the occupational status of parents to identify working class students. Another possibility is to use students’ home postcode to identify their social background. Nevertheless, since this study focused on two countries, it was necessary to use measures that would be easily applicable and comparable across the two countries¹²³. Therefore, to “identify” students’ social class in this study, parental income and parental education were used as a proxy.

Starting with parental income, descriptive data analysis suggested a positive relationship between earnings expectations and parental income. In other words, the higher the parental income, the higher were the students’ expectations. 10 years after graduation, students with high-income parents expected to earn more than students with low-income parents. Mother’s level of income was not found to be statistically significant for the MEAG scenario; however, students with medium-income fathers expected to earn more compared to students with low-income fathers. No significant differences in the relationship between parental income and students’ expectations were found across the two countries.

A number of previous studies have obtained similar results and have concluded that students from more affluent backgrounds expect to earn significantly more after graduation (Webbink and Hartog, 2004; Jerrim, 2008; Delaney et al., 2011; Menon et al., 2012). The underlying question is why the positive correlation between family income and students’ earnings expectations occur. When forming their expectations, it is likely that some students would use their parents’ income as a benchmark for their own future earnings. Another explanation is related to students’ social capital. As Triventi (2013) notes, students from privileged backgrounds tend to have ties to more influential people. Consequently, students

¹²³ There is no national “free school meal” policy in the Czech Republic. In terms of postcodes, one postcode tends to cover large area (usually whole town/city).

with connections to potential employers might be able to negotiate a more lucrative starting salary.

Turning to parental education, father's level of education was not found to have a significant impact on students' earnings expectations. On the other hand, mother's level of education was found to be a significant predictor in both MEAG and MEAG10 scenarios. One interesting finding was that the lowest levels of mother's education¹²⁴ (i.e. "no formal education" or "compulsory" education) were associated with higher earnings expectations in the MEAG scenario¹²⁵. It could be argued that students from the least educated households are the least likely to have sufficient knowledge of the graduate labour market and therefore overestimate graduate starting salaries.

Parental education also seemed to play an important role in students' decisions to attend university. Discussion with students during focus groups revealed that students with highly educated parents were expected by their families to get a degree. On the other hand, some first-generation university students felt somewhat disadvantaged as their parents, while supportive, could not provide any financial or practical help.

6.2.2 The role of education in students' labour market expectations (Group B)

The second part of the data analysis evaluated the role of education in students' expectations. Human capital theory, which is based on the neoclassical school of thought, assumes that individuals seek to maximise their own economic interests. Therefore, individuals invest in their education in order to increase their future earnings. One of the questions then was whether students expect their earnings to increase with education.

First year students estimated not only their earnings after graduation but they were also asked how much they would expect to earn had they decided not to go to university but to find a job instead. The first year English students expected to earn 44% more after graduation compared to what they would expect to earn with A-levels only. A similar result was obtained for the Czech sample where the first year students believed that having a degree would increase their earnings by 43%. The gap in expected earnings was even more pronounced between the MEAG10 and MEWD10 scenarios. After ten years in the labour market, the first year English students expected to earn 74% more compared to what they would expect had they decided not to go to university. In the Czech sample, the difference in earnings expectations between MEAG10 and MEWD10 was 53%. The difference in means

¹²⁴ It should be noted that the number of cases was rather small in this category which could possibly distort the results.

¹²⁵ This negative relationship between parental education and earnings expectations was also observed for father's level of income but the differences in expected earnings were not found to be statistically significant in this case.

was statistically significant for both pairs (i.e. MEWD – MEAG and MEWD10 – MEAG10) in both the Czech and English samples.

The positive relationship between educational attainment and level of income has been acknowledged by social researchers (e.g. Ferrer and Riddell, 2002; Bills, 2003). Students who participated in this study also believed that higher levels of education would be associated with higher levels of income. According to human capital theory, students will undertake HE if the expected wage gain exceeds the costs (both direct and opportunity costs) of obtaining a degree (Gemmel, 1997).

While this study has not calculated the expected returns to HE, the first year Czech students believed that their degree would start paying off 11 years after graduation¹²⁶. The first year English students who started their course in 2012¹²⁷ or later believed the forgone earnings would be recovered within seven years of graduation¹²⁸. It was not possible to calculate the direct costs of HE for English students since both tuition fee and interest charged on tuition fees loans are variable. Nevertheless, graduates only have to repay 9% of any income above the £21,000 threshold. After taking into account the loan repayments it is clear that first year English students anticipated a large graduate premium both immediately after graduation (i.e. £6,886 p.a.) and after ten years in the labour market (£16,033 p.a.). It can be thus argued that after comparing the perceived costs with perceived benefits students made a rational choice to enter HE (e.g. Tomlinson, 2008). However, the notion of students as rational investors in education has been challenged by a number of writers (e.g. Manski, 1993; Ehrenberg and Smith, 2011; Brynin, 2012).

Human capital theory views [higher] education as a pure financial investment. While future monetary gains are undoubtedly an important reason for pursuing a degree, there are other factors which should not be overlooked. Students who participated in focus groups had various motivations for entering HE. Some had purely instrumental motivations – they believed that a degree would improve their career prospects and increase their earnings potential which is in line with human capital theory. However, for some students, it was a

126 Czech students do not face many direct costs since there are no tuition fees. There are grants available to help with the costs of living. Therefore the main costs incurred are forgone earnings. The mean expected earnings for the MEWD scenario were 15,546 CZK/month, the typical length of study is 5 years. Therefore, forgone earnings were equalled to $15,546 \times 60 = 932,760$ CZK. The expected graduate premium was 6,734 CZK/month within the first ten years after graduation and increased to 12,315 CZK/month after ten years in the labour market. Using these figures it would take approximately 11 years on average to recover forgone earnings. The net present value was not applied here since students were asked to estimate their earnings using current price levels

127 Different tuition fees were charged prior to the academic year 2012/2013.

128 The forgone earnings equalled $16,088 \times 3 = £48,264$. Students have to repay their loans once their income exceeds £21,000 per year. The mean expected earnings in the MEAG scenario were £23,170. This would give a repayment of £195 per year. The net expected graduate premium for the first ten years after graduation is then £6,886 per year. Thus, it would take 7 years on average to get back the forgone earnings.

family tradition to go to university. Students seemed to be influenced not only by their families but also by their friends. Thus, students' social and cultural capital, which is mostly ignored by human capital theory, can help to explain students' decision whether to study or not. Finally, there was a notion that going to university was a "done thing" for their generation and some students simply wanted to experience student life and have fun before entering the labour market. Therefore, these students viewed HE as a consumption good rather than an investment in human capital.

Another level of education considered in this study was a postgraduate degree. The existence of a postgraduate premium is well-established in the literature (e.g. Conlon and Patrignani, 2011; Walker and Zhu, 2011; Lindley and Machin, 2013). Students in the English sample were asked whether they planned to pursue a Master degree, PGCE or doctorate. Czech students traditionally leave HE with a Master degree; hence they were asked about their plans to do a PhD during focus groups. There was a clear divide between first year and final year English students – first year students were more open to the idea of continuing their studies beyond Bachelor degree.

There was a negligible difference in earnings expectations between those English first year students who planned to do a Master degree and those who intended to work after graduation. This was true for both the MEAG and MEAG10 scenarios.¹²⁹ On the other hand, final year students who planned to continue their studies expected to earn more for both the MEAG and MEAG10 scenarios (12% and 14% respectively). Nevertheless, these results did not reach statistical significance and expected postgraduate studies could explain less than 1% of the variability.

The small effect of postgraduate degrees on students' earnings expectations could possibly be explained by students' motivations to continue their studies; these were discussed during focus groups. Rather than directly increasing their future earnings, some students intended to pursue a Master degree to avoid unemployment during the recession and improve their chances of getting a graduate job. Indeed, there has been an increase in postgraduate students numbers in the UK as a response to difficult labour market conditions (National Union of Students, 2009). This finding supports the signalling hypothesis (i.e. students use educational credentials to signal their abilities to employers and pursue a Master degree to stand out from the crowd).

¹²⁹ The focus was on the effect of a postgraduate degree thus MEWD and MEWD10 scenarios were not included in this section.

Nevertheless, some students would continue their studies because they did not know what else to do. From the human capital theory perspective, this finding suggests that students' decisions to invest in postgraduate studies is not rational and leads to an overinvestment in education. Finally, some students perceived postgraduate studies as a way to prove themselves academically. In other words, for some students, the non-financial benefits of attending university (i.e. a feeling of self-fulfilment and increased self-esteem) seemed to be more important than the financial benefits of completing a postgraduate degree. This points out to one of the limitations of human capital theory which does not take into account the non-monetary benefits of HE.

A number of previous studies have found a positive relationship between individual ability and graduate salaries (e.g. Smetherham, 2006; Ramsey, 2008; Conlon and Patrignani, 2011; Walker and Zhu, 2011; Feng and Graetz, 2013). In other words, obtaining a "good" degree (i.e. at least upper-second class) is rewarded in the UK labour market. In this study, final year students in the English sample were asked what final grade they expected to achieve. The main shortcoming of this approach was students' tendency to overestimate their final grades as 87.5% of them expected at least an upper-second class award when, in reality, only 70.9% of students at UNIA¹³⁰ and 65.8% of students at UNIB achieve such results.

Nevertheless, the positive impact of academic achievement on future earnings was evident in students' expectations. Students who expected to obtain a first class degree had the highest earnings expectations both immediately after graduation and 10 years later. Previous research on the effect of perceived academic ability on earnings expectations is limited; however, the two known studies also found high-achieving students to have higher salary expectations (Brunello et al., 2004; Frick and Maihaus, 2016).

Having a "good" degree was perceived as a necessity among first year English students suggesting that students are aware of employers' hiring practices. There was a general belief that graduate employers use degree classification as a selection criterion in a saturated labour market. In other words, these students believed that degree classification has a signalling value in the labour market. On the other hand, final year students who had undertaken supervised work experience and thus had some experience with the recruitment process were of the opinion that the importance of degree classification is relative and depends on the role, type of company and number of applicants.

¹³⁰ This figure (based on the data from the HESA) is for the academic year 2015/2016 and includes all graduates at UNIA. The proportion of Business school home students who achieved at least an upper-second class that year was very similar (70.2% according to the internal data).

By contrast, degree classification plays a small role in the Czech graduate labour market where graduate employers are rarely interested in graduate academic results and having a so-called “red” diploma¹³¹ is not a prerequisite for the top jobs. In fact, previous research by Nekuda and Sirovátka (2012) found a negative relationship between academic performance and subsequent graduates’ earnings. Some Czech students disparaged the value of the “red” diploma and argued that there are better ways to boost one’s CV such as travelling and work experience. Although the signalling value of degree classification was disregarded by most students this might change in the future since there was also a view that once the graduate labour market reaches a saturation point employers will be more inclined to use academic performance during the recruitment process.

Some graduate employers in the UK expect not only a “good” degree but they also prefer to hire graduates from elite universities. Indeed previous research revealed the importance of university prestige on labour market outcomes (e.g. Young, 1999; Little, 2001; Brennan and Shah, 2003; Chevalier and Conlon, 2003; Brown and Hesketh, 2004; Smetherham, 2006; Brennan, 2008; Norton, 2008; Ramsey, 2008; Green and Zhu, 2010; Papadatou, 2010b; Wilton, 2011; Britton et al., 2016; Kemp-King, 2016).

Institutions which participated in this study occupied similar ranking positions in national league tables¹³²; and there was no elite institution in the sample; therefore the effect of university prestige on students’ expectations could not be addressed using statistical analysis. However, students who took part in focus groups were asked to evaluate their job prospects in the light of their university’s ranking. Some students did not believe that university prestige could affect their chances after graduation, stating that degrees [in business studies] are the same across universities. These students maintained that employers were more interested in personal characteristics and experience rather than where the graduate had studied.

However, other students opposed this view, arguing that their university status could have both positive and negative effects on their future career. For those who planned to stay locally, graduating from their institutions was seen as an advantage. Both Czech and English students believed that their universities were well-known and reputable among [smaller] local employers. Moreover, there was a general agreement among Czech students that public universities are more prestigious than private ones where they felt that students just paid to

131 In order to get a “red” diploma students’ average results cannot exceed 1.5. throughout their studies and grades 1 or 2 have to be achieved in all modules. Other institution-specific criteria may apply.

132 As noted earlier, UNIA and UNIB occupied similar positions in the national league tables at the beginning of this study; however, over the years the gap had been increasing with UNIA going up the league tables to a mid-position and UNIB dropping to the bottom third.

get a degree. This view is supported by Nekuda and Sirovátka (2012) who noted that since the introduction of private HEIs Czech employers have become more selective during the recruitment process.

Czech students who planned to work for a large multinational company claimed that university ranking was used during the selection process and favoured graduates from particular institutions. Similarly, some English students were of the opinion that employers had a preference for graduates from Russell Group universities. These beliefs were in line with some previous studies which found that large UK employers targeted graduates from prestigious institutions (e.g. Young, 1999; Little, 2001; Brown and Hesketh, 2004; Smetherham, 2006; Brennan, 2008; Papadatou, 2010b). There are two possible explanations for this finding. In line with screening/signalling models, employers might believe that the prestige of educational credentials is an indicator of one's underlying ability and for this reason they prefer graduates from elite institutions. On the other hand, employers preference for elite institutions could be explained by credentialism. In this view, employers privilege graduates from prestigious universities because they believe these graduates have superior cultural and moral qualities¹³³.

As noted above, some students believed that employers were mostly interested in applicants' experience. Among Czech students, study abroad was viewed as an effective way to attract a potential employer's attention. For this reason, the impact of study abroad on students' earnings expectations was assessed in the Czech¹³⁴ sample of final¹³⁵ year students. Students who spent part of their studies abroad had higher earnings expectations - they expected to earn nearly 20% more compared to those who had not participated in any exchange programmes; however, these results did not reach statistical significance. Previous research has also shown a positive link between study abroad and graduates' starting salaries (e.g. HEFCE, 2009; IES Abroad, 2012).

There are several possible explanations for these findings. Firstly, students who study abroad are not a random sample; there are strict academic criteria that have to be met before one is allowed to participate in an exchange programme. In other words, outgoing students can be viewed as high-ability students with a strong career focus who, as discussed earlier, have higher earnings expectations. Secondly, graduates who spent a part

133 According to Rivera (2011), employers believe that candidates' educational affiliation is reflection of their intellectual, social and moral worth. A student's decision to attend less prestigious institution is perceived by elite employers as an "evidence of moral failings, such as faulty judgement or a lack of foresight on the part of a student (Rivera, 2011: 79).

134 There were no English students who studied abroad as a part of their studies.

135 Only the final year students were included as students are not allowed to study abroad during their first year of study.

of their degree abroad might be more proficient in foreign languages and have higher cultural awareness; these characteristics might, in turn, be appreciated by employers (e.g. Trooboff et al., 2008; Crossman and Clarke, 2010). Finally, the credentialism model postulates that students from middle-class families are more likely to study abroad since they are more likely to get financial and moral support from their families (Kratz, 2011). Indeed, in this study there was a positive association between Czech students' socio-economic status (measured by parental income and education) and their likelihood to study abroad.

Students' earnings expectations were also evaluated in the light of their plans after graduations. A large majority (83%)¹³⁶ of English final year students expected to be in a graduate job¹³⁷ six months after graduation; however, these expectations seem to be too optimistic. The proportion of graduates at UNIA and UNIB in professional or managerial jobs six months after graduation is only 68.7% and 57.5%, respectively¹³⁸. Czech students were less optimistic with nearly half of the sample (48%) expecting to be either unemployed or have a non-graduate job six months after graduation. These findings are in stark contrast with previous research which found that the incidence of overeducation in the Czech Republic was one of the lowest in Europe (Barone and Ortiz, 2010). On the other hand, the prevalence of overeducation has been found to be increasing in the UK (e.g. Felstead et al., 2007; Green and Zhu, 2010; Kemp-King, 2016). Thus the high number of Czech students anticipating to be in a non-graduate job could be due to the lack of graduate employers in the regions where UNIC and UNID are located.

Furthermore, the regression analysis revealed that the difference in expected earnings was significant not only after graduation but also 10 years later, suggesting a long-term negative impact of overeducation on graduate earnings. In other words, students who expected to be overeducated immediately after graduation also expected to be financially penalised later on in their careers.

Another interesting point which was raised during the focus groups was credential inflation whose existence has been acknowledged by a number of writers (e.g. Killeen et al., 1999; Dolton and Vignoles, 2006; Chevalier and Lindley, 2009; Barone and Ortiz, 2010; Bills and Brown, 2011; Brown et al., 2011; Williams, 2013). Students argued that hiring criteria have been artificially increased by employers over the years although job content has remained

136 Only students who expected to be in a graduate or non-graduate employment were considered, those who planned to be self-employed or continue with their studies were excluded in this part of analysis.

137 There is no official definition of a graduate job – in this study graduate job was defined a job which requires a degree.

138 Based on data provided by Unistats (2017).

unchanged. Czech final year students stated that most administrative positions that are offered to business studies graduates could be carried out by a non-graduate.

According to human capital theory, each year of schooling contributes to one's productivity equally and has the same rate of return (Brown and Sessions, 2004). On the other hand, the screening hypothesis posits that extra years of education that also "convey a certificate" are rewarded "beyond their contribution to marginal productivity" in the labour market (Layard and Psacharopoulos, 1974; Bills and Brown; 2011: 2). The non-linear returns to education are explained by the so-called "sheepskin effect" which refers to "the difference in earnings between individuals possessing a diploma and those who do not, conditional on years of schooling" (Jaeger and Page, 1996: 733). Some previous studies have confirmed the existence of a "sheepskin effect", using realised earnings (e.g. Hungerford and Solon, 1987; Belman and Heywood, 1991; Jaeger and Page, 1996; Ferrer and Riddell, 2002; Trostel and Walker, 2004; Matthews, 2014). This study used data on earnings' expectations to determine whether a "sheepskin effect" is evident in students' expectations. Thus final year students were asked to estimate their earnings under a hypothetical scenario where they would drop out of their course (for personal reasons) in their final year without obtaining a certificate (MEWD scenario). These estimates were then compared with students' expected earnings after graduation (MEAG scenario).

In both the Czech and English samples, students believed that having a diploma would have a positive impact on their earnings. Czech final year students estimated a 16% decrease in earnings were they to drop out of their course during the final year. The difference was even higher in the English sample where students expected to earn 28% more with a degree compared to what they would have expected to earn with three years of university education but no certificate. The difference in expected earnings between the MEAG and MEWD scenarios was statistically significant for both samples.

There are two rather contradictory explanations as to why the "sheepskin effect" is more evident in the earnings expectations of English students. Firstly, as was discussed earlier, nearly half of Czech final year students expected to be in a non-graduate job six months after graduation. Thus it could be argued that for these students dropping out of university in their final year would have a little impact on their earnings potential. Secondly, final year Czech students who participated in this study were studying towards their Master degree and had already completed their undergraduate studies. Therefore, if they had to drop out of their course during the final year they would have a Bachelor degree which would give them a positional advantage against those with the Maturita only.

The “sheepskin effect” is associated with a screening/signalling hypothesis which is one of the competing theories that have been postulated to explain the positive relationship between education and earnings. The other two theories considered in this study were human capital theory and credentialism. As Sanquirgo et al. (2004: 296) point out, very little is known about students’ understanding of the mechanism “through which their education translates into occupational and social status”. Only a few studies have explored students’ perceptions of the education-labour market link (e.g. Killeen et al., 1999 and Sanquirgo et al., 2004).

In this study, final years students evaluated several statements relating to the education-labour market link using a Likert scale. Both Czech and English students favoured the views of credentialism, albeit in different ways. While English students felt that employers prefer graduates from elite institutions Czech students had a tendency to disagree with this statement. This finding might be explained by the fact that in the UK there is a hierarchical HE system. Thus, English students felt that those who can access elite universities would have an advantage in the graduate labour market. On the other hand, the Czech HE system is flatter; therefore, Czech students did not perceive university ranking to be an important factor in the labour market. However, Czech students believed that graduates from lower-socio economic backgrounds are disadvantaged in the graduate labour market due to their financial constraints. As noted earlier, academic results are mostly disregarded by the graduate employers in the Czech Republic; instead, they are usually interested in applicants’ extra-curricular activities. These include study abroad and relevant work experience which is typically gained through unpaid internships. These “CV-enhancing” opportunities are generally less accessible to students from lower-socio economic backgrounds who might not be able to afford to work for free or study abroad¹³⁹.

The findings from qualitative data obtained during focus groups were less conclusive. In line with human capital theory, some students believed that having a degree would make them more efficient in their future job. There was an argument that knowledge gained during studies would be helpful in the workplace. Moreover, English students generally agreed that their transferable skills (including communication, team working and presentation skills) had improved during their studies. Nevertheless, some Czech students doubted the positive effect of education on productivity arguing that relevant work experience is more useful in the labour market.

139 While there are many scholarships and funding opportunities available these rarely cover all the expenses associated with study abroad.

There was also some support for the screening hypothesis – a degree was viewed as a way to demonstrate to potential employers one’s ability and willingness to learn. Some students also believed that having a degree serves only as a ticket into graduate employment since employers were willing to hire graduates from any discipline with no background knowledge. This practice is indeed prevalent in the UK where most graduate vacancies “ask for a degree in any discipline because the knowledge content of the student’s degree is immaterial to the position” (Roberts, 2006: 12). Some large multinational companies in the Czech Republic also seem to be using this strategy to look for graduates with specific language skills.

Finally, students also argued that socio-economic background can influence one’s career both negatively and positively. There was a view that students from less affluent families were disadvantaged; some students said that they had to work during their studies to support themselves. This finding echoes previous research which found students from lower-income families to be more likely to have a part-time job and work longer hours (e.g. Connor et al., 2001; Brennan and Shaw, 2003; Greenbank and Hepworth, 2008).

The importance of family connections was also highlighted during focus groups; students believed that knowing the right people was beneficial when looking for a job. This is in line with previous studies which have also concluded that social capital can determine an individual’s socio-economic success (e.g. Galindo-Rueda and Vignoles, 2002; Brennan and Shaw, 2003; Greenbank and Hepworth, 2008; McNamee and Miller, 2009).

The findings of this study thus give some credence to all three theories (i.e. human capital theory, screening/signalling hypothesis and credentialism); however, both Czech and English students preferred the credentialist explanations of the relationship between education and labour market outcomes. While Czech students were more concerned about the possible effects of economic capital on a person’s labour market success, English students put more emphasis on the social and cultural capital conferred by elite universities. Although human capital theory remains a dominant paradigm in the literature on returns to education the other two theories should not be over-looked. Some writers (e.g. Riley, 1979; Weiss, 1995; Bills, 2003) have proposed that screening should be viewed as an extension to human capital models rather than a competing theory; that seems to be plausible in light of these findings. Moreover, since students’ social, economic and cultural capital seem to have a strong effect on their future career they should be included in future models along with students’ stock of human capital.

6.2.3 The effect of work experience on students’ earnings expectations (Group C)

Turning back now to students' earnings expectations, another group of factors that were examined in this research was work experience. Firstly, the effect of future work experience on earnings expectations was evaluated. Students were asked to estimate their earnings at two points in time – immediately after graduation and ten years after graduation. The vast majority of previous studies on students' earnings expectations have focused only on starting salaries. However, as Brunello et al. (2004) warn, this approach is misleading since students might expect to be in a lower-paid or non-graduate job initially.

English students expected their graduate earnings to grow faster with accumulated work experience. The expected starting salaries of English students were lower; on average they did not expect to reach the national median earnings (i.e. £27,600 p.a.) immediately after graduation. However, the difference in their earnings expectations immediately after graduation and after ten years in the labour market was nearly 84%. The lower initial salaries expected by English students might be due to saturation of the UK graduate labour market where many graduates start their career in a lower skilled role. Data published by the Office for National Statistics (2013) shows that, at the age of 21, average annual salaries of graduates are very similar to average annual salaries of workers "who left education with an A* to C grade GCSE"; however, the annual income of graduates grows at a faster rate as they become older and more experienced before "levelling out around the age of 38".

By contrast, Czech students believed their initial graduate earnings would be higher than the national median earnings (i.e. 21,143 CZK/month) and expected their earnings to rise by 57.5% after first ten years in the labour market. According to the OECD (2012a), the Czech labour market has a sufficient capacity to absorb new graduates and there are relatively high differences in average annual earnings between graduates and non-graduates. Therefore, it is not surprising that Czech students expected above-average earnings immediately after graduation. On the other hand, as Večerník (2009) notes, the age profile of earnings is flatter in the Czech Republic which might be the reason why Czech students expected their earnings to increase at a slower pace with work experience.

Students expected their earnings to grow with work experience even if they had decided to enter the labour market with A-levels or the Maturita. However, the expected growth was somewhat slower in this case; both Czech and English students believed that ten years of work experience would increase their initial earnings by nearly one half (41.9% and 49.8%, respectively).

Another variable of interest was students' existing work experience. This was further divided into casual work experience and supervised work experience undertaken as a part of an undergraduate "sandwich" degree. The possible effect of work experience on earnings

expectations is two-fold. Firstly, students who work during their studies are likely to have a better understanding of labour market conditions and therefore their expectations might be more accurate. Secondly, work experience is usually rewarded among graduate employers. Therefore students with experience might be more confident about finding a graduate job and, as a result, have higher earnings expectations.

In the English sample, there was a negligible difference in earnings expectations between students who worked during their studies and those who did not; this finding applied to both first year and final year students. On the other hand, Czech final year students with relevant work experience expected to earn more after graduation compared to those students who either did not work during their studies or whose work experience was unrelated to their course; however, the difference was not found to be statistically significant. Nevertheless, Czech students who participated in focus groups believed that relevant work experience is necessary in order to get a graduate job.

As noted earlier, many graduate employers in the UK use university prestige and degree classification to filter job applications, possibly overlooking graduates' casual work experience. This might explain why English students did not expect their casual work experience to have an impact on their graduate starting salaries. On the other hand, in the Czech Republic, there are no "sandwich" degrees available at public universities and academic results are not usually taken into account by graduate employers. Hence, Czech students seem to be more inclined to gain relevant work experience through internships to achieve a positional advantage in the labour market.

Previous research has shown that UK graduates who have undertaken a supervised work placement are more likely to be employed six months after graduation and had higher starting salaries (e.g. HEFCE, 2009; Papadatou, 2010a; High Fliers Research, 2013). In this study, there was a negligible difference in earnings expectations immediately after graduation between final year English students who had undertaken supervised work experience as a part of their studies and those completing a standard three-year degree course. Students on sandwich degrees expected a 14% earnings premium ten years after graduation; however, this finding did not reach statistical significance either.

Moreover, students who undertake supervised work experience tend to perform better in their final year (e.g. Gracia and Jenkins, 2003; Mandilaras, 2004; Jones et al., 2015). There are two possible explanations for this relationships. Firstly, it might be that "high-calibre students who go on work placements would have performed at a high standard regardless of placement" (Jones et al., 2015: 977). Secondly, students who have undertaken a work placement tend to mature more rapidly and return to their final year more focused and

determined to do well (Mandilaras, 2004). However, it was not possible to distinguish between the cause and effect since data on students' previous academic performance was not available¹⁴⁰. The proportion of students expecting to achieve a first class degree was notably higher among placement students compared to those who did not undertake supervised work experience (35.5% vs. 18.6%); nonetheless, the interaction effect of placement and expected final grade on expected earnings was not statistically significant. In other words, students' perceived academic ability cannot be used to explain the higher earnings expectations of students on sandwich degrees.

The value of supervised work experience was also acknowledged during focus groups. Final year English students who undertook a placement believed that the experience helped them to use their own initiative and build their confidence. As was noted earlier, a 12-month supervised work placement is not available to students at public universities in the Czech Republic. Nevertheless, a number of Czech students said they would welcome such an option.

6.2.4 Regional and national variations in students' earnings expectations (Group D)

Students' earnings expectations were also evaluated in the light of the regional/national labour market situation. The first question to address was whether earnings expectations vary among institutions within the same country. The two English universities which participated in this study are located in different regions. Students at UNIA had slightly higher expectations; however, place of study could only explain up to 0.8% of the variability (MEAG10 scenario). The difference in earnings expectations between UNIA and UNIB could not be explained by regional variances in earnings because the average graduate earnings in the regions where UNIA and UNIB are situated (i.e. West Yorkshire and West Midlands) are £24,311 p.a. and £24,353 p.a., respectively (Elston et al., 2012).

The difference might have occurred due to a higher proportion of students expecting to achieve a first class degree at UNIA (28.7%) compared to UNIB (15.3%). Moreover, the number of students who had undertaken a supervised work placement was notably higher at UNIA (39.9%) compared to UNIB (14.8%). Both these variables were found to be positively associated with students' expected earnings. Finally, as was discussed earlier, the higher earnings expectations observed at UNIA could be simply due to students' tendency to overestimate their starting salaries to a greater extent compared to students at UNIB.

¹⁴⁰ During the survey, students were asked to state how many UCAS points they achieved; however, the majority of students failed to answer this question.

In the Czech sample students at UNIC had higher expectations for all scenarios; place of study could explain up to 4.4% of the variability (MEAG scenario). In this case, the difference in expected earnings could not be attributed to regional variances in earnings because the average earnings in the regions where UNIC and UNID are situated are similar at 23,512 CZK/month and 23,050 CZK/month, respectively (ČeSU, 2015). However, the unemployment rate is significantly higher in the region where UNID is situated which in turn could negatively affect students' earnings expectations.

Since there are differences between regions in terms of average earnings, the destination of a graduate job could influence students' earnings expectations. Students who took part in the survey were asked where they would like to work after graduation. The descriptive analysis revealed that nearly half (48%) of the first year English students intended to stay in their home region after graduation. The proportion was even higher (72%) among final year English students. A similar trend was observed in the Czech sample where 20% of the first year students wanted to stay in their home region compared to 65% of final year students. The higher mobility of first year students is likely to be due to their age as they are unlikely to have any family commitments or mortgage. Similar findings were obtained by Kratz (2011) who conducted a study in Germany – students who were younger and single were more likely to work and study abroad.

From a human capital perspective, geographic mobility is viewed as a mean to increase expected returns to individual human capital investment (Faggian and McCann, 2009). Graduates will migrate if the expected present value of benefits exceeds the cost of migration (Kratz, 2011). Screening/signalling theory also predicts that graduates with international experience have higher earnings profiles since mobility experience serves employers as a screening device (Hillmer, 2002). Finally, credentialism also assumes a positive association between spatial mobility and graduate earnings given that graduates from higher socio-economic backgrounds are more likely move abroad to work or study. Both Czech and English students who intended to stay in their home regions had lower expectations compared to those who planned to work abroad after graduation. These findings applied to both the MEAG and MEAG10 scenarios. Those Czech students who were interested in working abroad expected to earn 4.4% more compared to those who planned to stay in their home region. By contrast, English students who planned to move out of the country expected a 9.3% earnings premium¹⁴¹. This difference might be due to their different motivations.

141 When compared to those who intended to stay in their home regions.

As Kratz (2011) points out, the benefits associated with migration include pecuniary returns as well as non-pecuniary returns. According to both survey and focus groups findings, Czech students would move temporarily abroad in order to get some work experience and improve their language skills. In other words, Czech students seemed to put more priority on non-monetary benefits (such as improving their human capital through learning a foreign language and making friends/building their social capital) than financial returns (they would be more willing to accept a lower-paid job while abroad). On the other hand, English students were less willing to relocate and would only consider moving abroad if they had been offered a well-paid job; they were mostly interested in English-speaking or Arab countries with high average salaries. Hence, it might be argued that for English students the monetary returns outweigh any non-pecuniary benefits when making a decision to move abroad for work.

Moreover, students who intended to work in the capital (London/Prague) expected to earn more 10 years after graduation compared to students who planned to stay in their home region. London and Prague have the highest average earnings in the UK and the Czech Republic, respectively; therefore it is not surprising that those who intended to work in the capital had higher expectations. During the focus groups, English students did not seem to be overly interested to relocate to London after graduation with the high cost of living seen as a barrier. On the other hand, number of Czech students who participated in focus groups at UNID mentioned Prague as their graduate job destination. The possible explanations for this finding are higher unemployment rate and lack of graduate opportunities in the region where UNID is located.

English students also differed from their Czech counterparts in terms of their expected earnings. The variable “country of study” made the highest contribution to the regression models. Expectations of English students were significantly higher - ten years after graduation English students expected to earn 74.4% more compared to their Czech peers. However, the differences in students’ expectations can be largely explained by different standards of living between England and the Czech Republic.

The median earnings in the UK are higher (i.e. £27,600 p.a.) compared to the median earnings in the Czech Republic (approximately £8,656 p.a.). Even when these earnings are adjusted (using purchasing power parities) to reduce the effect of different price levels across the two countries, the median earnings in the UK are nearly twice as high as median

earnings in the Czech Republic¹⁴². To a lesser extent, higher expectations of English students could be explained by the gender composition of the sample – there were more male students in the English sample who were found to have higher earnings expectations.

6.3 Conclusion

The purpose of this research was two-fold. Firstly, the study aimed to examine and compare Business students' earnings expectations in England and the Czech Republic. Multiple regression was conducted and several personal characteristics were found to influence students' expectations including gender, students' proximity to graduation, ethnicity (English sample only) and parental income. The effect of gender on earnings expectations was found to be stronger in the Czech Republic.

The second group of variables explored the effect of education on students' expectations. Students expected to earn significantly more after graduation compared to what they would expect had they entered the labour market with A-levels/Maturita. On the other, those students who planned postgraduate studies did not expect to receive any further earnings premium. High achieving English students (i.e. those expecting to achieve a first class degree) believed they would be rewarded in the labour market for their efforts. Similarly, Czech students who spent part of their studies abroad expected to earn more after graduation although the difference was not found to be statistically significant. University prestige also played a role in students' labour market expectations. Final year students who expected to be overqualified (i.e. be in a non-graduate level of employment) six months after graduation expected to incur a pay penalty. There was also evidence of a sheepskin effect in students' expectations – final year students believed they would be financially penalised if they had to leave HE without a certificate.

Students believed that their future earnings would grow with accumulated work experience. English final year students who undertook supervised work experience expected to earn more in the long run (i.e. 10 years after graduation). The place of study was found to have a negligible effect on expected earnings. However, both Czech and English students who intended to stay within their home region after graduation had the lowest expectations

142 Median earnings were converted using purchasing power parities (PPPs). This measure converts different currencies into a common currency and also aims to "equalise their purchasing power by eliminating differences in price levels between countries" (OECD, 2012b: 13). The modified exchange rates (applicable for 2015) were 12.725 CZK/USD and 0.757 GBP/USD (OECD, 2016a). Therefore, the modified median earnings in the UK and the Czech Republic were 36,460 USD p.a. and 19,938 USD p.a., respectively.

compared to those who planned to relocate within the country or to move abroad. English students had higher expectations compared to their Czech counterparts even when the different price levels between the two countries were taken into account.

The second aim of this study was to explore students' perceptions of the link between HE and labour market outcomes in the light of human capital theory, the screening hypothesis and credentialism. The survey results revealed that both Czech and English students favoured the views of credentialism. English students believed that [top] graduate employers prefer graduates from elite universities. Young people from middle and upper-class families are more likely to attend these universities, thus reproducing social inequality. On the other hand, Czech students believed that soft credentials (such as study abroad or relevant work experience), which are more accessible to middle-class students, confer an advantage in the labour market. Students who participated in the focus groups believed that HE would have a positive impact on their graduate job performance; however, they also viewed HE as a filter used by employers during the recruitment process. Thus, it seems plausible to view human capital theory and the screening/signalling models as complementary. Students also acknowledged the importance of social capital (i.e. family connections) and economic capital on labour market outcomes. Therefore, economic models of earnings expectations/returns to education should incorporate not only human capital but also social, cultural and economic capital of an individual.

CHAPTER 7: CONCLUSION

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7.1 Introduction

The purpose of this chapter is firstly to summarise the key findings of this study and discuss how they contribute to the limited literature on university students' labour market expectations. The implications of this study for policy and practice are also addressed. The final part of this chapter outlines the limitations of this study and offers some recommendations for future research.

7.2 Summary of key findings

The aim of this study was to examine and compare students' earnings expectations and explore their perceptions of the link between educational credentials and labour market outcomes. A wide range of factors was found to influence students' earnings expectations. On average, both Czech and English female students expected lower initial graduate salaries than their male counterparts and the expected gender-pay gap was found to increase after 10 years in the labour market. The effect of gender on earnings expectations was found to be stronger in the Czech sample. English students from ethnic minorities had higher earnings expectations compared to their white British peers. A positive link between parental income and students' expectations was found.

Students' seniority was found to have an impact on students' expectations – final year students had lower earnings expectations compared to their first year counterparts. Final year English students who expected to obtain a first class honours degree anticipated higher graduate starting salaries and their earnings expectations also grew faster with work experience compared to those expecting upper-second class or lower. Both Czech and

English students believed that university prestige could influence their chances in the labour market. While they generally perceived their institutions to be well-respected by local employers, they did not think that graduating from their respective institutions would give them a competitive edge in the national graduate labour market.

Nearly half (48%) of final year Czech students expected to be either unemployed or in non-graduate employment six months after graduation. These students also anticipated a significant pay penalty after graduation. Final year students (both Czech and English) expected to be penalised financially for leaving HE in their final year without obtaining a qualification thus providing some support for the sheepskin effect hypothesis. When exploring students' perceptions of the link between education and labour market outcomes it was revealed that both Czech and English students favoured the views of credentialism. While English students believed that employers tend to prefer graduates from elite institutions, Czech students were of the opinion that middle-class graduates are advantaged due to their economic capital.

This study also found a positive effect of supervised work placements – final year English students who had undertaken a work placement expected their graduate earnings to grow at a faster rate during their first decade in the labour market. Both English and Czech students who planned to work in the capital city or abroad had higher earnings expectations compared to those who intended to stay in their home regions. While English students would only consider relocating abroad for a lucrative job offer Czech students seemed to be more willing to move abroad to improve their foreign language skills and get some international experience.

7.3 Contribution to knowledge and methodology

After presenting the main findings it is useful to discuss how this study contributes to the current body of knowledge on students' labour market expectations. As noted earlier, the literature on financial returns to education is abundant; however, most studies have traditionally used actual earnings data rather than subjective expectations data. While students' earnings expectations have attracted the attention of researchers in recent years, studies differ in their methodology which makes it difficult to compare the results both within and between countries (Wolter and Zbinden, 2002). This research addresses the problem by using two very similar versions of a questionnaire to collect data in England and the Czech Republic.

Previous studies on students' earnings expectations have predominantly used a cross-sectional study design where data was collected only at one specific point in a time. While this study is not truly longitudinal (i.e. it does not follow participants over time) its repeated cross-sectional design allows analysing changes in students' expectations in the light of the economic situation and policy changes. Finally, previous research has almost exclusively used quantitative data to analyse earnings' expectations. This is the first known study which combines the quantitative data collected through questionnaires with qualitative data obtained during focus groups.

In order to contribute to the filling of gaps in the literature on students' earnings expectations, several variables that have not been explored before were included in this study. The impact of students' seniority (i.e. proximity to graduation) on earnings expectations has never been explored within the Czech context and there has been only one study in the UK which included this variable (i.e. Jerrim, 2011). First year students were found to have significantly higher earnings expectations ten years after graduation compared to their final year peers. This research also included variable "study abroad"¹⁴³. Czech students who spent part of their studies expected to earn more after graduation compared to students with no such experience. Although the difference was not statistically significant students who participated in focus groups believed that study abroad is valued by employers and improves graduates' labour market prospects. Furthermore, the role of a supervised work placement on expected graduate labour market outcomes was also explored. English students who undertook supervised work experience expected to earn more both immediately after graduation and after ten years in the labour market; however, the differences in means did not reach statistical significance.

While a number of studies have tried to estimate the sheepskin effect using actual earnings this study explored whether a sheepskin effect is evident in students' expectations. In order to do so, final year students were asked to estimate their earnings under a hypothetical scenario where they would drop out of their course before graduation. This approach is unique and no other study has used students' earnings expectations to try to identify a possible sheepskin effect. As discussed in the previous chapter, a significant sheep-skin effect was found in both countries.

The phenomenon of overeducation in the labour market has been analysed by looking at the actual career paths of graduates. However, little is known about students' perceptions of this problem. In this study, students were asked what they expected to do six months after

143 This variable was investigated only for the Czech sample since there were no outgoing students in the English sample.

graduation and how long it would take them to find a “graduate” job. Hence this is the first study which has examined the effect of expected overeducation on students’ earnings expectations. Final year Czech and English students who expected to be in a non-graduate type of employment after graduation also expected to incur a significant earnings penalty.

Finally, students’ perceptions of the link between HE and labour market outcomes were evaluated in the light of three theories (i.e. human capital theory, the screening hypothesis and credentialism). There have been only two studies (i.e. Killeen et al., 1999 and Sanquirgo et al., 2004) that have attempted to shed some light on this interesting topic. Moreover, these two studies aimed their investigation at secondary school students. There has been no research focusing on university students. The findings of this study support the credentialist explanation of the relationship between education and labour market success. While human capital theory dominates the literature on returns to education, this study suggests that alternative explanations have some credibility and should be given greater prominence by researchers.

7.4 Policy implications

The English HE sector has undergone some major changes in recent years. Since 2012/2013 universities are allowed to charge a maximum tuition fee of £9,000 per year and under the latest proposals, the fee cap will rise by 2.8% in line with inflation. Although higher tuition fees have not deterred young people from going to university, the majority of students in England do not perceive their degree as good value for money (Hughes, 2012; Neves and Hillman, 2016).

This study surveyed first year and final year students between 2011/2012 and 2014/2015. The first year students surveyed in 2011/2012 were the last cohort who paid variable fees of up to £3,000. This study found that students who started their courses in 2012/2013 or later did not expect higher earnings to compensate for the higher cost of their degree. In other words, the expected graduate premium decreased over time. These findings echo previous research (e.g. Chevalier et al., 2004; Brynin, 2012; Purcell et al., 2012; Kemp-King, 2016) which has suggested that the graduate earnings premium has been decreasing since the 1990s.

Moreover, the graduate premium, which has been used by politicians in England to justify the introduction of and subsequent increase in tuition fees, is calculated as an average value across subjects and institutions. When assessing the costs and benefits of HE, some prospective students might be using the average graduate premium since this information is

readily available. As a result, some of them might be basing their decision to enter HE on overestimated future salaries. This study has shown that English students “overestimated” their future salaries. Students’ earnings expectations after graduation were similar to the median starting salaries of recent Business graduates in the UK (HESA, 2016); however, when institutional data were considered (Unistats, 2017), students in this study expected to earn up to one fifth more compared to recent Business graduates from their universities. Therefore, one policy option is to make data on distribution of graduate earnings (by subject and institution) easily accessible so that prospective students can make more informed decisions about their human capital investment.

Kemp-King (2016: 37) states that “the increasing number of graduates...is further undermining the value of a degree”. Both Czech and English students who participated in the focus groups were concerned about the number of Business graduates leaving universities each year. Czech students were particularly worried about their job prospects after graduation – nearly half of Czech final year students who took part in the survey expected to be either unemployed or in non-graduate employment six months after graduation. The participation rate in HE is high in the Czech Republic – more than 60% of young people go to university (Koucký and Zelenka, 2010). Hence it is very likely that the supply of graduates will eventually outstrip the demand for highly-qualified labour. Such a disequilibrium in the graduate labour market could result in a higher incidence of overeducation, lower graduate earnings and economic restructuring. Given that HE education at public universities is mostly funded by taxpayers, the Czech government might consider introducing a numerus clausus (i.e. caps on students’ numbers) so that HE remains beneficial for both individuals and society.

Furthermore, students in England graduate with an average debt of £44,000 which is the highest debt in the world (Kirby, 2016). It has been estimated that nearly three-quarters of graduates will not earn enough to pay back their loans in full. The repayment threshold for students who started their degree in 2012 or later is £21,000 per year. In this study, 52% of students¹⁴⁴ did not expect their starting graduate salary to be above this threshold. After 10 years in the labour market, 4% of students believed their earnings would be below £21,000. This implies that a small proportion of students do not expect to start repaying their debt. This will have an impact on fiscal sustainability – the total amount owed by English and EU students/graduates was £64.7 billion in 2014/2015 and it is projected to increase to £100 billion in 2016/2017 (Bolton, 2016).

144 Only those who started in 2012 or later are included here.

As noted earlier, a postgraduate loan of up to £10,000 is available to all eligible students in England from 2016/2017. The field work for this study took place before this new scheme was announced. One of the key findings of this study was that English students who intended to do a Master degree did not expect to receive a postgraduate premium. In other words, students seemed to be willing to embark on postgraduate study but did not expect financial returns to such an investment. Although the vast majority of Business graduates in the UK do not pursue a Master degree¹⁴⁵, in this study more than a quarter (27.7%) of first year students considered postgraduate study as an option after graduation. The new loan scheme is likely to encourage more students to pursue a Master degree; however, it will also add a substantial amount to their existing debt.

The findings of this study also have some implications for universities. Firstly, it was revealed that students who had undertaken supervised work placement expected to earn more¹⁴⁶ and placement experience was perceived to be valuable in the graduate labour market. Thus, universities, especially those which are vocationally oriented, could encourage their Business students to undertake a placement and possibly help them to make contact with local employers. Work placements are not generally available to Czech students at public universities; however, this research showed that Business students would welcome an opportunity to spend part of their studies working for a company. This study also found study abroad to have a positive impact on expected labour market outcomes. Nevertheless, the proportion of outgoing students remains very low in both countries. Thus universities could actively promote exchange programmes and help students to secure funding.

7.5 Limitations of the study

Although this study was prepared carefully it has faced several methodological limitations. The first limitation is concerned with the sampling strategy. This study used a convenience (i.e. non-probability) sampling strategy which implies that the findings should be treated as indicative rather than definitive. The second limitation relates to the sample size. The response rate was very high and the overall sample size was sufficient for statistical tests¹⁴⁷; however, the number of participating institutions was small and there was no “elite” institution included in this study. As a result, it was not possible to use statistical analysis to

145 Around 11% of recent Business graduates at UNIA and UNIB continued their studies after graduation (Unistats, 2017). However, this figure might be biased since it includes both home/EU and international students.

146 Both the survey and focus groups findings showed that students who had undertaken a placement had higher expectations; however, the results from the quantitative analysis did not reach statistical significance.

147 At UNIA more than half (58.2%) of all first year Business students and nearly one third (31.5%) of all final year Business students were surveyed between the academic years 2011/2012 and 2014/2015.

examine the effect of university prestige on earnings expectations. Moreover, since this study included only Business students it was not possible to determine whether earnings expectations vary across disciplines.

Another shortcoming was associated with the questionnaire design. Some changes to the original versions of the questionnaire could be made to improve the response rate and the quality of collected data. The length of the questionnaire for final year students seemed to be a problem – some students lost interest and did not answer all the questions. Thus, future studies might consider dividing the questionnaire into two separate ones¹⁴⁸. It would also be desirable if the same questions were included in both versions of the questionnaires. For example, questions on students' home region and part-time job were not incorporated in the Czech version of the questionnaire for first year students. A request was made to add these questions; however, one of the participating universities refused to make any changes.

It was also found that some students did not understand the terminology used in the questionnaire. For instance, some students did not know the meaning of the abbreviation p.a. (i.e. per annum). The expression “median earnings” used in the version for first year students also caused confusion; therefore, when subsequently developing the questionnaire for final year students, it was replaced with the term “most likely”. Some data collected were not suitable for further statistical analysis. For instance, this study intended to use UCAS points as a proxy for students' academic ability. Nevertheless, a significant proportion of students could not remember this information and the response rate was too low for any meaningful statistical analysis.

This study used self-reported data that could not be independently verified. This implies that whatever students said during the focus groups or wrote in the questionnaire had to be taken at face value. It was obvious that a small number of students did not take the questionnaire seriously and reported unrealistic earnings expectations. Final year students at both English institutions had a tendency to exaggerate their expected final grade. The reliability of data on parental income was also questionable since some students did not know this information or they were not willing to disclose it. Regarding students' ethnicity, there were five categories in the questionnaire to choose from; however, some of these categories could have been broken down further (e.g. Asian British could be divided into Indian British, Pakistani British and Bangladeshi British) to allow more detailed analysis. Moreover, some students probably engaged in straight-lining (i.e. choosing the same option for all questions) in order to

148 While one questionnaire would focus on students' earnings expectations the other would explore students' perceptions of the links between education and labour market outcomes.

complete the questionnaire more quickly. Nevertheless, it is nearly impossible to distinguish straight-lining from valid responses.

Although students were asked to complete the questionnaire individually there were instances in large lecture theatres where some discussion between students occurred. To avoid possible data contamination, it would be necessary to make sure there was no interaction between students. This could be achieved by targeting smaller seminars rather than large lectures. Alternatively, more researchers/data collectors could be present to prevent any discussion between students.

In terms of focus groups, a non-probability voluntary-response sampling was used. Thus students who volunteered to participate could be viewed as more confident and opinionated than the “average” student (Denscombe, 2002). Moreover, some students were reluctant to discuss sensitive topics (such as discrimination or students’ socio-economic background) during the focus groups. Thus an anonymous group setting or individual interviews could be employed, which would allow students to express themselves more freely and openly.

7.6 Suggestions for further research

Several recommendations for future research are suggested. The first one is related to the sample size. In order to make general statements about earnings expectations of Business students in England and the Czech Republic, it would be necessary to include students from more (randomly selected) institutions and cover a wider geographical area. Although numerous factors which may influence students’ earnings expectations were examined in this study, one has to keep in mind that this list is not exhaustive. For instance data on career aspiration (e.g. part-time vs. full-time work, local vs. international employer, public sector vs. private sector employer) were not collected in this project but future career path is another possible determinant of students’ earnings expectations and could be included in future research.

According to previous research (e.g. Chevalier, 2011; Conlon and Patrignani, 2011; Walker and Zhu, 2011; Purcell et al., 2012; Britton et al., 2016), the graduate earnings premium varies from subject to subject. Therefore, future studies could extend their samples beyond Business students. Graduate earnings also depend on university attended – graduates from the Russell group universities have been found to earn between 6% to 17% more compared to graduates from newer, less prestigious institutions (e.g. Brennan and Shah, 2003; Chevalier and Conlon, 2003; Wilton, 2007; Norton, 2008; Ramsey, 2008; Britton et al.,

2016). Thus, it would be desirable to include students from the Russell group universities to find out whether they have higher earnings expectations.

This study showed that Business students' earnings expectations evolve during the course of their studies. Nevertheless, this study was only able to detect changes between cohorts due to its repeated cross-sectional design. Hence a longitudinal study would be needed to track any changes at the individual level. Such a study could follow students from their first year to graduation. Moreover, since this study did not follow the participating students after graduation, it was not possible to determine the extent to which students can forecast their starting salary at the individual level. While several studies (e.g. Webbink and Hartog, 2004; Jerrim, 2011; Alonso-Borrego and Romero-Medina, 2014; Frick and Maihaus, 2016) attempted to compare students' earnings expectations with the realised earnings of recent graduates, it would be far more interesting to follow students after graduation to determine whether their graduate earnings met their expectations.

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APPENDICES

Appendix 4.1

Students' Labour Market Expectations Survey

When answering the following questions please do not include inflation in your salary expectations and consider them in current prices. All questions should be filled as honestly as possible and according to what you think, feel and expect. All returned questionnaires will be treated in confidence.

1. What is your gender?

- Female
- Male

2. What is your age? years

3. To which of these groups do you consider you belong to?

- | | |
|--|--|
| <input type="checkbox"/> White British | <input type="checkbox"/> Chinese British |
| <input type="checkbox"/> Asian British | <input type="checkbox"/> Mixed |
| <input type="checkbox"/> Black British | <input type="checkbox"/> Other |

4. What final grade do you expect to obtain?

- | | |
|---|---|
| <input type="checkbox"/> First class | <input type="checkbox"/> Lower-second class |
| <input type="checkbox"/> Upper-second class | <input type="checkbox"/> Third class |

5. How many UCAS points did you have upon entry to the University?

..... points

6. Did you undertake a sandwich work placement (48 weeks) as a part of your degree course?

- No
- Yes

7. Do you have a part-time job at the moment?

- No – I am currently looking for a part-time job
- No – I don't want to work during my studies
- Yes – I have a part-time job relevant to my course
- Yes – I have a part-time job unrelated to my course

8. Have you done any community/volunteer work recently?

- No
- Yes

9. Have you started looking or applying for graduate jobs (i.e. jobs that require you to have a degree)?

- No – I haven't started looking yet
- Yes - I have started looking for graduate jobs
- Yes – I have already applied for a graduate job(s)

10. What do you expect to be doing 6 months after graduation?

- Be employed in a "graduate" job (i.e. job that requires you to have a Bachelor degree)
- Be employed in a non-graduate job (i.e. job where a Bachelor degree is not required)
- Be self-employed
- Studying for a higher degree (MA, MSc, PhD,..)
- Studying for a teaching qualification (PGCE, ...)
- Be unemployed / looking for a job
- Other – please specify

11. What are your salary expectations when you get your first "graduate" job (i.e. a job that requires you to have a Bachelor degree)?

Minimum salary £.....per annum
 Most likely salary £.....per annum
 Maximum salary £.....per annum

12. What are your salary expectations 10 years after your graduation?

Minimum salary £.....per annum
 Most likely salary £.....per annum
 Maximum salary £.....per annum

13. Please consider the following scenario: You are in the final year of your course and you are forced to withdraw from the University (e.g. due to personal or financial problems). In other words, you have spent 3 years (or 4 years) at the University but you did not obtain your Bachelor degree.

What would be your salary expectations when you got a job?

Minimum salary £.....per annum
 Most likely salary £.....per annum
 Maximum salary £.....per annum

14. What is your mother's highest level of education?

- | | |
|--|---|
| <input type="checkbox"/> No formal education | <input type="checkbox"/> University (i.e. Bachelor or Masters Degree) |
| <input type="checkbox"/> School (i.e. GCSE level) | <input type="checkbox"/> N/A |
| <input type="checkbox"/> College (i.e. AS or A-levels) | |

15. What approximately is your mother's salary per annum?

- | | |
|---|--|
| <input type="checkbox"/> £0 – 10, 000 | <input type="checkbox"/> £30,000 – 40, 000 |
| <input type="checkbox"/> £10, 000 – 20, 000 | <input type="checkbox"/> £40,000 and more |
| <input type="checkbox"/> £20, 000 – 30,000 | <input type="checkbox"/> N/A |

16. What is your father's highest level of education?

- | | |
|--|---|
| <input type="checkbox"/> No formal education | <input type="checkbox"/> University (i.e. Bachelor or Masters Degree) |
| <input type="checkbox"/> School (i.e. GCSE level) | <input type="checkbox"/> N/A |
| <input type="checkbox"/> College (i.e. AS or A-levels) | |

17. What approximately is your father's salary per annum?

- | | |
|---|--|
| <input type="checkbox"/> £0 – 10, 000 | <input type="checkbox"/> £30,000 – 40, 000 |
| <input type="checkbox"/> £10, 000 – 20, 000 | <input type="checkbox"/> £40,000 and more |
| <input type="checkbox"/> £20, 000 – 30,000 | <input type="checkbox"/> N/A |

18. What is your home region?

- | | |
|---|---|
| <input type="checkbox"/> Yorkshire and Humber | <input type="checkbox"/> South West |
| <input type="checkbox"/> North East | <input type="checkbox"/> Scotland |
| <input type="checkbox"/> North West | <input type="checkbox"/> Wales |
| <input type="checkbox"/> East Midlands | <input type="checkbox"/> Northern Ireland |
| <input type="checkbox"/> West Midlands | <input type="checkbox"/> European Union |
| <input type="checkbox"/> Greater London | <input type="checkbox"/> Elsewhere abroad (please specify)..... |
| <input type="checkbox"/> East of England | |
| <input type="checkbox"/> South East | |

19. Where do you expect to work after your graduation?

- | | |
|---|---|
| <input type="checkbox"/> Yorkshire and Humber | <input type="checkbox"/> South West |
| <input type="checkbox"/> North East | <input type="checkbox"/> Scotland |
| <input type="checkbox"/> North West | <input type="checkbox"/> Wales |
| <input type="checkbox"/> East Midlands | <input type="checkbox"/> Northern Ireland |
| <input type="checkbox"/> West Midlands | <input type="checkbox"/> European Union |
| <input type="checkbox"/> Greater London | <input type="checkbox"/> North America |
| <input type="checkbox"/> East of England | <input type="checkbox"/> Elsewhere abroad (please specify)..... |
| <input type="checkbox"/> South East | |

20. Please read the following statements and indicate the extent to which you agree or disagree with each of the statements:

- **Employers prefer graduates with “good” degrees (2.1 or first-class degree)**

Strongly disagree Disagree Agree Strongly agree

- **Some employers prefer graduates from elite universities**

Strongly disagree Disagree Agree Strongly agree

- **Skills and knowledge gained at the university have a positive impact on graduates' job performance**

Strongly disagree Disagree Agree Strongly agree

- **A degree is necessary to get a graduate job but it is not essential to perform the job**

Strongly disagree Disagree Agree Strongly agree

- **Graduates have more opportunities in the labour market compared to people who have similar skills and knowledge but who don't hold a degree**

Strongly disagree Disagree Agree Strongly agree

- **Graduates from lower socio-economic backgrounds are disadvantaged in the graduate labour market because of:**

- **Their accent**

Strongly disagree Disagree Agree Strongly agree

- **Their financial constraints**

Strongly disagree Disagree Agree Strongly agree

- **Their lack of connections to potential employers**

Strongly disagree Disagree Agree Strongly agree

Thank you for your co-operation!

Appendix 4.2

Students' earnings expectations survey

When answering the following questions please do not include inflation in your salary expectations and consider them in current prices. All questions should be filled as honestly as possible and according to what you think, feel and expect. If you are not from the United Kingdom, feel free to answer the following questions in your preferred currency.

Thank you for your co-operation!

How much do you expect to earn ...			
	lowest possible earnings	median earnings (i.e. with a 50% chance of earning more or less)	highest possible earnings
...immediately after completing your university studies?	£.....p.a.	£.....p.a.	£.....p.a.
...10 years after university graduation?	£.....p.a.	£.....p.a.	£.....p.a.
...if you had chosen to find a job instead of studying at the university	£.....p.a.	£.....p.a.	£.....p.a.
...10 years from now if you decided to find a job and not to study at the university	£.....p.a.	£.....p.a.	£.....p.a.
What is your father's level of education?	<input type="checkbox"/> no formal education <input type="checkbox"/> school (i.e. GCSE level) <input type="checkbox"/> college (i.e. AS or A-levels) <input type="checkbox"/> university		
What is your mother's level of education?	<input type="checkbox"/> no formal education <input type="checkbox"/> school (i.e. GCSE level) <input type="checkbox"/> college (i.e. AS or A-levels) <input type="checkbox"/> university		
What approximately is your father's salary? (per year)	<input type="checkbox"/> £0 -10,000	<input type="checkbox"/> £10,001-20,000	<input type="checkbox"/> £20,001-30,000
	<input type="checkbox"/> £30,001-40,000	<input type="checkbox"/> £40,001-50,000	<input type="checkbox"/> more than £50,000
	<input type="checkbox"/> not applicable (e.g. deceased, retired, unemployed)		
What approximately is your mother's salary? (per year)	<input type="checkbox"/> £0 -10,000	<input type="checkbox"/> £10,001-20,000	<input type="checkbox"/> £20,001-30,000
	<input type="checkbox"/> £30,001-40,000	<input type="checkbox"/> £40,001-50,000	<input type="checkbox"/> more than £50,000
	<input type="checkbox"/> not applicable (e.g. deceased, retired, unemployed)		
Gender	<input type="checkbox"/> male <input type="checkbox"/> female		
Ageyears		
Which region/county of the UK do you come from? (e.g. West Yorkshire). If you are not from the UK, please state the country that you come from. 			
Ethnic background	<input type="checkbox"/> White	<input type="checkbox"/> Black or Black British	<input type="checkbox"/> Other ethnic group (please specify)
	<input type="checkbox"/> Mixed	<input type="checkbox"/> Asian or Asian British	
UCAS points	AS-levels results (grades)		A-levels results (grades)
Do you have a regular job during your studies?	<input type="checkbox"/> yes, hours/week <input type="checkbox"/> no		
Do you expect to continue your studies full-time immediately after completing your first degree?			
<input type="checkbox"/> yes, for more years <input type="checkbox"/> no			
Where do you intend (would like the most) to work after you graduate from the university?			
<input type="checkbox"/> home region/county	<input type="checkbox"/> region of study	<input type="checkbox"/> London	<input type="checkbox"/> elsewhere in the UK
<input type="checkbox"/> abroad	<input type="checkbox"/> do not know	<input type="checkbox"/> do not care	
Please provide your estimate of the average salary in all the following places:	your home region £.....p.a.	the region where you study £.....p.a.	the capital city £.....p.a.

Appendix 4.3**Dotazník k očekávané návratnosti investice do vzdělání**

Zkuste odhadnout výši hrubé měsíční mzdy, jakou očekáváte po skončení VŠ a jakou předpokládáte 10 let po ukončení studia. Při odhadu ignorujte inflaci – uvažujte mzdu podle nynější cenové hladiny.

Vyplnění dotazníku je zcela dobrovolné. Dotazník je anonymní a získaná data budou sloužit pouze pro studijní účely.

Údaje o respondentovi – zaškrtněte, prosím, příslušnou odpověď**1. Jste**

- žena
 muž

2. Vaše národnost

- česká polská
 slovenská jiná (prosím specifikujte)

3. Váš věk:let**4. Doplňte, prosím, výsledky Vaší maturitní zkoušky:**

Předmět	Známka
1	
2	
3	
4	
(5)	

5. Studoval(a) jste v zahraničí v rámci Vašeho studia na VŠ (např. Erasmus)?

- ano
 ne

6. Pracujete při studiu?

- ne – momentálně si hledám práci
- ne – nechci pracovat při studiu
- ano – pracuji ve svém oboru
- ano – pracuji, ale v jiném oboru

7. Co myslíte, že budete dělat za 6 měsíců po ukončení Vašeho studia?

- Budu pracovat na pozici vyžadující magisterský titul
- Budu pracovat na pozici, která nevyžaduje magisterský titul
- Budu podnikat
- Budu dále studovat (např. PhD,...)
- Budu nezaměstnaný(á)/ hledat si práci
- Jiné (prosím specifikujte).....

8. Uveďte, prosím, jaký očekáváte hrubý nástupní plat (v tisících Kč) ihned po ukončení VŠ:

minimální platKč

pravděpodobný platKč

maximální platKč

9. Uveďte, prosím, jakou očekáváte výši platu (v tisících Kč) za 10 let po dokončení VŠ:

minimální platKč

pravděpodobný platKč

maximální platKč

10. Představte si, prosím, následující scénář: Jste v posledním ročníku Vašeho studia a jste nucen(a) studium ukončit (např. z osobních nebo finančních důvodů). Strávil(a) jste téměř dva roky studiem, ale titul jste nezískal(a).

Uveďte, prosím, jakou byste v tomto případě očekával(a) výši nástupního platu (v tisících Kč):

Minimální platKč

Pravděpodobný platKč

Maximální platKč

11. Doplňte, prosím, údaje o vzdělání Vašeho otce:

- základní
- středoškolské/vyučen
- vysokoškolské

12. Jaká je přibližně výše měsíční hrubé mzdy Vašeho otce?

- 0 – 10000 Kč
- 10000 – 15000 Kč
- 15000 – 20000 Kč
- 20000 – 30000 Kč
- 30000 – 40000 Kč
- 40000 – 50000 Kč
- 50000 Kč a více
- Nerelevantní/Nevím

13. Doplňte, prosím, údaje o vzdělání Vaší matky:

- základní
- středoškolské/vyučena
- vysokoškolské

14. Jaká je přibližně výše hrubé měsíční mzdy Vaší matky?

- 0 – 10000 Kč
- 10000 – 15000 Kč
- 15000 – 20000 Kč
- 20000 – 30000 Kč
- 30000 – 40000 Kč
- 40000 – 50000 Kč
- 50000 Kč a více
- Nerelevantní/Nevím

15. Ve kterém kraji/zemi máte trvalý pobyt?

- | | |
|---|--|
| <input type="checkbox"/> Hlavní město Praha | <input type="checkbox"/> Olomoucký kraj |
| <input type="checkbox"/> Jihočeský kraj | <input type="checkbox"/> Pardubický kraj |
| <input type="checkbox"/> Jihomoravský kraj | <input type="checkbox"/> Plzeňský kraj |
| <input type="checkbox"/> Karlovarský kraj | <input type="checkbox"/> Středočeský kraj |
| <input type="checkbox"/> Kraj Vysočina | <input type="checkbox"/> Ústecký kraj |
| <input type="checkbox"/> Královéhradecký kraj | <input type="checkbox"/> Zlínský kraj |
| <input type="checkbox"/> Liberecký kraj | <input type="checkbox"/> Mimo ČR (prosím specifikujte) |
| <input type="checkbox"/> Moravskoslezský kraj | |

16. Ve kterém kraji/zemi předpokládáte, že budete pracovat po ukončení VŠ?

- | | |
|---|--|
| <input type="checkbox"/> Hlavní město Praha | <input type="checkbox"/> Olomoucký kraj |
| <input type="checkbox"/> Jihočeský kraj | <input type="checkbox"/> Pardubický kraj |
| <input type="checkbox"/> Jihomoravský kraj | <input type="checkbox"/> Plzeňský kraj |
| <input type="checkbox"/> Karlovarský kraj | <input type="checkbox"/> Středočeský kraj |
| <input type="checkbox"/> Kraj Vysočina | <input type="checkbox"/> Ústecký kraj |
| <input type="checkbox"/> Královéhradecký kraj | <input type="checkbox"/> Zlínský kraj |
| <input type="checkbox"/> Liberecký kraj | <input type="checkbox"/> Mimo ČR (prosím specifikujte) |
| <input type="checkbox"/> Moravskoslezský kraj | |

17. Přečtete si, prosím, následující tvrzení a uveďte do jaké míry s nimi souhlasíte nebo nesouhlasíte:

- **Zaměstnavatelé upřednostňují absolventy s velmi dobrými výsledky.**
 Souhlasím Spíše souhlasím Spíše nesouhlasím Nesouhlasím

- **Zaměstnavatelé upřednostňují absolventy z prestižních VŠ.**
 Souhlasím Spíše souhlasím Spíše nesouhlasím Nesouhlasím

- **Znalosti získané během studia na VŠ jsou potřebné pro dobrý a spolehlivý výkon práce.**
 Souhlasím Spíše souhlasím Spíše nesouhlasím Nesouhlasím

- **Vysokoškolský titul je nezbytný pro získání zaměstnání, ale není potřebný pro výkon práce.**
 Souhlasím Spíše souhlasím Spíše nesouhlasím Nesouhlasím

- **Absolventi VŠ mají více příležitostí na trhu práce než zkušení pracovníci bez titulu.**
 Souhlasím Spíše souhlasím Spíše nesouhlasím Nesouhlasím

- **Absolventi VŠ pocházející z rodin s nižším sociálně-ekonomickým statutem jsou znevýhodněni při hledání práce kvůli:**
 - **nedostatku finančních prostředků**
 Souhlasím Spíše souhlasím Spíše nesouhlasím Nesouhlasím

 - **chybějícím společenským kontaktům**
 Souhlasím Spíše souhlasím Spíše nesouhlasím Nesouhlasím

Děkujeme Vám za spolupráci

Appendix 4.4**DOTAZNÍK k očekávané návratnosti investice do vzdělávání 2014/2015**

Zkuste odhadnout výši hrubé měsíční mzdy, jakou očekáváte v případě, že **nyní končíte vysokou školu jako čerstvý absolvent VŠ** a jakou výši mzdy předpokládáte **10 let po ukončení studia**. Rovněž sdělte, zda znáte **příjmy absolventů VŠ ekonomického směru**. Na závěr odhadněte **své případné příjmy bez absolvování VŠ – po nástupu a po 10 letech**. Při odhadu ignorujte inflaci – uvažujte mzdu podle nynější cenové hladiny.

Údaje o respondentovi – zaškrtněte, prosím, příslušnou odpověď1/ žena muž

2/ věk

3/ Doplněte, prosím, údaje o Vámi odhadované výši hrubé mzdy (v tisících Kč) ihned po ukončení VŠ a nástupu do zaměstnání:a/ minimální očekávaná mzda..... TIS. KČb/ očekávaná mzda (alespoň ve výši min. očekávané mzdy).....
 TIS. KČc/ maximální výše mzdy, kterou podle Vašeho názoru jako vysokoškolák při nástupu můžete dosáhnout..... TIS. KČ**4/ Doplněte, prosím, údaje o očekávané výši hrubé mzdy za 10 let od dokončení vysoké školy**a/ minimální očekávaná mzda..... TIS. KČb/ očekávaná mzda (alespoň ve výši min. očekávané mzdy).....
 TIS. KČc/ maximální výše mzdy, kterou dle Vašeho názoru jako vysokoškolák po 10 letech můžete dosáhnout..... TIS. KČ

5/ Znáte přibližnou výši hrubých příjmů nějakého čerstvého absolventa ekonomické fakulty? Pokud ano, uveďte , prosím, jeho výši. Pokud znáte více takových lidí, uveďte, prosím, přibližně rozpětí jejich výdělků v tis. Kč. (tj. nejnižší až nejvyšší)

TIS. KČ

6/ Znáte přibližnou výši hrubých příjmů nějakého staršího absolventa ekonomické fakulty (cca 10 let od promoce)? Pokud ano, uveďte , prosím, jeho výši. Pokud znáte více takových lidí, uveďte, prosím, přibližně rozpětí jejich výdělků v tis. Kč. (tj. nejnižší až nejvyšší)

TIS. KČ

7) Jaký byste očekávali výdělek, kdybyste na vysokou školu nenastoupili a šli rovnou do zaměstnání? Doplňte, prosím, údaje o Vaší možné hrubé mzdě v takovém případě - v tis. Kč.

a/ minimální očekávaná mzda bez VŠ po nástupu..... **TIS. KČ**

b/ očekávaná mzda (alespoň ve výši min. očekávané mzdy)..... **TIS. KČ**

c/ maximální výše mzdy, kterou dle Vašeho názoru bez VŠ vzdělání můžete ihned po nástupu dosáhnout..... **TIS. KČ**

8) Jaký byste očekávali výdělek po 10 letech zaměstnání bez vysokoškolského vzdělání? Doplňte, prosím, údaje o Vaší možné hrubé mzdě v takovém případě - v tis. Kč.

a/ minimální očekávaná mzda po 10 letech..... **TIS. KČ**

b/ očekávaná mzda (alespoň ve výši min. očekávané mzdy)..... **TIS. KČ**

c/ maximální výše mzdy, kterou dle Vašeho názoru bez VŠ vzdělání můžete po 10 letech dosáhnout..... **TIS. KČ**

9/ Doplňte, prosím, údaje o vzdělání Vašeho otce:

(zaškrtněte okénko)

- a/ základní.....
 b/ vyučen.....
 d/ středoškolské
 c/ vysokoškolské

10/ Doplňte, prosím, údaje o vzdělání Vaší matky:

(zaškrtněte okénko)

- a/ základní.....
 b/ vyučen.....
 d/ středoškolské
 c/ vysokoškolské

11/ Jaká je přibližně výše měsíční
hrubé mzdy (v tisících Kč) Vašeho otce?

- 0 - 10 000 Kč
 10 000 – 15 000 Kč
 15 000 – 20 000 Kč
 20 000 – 30 000 Kč
 30 000 – 40 000 Kč
 40 000 – 50 000 Kč
 50 000 a více

12/ Jaká je přibližně výše hrubé mzdy
(v tisících Kč) Vaší matky?

- 0 - 10 000 Kč
 10 000 – 15 000 Kč
 15 000 – 20 000 Kč
 20 000 – 30 000 Kč
 30 000 – 40 000 Kč
 40 000 – 50 000 Kč
 50 000 a více

13/ Výdělek Vašeho otce Vám připadá:

- Velmi vysoký
 Vysoký
 Přiměřený
 Nízký
 Velmi nízký

14/ Výdělek Vaší matky Vám připadá:

- Velmi vysoký
 Vysoký
 Přiměřený
 Nízký
 Velmi nízký

15/ Kde byste chtěli po ukončení univerzity pracovat? (zaškrtněte maximálně 2 možnosti)

- | | | |
|--|--|---|
| <input type="checkbox"/> Praha | <input type="checkbox"/> Evropská unie | <input type="checkbox"/> zatím nevím |
| <input type="checkbox"/> Pardubický kraj | <input type="checkbox"/> Severní Amerika | <input type="checkbox"/> je mi to jedno |
| <input type="checkbox"/> Liberecký kraj | <input type="checkbox"/> Austrálie | |
| | nebo Nový Zéland | |
| <input type="checkbox"/> Středočeský kraj | <input type="checkbox"/> jinde v zahraničí | |
| <input type="checkbox"/> jinde v České republice | (prosím specifikujte) | |
| (prosím specifikujte) | | |
| | | |

DĚKUJEME VÁM

Appendix 4.5**THE UNIVERSITY OF HUDDERSFIELD****Business School****POSTGRADATE STUDENT / STAFF RESEARCH ETHICAL REVIEW****SECTION A: TO BE COMPLETED BY THE APPLICANT**

Before completing this section please refer to the Business School Research Ethics web pages which can be under Resources on the Blackboard site (Ethics Policies and Procedures). Applicants should consult the appropriate ethical guidelines.

Please ensure that the statements in Section C are completed by the Applicant and supervisor prior to submission.

Project Title:	Higher education credentials and labour market outcomes: Expectations of Business students in England and the Czech Republic
Applicant:	Martina Benešová
Award (where applicable)	PhD
Project start date	1/10/2010

SECTION B: PROJECT OUTLINE (TO BE COMPLETED IN FULL BY THE APPLICANT)

Issue	Please provide sufficient detail for your supervisor to assess strategies used to address ethical issues in the research proposal
Researcher(s) details	Martina Benešová (U0867212)
Supervisor details	

	Dr. John Anchor
<p>Brief overview of research methodology</p> <p>The methodology only needs to be explained in sufficient detail to show the approach used (e.g. survey) and explain the research methods to be used during the study.</p>	<p>Survey has been chosen as a research strategy. Data will be collected through a questionnaire. Piloted questionnaires will be distributed to students in person at the participating universities. Data will be collected either by myself or by a member of staff at the Czech Universities.</p>
<p>Does your study require any permissions for study? If so, please give details</p>	<p>Permission from the participating universities (Schools) to collect data (including the permission from lecturers who are teaching the classes where questionnaires will be distributed).</p>
<p>Participants</p> <p>Please outline who will participate in your research. If your research involves vulnerable groups (e.g. children, adults with learning disabilities) , it must be referred to the Course Assessment Panel.</p>	<p>Participants will be first-year and final year university students in England and the Czech Republic. Only students from Business schools will be included.</p>
<p>Access to participants</p> <p>Please give details about how participants will be identified and contacted.</p>	<p>Students will be asked to complete the questionnaire during lectures. Arrangements have been made in the Czech Republic to get the data collected on my behalf.</p>
<p>How will your data be recorded and stored?</p>	<p>Questionnaires will be stored at the university (in researchers' office).</p>
<p>Confidentiality</p> <p>Please outline the level of confidentiality you will offer</p>	<p>Participation will be voluntary. The data will be used only for this research project and they will not be passed on to third parties. The data will only be accessible to my supervisor (Dr. J. Anchor) and to me.</p>

<p>respondents and how this will be respected. You should also outline about who will have access to the data and how it will be stored. (This information should be included on Information your information sheet.</p>	
<p>Anonymity If you offer your participants anonymity, please indicate how this will be achieved.</p>	<p>The questionnaire is anonymous – students will be asked not to write down their names and student numbers.</p>
<p>To what extent could the research induce psychological stress or anxiety, cause harm or negative consequences for the participants (beyond the risks encountered in normal life). If more than minimal risk, you should outline what support there will be for participants.</p>	<p>N/A</p>

Retrospective applications. If your application for Ethics approval is retrospective, please explain why this has arisen.

N/A

SECTION C – SUMMARY OF ETHICAL ISSUES (TO BE COMPLETED BY THE APPLICANT)

Please give a summary of the ethical issue and any action that will be taken to address the issue(s). If you believe there to be no ethical issues, please enter "NONE" in the box.

NONE

SECTION D – ADDITIONAL DOCUMENTS CHECKLIST (TO BE COMPLETED BY THE APPLICANT)

Please supply to your supervisors copies of all relevant supporting documentation electronically. If this is not available electronically, please provide explanation and supply hard copy

I have included the following documents

- | | | | |
|--------------------|-----|-------------------------------------|--|
| Information sheet | Yes | <input type="checkbox"/> | Not applicable <input checked="" type="checkbox"/> |
| Consent form | Yes | <input type="checkbox"/> | Not applicable <input checked="" type="checkbox"/> |
| Letters | Yes | <input type="checkbox"/> | Not applicable <input checked="" type="checkbox"/> |
| Questionnaire | Yes | <input checked="" type="checkbox"/> | Not applicable <input type="checkbox"/> |
| Interview schedule | Yes | <input type="checkbox"/> | Not applicable <input checked="" type="checkbox"/> |

SECTION E – STATEMENT BY APPLICANT

I confirm that the information I have given in this form on ethical issues is correct.

Signature

Date: 4/11/2011

Affirmation by Supervisor

I have read the Ethical Review Checklist and I can confirm that, to the best of my understanding, the information presented by the Applicant is correct and appropriate to allow an informed judgement on whether further ethical approval is required

Signature _____

Date: _____

All proposals will be reviewed by two members of SREP. If it is considered necessary to discuss the proposal with the full Committee, the applicant (and their supervisor if the applicant is a student) will be invited to attend the next Ethics Committee meeting.

Appendix 4.6**THE UNIVERSITY OF HUDDERSFIELD****Business School****POSTGRADATE STUDENT / STAFF RESEARCH ETHICAL REVIEW****SECTION A: TO BE COMPLETED BY THE APPLICANT**

Before completing this section please refer to the Business School Research Ethics web pages which can be under Resources on the Blackboard site (Ethics Policies and Procedures). Applicants should consult the appropriate ethical guidelines.

Please ensure that the statements in Section C are completed by the Applicant and supervisor prior to submission.

Project Title:	Higher education credentials and labour market outcomes: Expectations of Business students in England and the Czech Republic
Applicant:	Martina Benešová
Award (where applicable)	PhD
Project start date	1/10/2010

SECTION B: PROJECT OUTLINE (TO BE COMPLETED IN FULL BY THE APPLICANT)

Issue	Please provide sufficient detail for your supervisor to assess strategies used to address ethical issues in the research proposal
Researcher(s) details	Martina Benešová (U0867212)
Supervisor details	Dr. John Anchor

<p>Brief overview of research methodology</p> <p>The methodology only needs to be explained in sufficient detail to show the approach used (e.g. survey) and explain the research methods to be used during the study.</p>	<p>Survey has been chosen the research strategy. Some data has been already collected using questionnaires. To obtain additional information, I intend to carry out focus groups with students.</p>
<p>Does your study require any permissions for study? If so, please give details</p>	<p>Permission from the participating Universities (Schools) to collect data. Permission from the Czech universities has been obtained already.</p>
<p>Participants</p> <p>Please outline who will participate in your research. If your research involves vulnerable groups (e.g. children, adults with learning disabilities) , it must be referred to the Course Assessment Panel.</p>	<p>Participants will be the first year and final year university students in England and the Czech Republic. Only students from Business schools will be included.</p>
<p>Access to participants</p> <p>Please give details about how participants will be identified and contacted.</p>	<p>Students will be contacted by email or asked during the class (with the permission of the lecturer) whether they would be willing to participate. Those who would be interested will be invited to a focus group which will be conducted at university. Participants will be informed about the purpose of the study.</p>
<p>How will your data be recorded and stored?</p>	<p>Focus group will be recorded and then transcribed. The electronic copy of transcription will be stored on the K-drive at the university. The computer is password protected. Paper data (printed transcriptions) will be kept either in PGRs room locked in my drawer or in my supervisor's office. The data will be kept until I finish my PhD.</p>
<p>Confidentiality</p>	<p>Participation will be voluntary and I will ask students' permission to record their answers. The data will be used only for this research project and they will not</p>

<p>Please outline the level of confidentiality you will offer respondents and how this will be respected. You should also outline about who will have access to the data and how it will be stored. (This information should be included on Information your information sheet.</p>	<p>be passed on to third parties. The data will only be accessible to my supervisor (Dr. J. Anchor) and to me. We would make them available to examiners upon request.</p>
<p>Anonymity If you offer your participants anonymity, please indicate how this will be achieved.</p>	<p>The focus group is anonymous – I will not ask student's name or contact details. I am only interested in gender and the year of study.</p>
<p>To what extent could the research induce psychological stress or anxiety, cause harm or negative consequences for the participants (beyond the risks encountered in normal life). If more than minimal risk, you should outline what support there will be for participants.</p>	<p>N/A</p>
<p>Retrospective applications. If your application for Ethics approval is retrospective, please explain why this has arisen.</p> <p>N/A</p>	

SECTION C – SUMMARY OF ETHICAL ISSUES (TO BE COMPLETED BY THE APPLICANT)

Please give a summary of the ethical issue and any action that will be taken to address the issue(s). If you believe there to be no ethical issues, please enter "NONE" in the box.

NONE

SECTION D – ADDITIONAL DOCUMENTS CHECKLIST (TO BE COMPLETED BY THE APPLICANT)

Please supply to your supervisors copies of all relevant supporting documentation electronically. If this is not available electronically, please provide explanation and supply hard copy

I have included the following documents

- | | | |
|--------------------|---|--|
| Information sheet | Yes <input type="checkbox"/> | Not applicable <input checked="" type="checkbox"/> |
| Consent form | Yes <input type="checkbox"/> | Not applicable <input checked="" type="checkbox"/> |
| Letters | Yes <input type="checkbox"/> | Not applicable <input checked="" type="checkbox"/> |
| Questionnaire | Yes <input type="checkbox"/> | Not applicable <input checked="" type="checkbox"/> |
| Interview schedule | Yes <input checked="" type="checkbox"/> | Not applicable <input type="checkbox"/> |

SECTION E – STATEMENT BY APPLICANT

I confirm that the information I have given in this form on ethical issues is correct.

Signature

Date: 05/01/2013

Affirmation by Supervisor

I have read the Ethical Review Checklist and I can confirm that, to the best of my understanding, the information presented by the Applicant is correct and appropriate to allow an informed judgement on whether further ethical approval is required

Signature

Date:

All proposals will be reviewed by two members of SREP. If it is considered necessary to discuss the proposal with the full Committee, the applicant (and their supervisor if the applicant is a student) will be invited to attend the next Ethics Committee meeting.

Appendix 5.1

ANOVA: Academic year and earnings expectations: English sample

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
MEAG	Between Groups	1218868519.951	3	406289506.650	9.876	.000
	Within Groups	77092732209.549	1874	41138064.146		
	Total	78311600729.499	1877			
MEAG10	Between Groups	10664408600.031	3	3554802866.677	10.560	.000
	Within Groups	630834961091.130	1874	336624845.833		
	Total	641499369691.161	1877			
MEWD	Between Groups	922845982.282	3	307615327.427	8.133	.000
	Within Groups	70881008373.416	1874	37823376.934		
	Total	71803854355.698	1877			
MEWD10	Between Groups	1463899948.188	3	487966649.396	5.048	.002
	Within Groups	127114398110.947	1315	96664941.529		
	Total	128578298059.136	1318			

ANOVA: Academic year and earnings expectations: Czech sample

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
MEAG	Between Groups	4430300.526	3	1476766.842	.046	.987
	Within Groups	34982510464.209	1088	32153042.706		
	Total	34986940764.735	1091			
MEAG10	Between Groups	296602496.303	3	98867498.768	.606	.611
	Within Groups	177641398190.510	1088	163273343.925		
	Total	177938000686.813	1091			
MEWD	Between Groups	74756149.277	3	24918716.426	1.339	.260
	Within Groups	20244966149.258	1088	18607505.652		
	Total	20319722298.535	1091			
MEWD10	Between Groups	107163014.023	3	35721004.674	.461	.709
	Within Groups	47998679534.054	620	77417225.055		
	Total	48105842548.077	623			

Appendix 5.2

Multiple regression: MEAG scenario

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.845 _a	.713	.705	4537.86118	.713	89.801	80	2889	.000

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	147935640607.756	80	1849195507.597	89.801	.000 ^b
	Residual	59490819861.536	2889	20592184.099		
	Total	207426460469.292	2969			

Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	22878.157	395.371		57.865	.000	22102.918	23653.395
Male (vs. female)	-1879.454	329.446	-.113	-5.705	.000	-2525.426	-1233.481
England (vs. Czech Republic)	-13238.877	1059.780	-.764	-12.492	.000	-15316.879	-11160.875
First year (vs. final year)	-403.719	622.750	-.023	-.648	.517	-1624.797	817.360
Student did not study abroad (vs. student studied abroad)	41.009	990.839	.001	.041	.967	-1901.814	1983.832
Student did not undertake supervised placement (vs. student undertook supervised placement)	148.135	894.047	.004	.166	.868	-1604.900	1901.170
White British vs. Black British	2105.127	464.248	.049	4.534	.000	1194.836	3015.419
White British vs. Mixed	654.765	673.294	.010	.972	.331	-665.420	1974.951
White British vs. Asian British	1067.417	280.624	.048	3.804	.000	517.173	1617.661
White British vs. other	1460.175	647.740	.027	2.254	.024	190.096	2730.254
Mother's level of education low vs. medium	-661.051	330.774	-.038	-1.998	.046	-1309.628	-12.473
Mother's level of education low vs. high	-300.583	416.079	-.015	-.722	.470	-1116.425	515.260
Father's level of education low vs. medium	499.235	297.869	.029	1.676	.094	-84.822	1083.293

Appendices

Father's level of education low vs. high	-51.334	370.706	-.003	-.138	.890	-778.210	675.541
Mother's level of income low vs. medium	321.701	287.874	.018	1.118	.264	-242.758	886.161
Mother's level of income low vs. high	95.721	482.059	.003	.199	.843	-849.493	1040.936
Father's level of income low vs. medium	871.563	266.740	.051	3.267	.001	348.542	1394.583
Father's level of income low vs. high	370.315	314.601	.019	1.177	.239	-246.550	987.179
Expected first class vs. upper-second class	-2116.162	610.077	-.082	-3.469	.001	-3312.393	-919.931
Expected first class vs. lower-second class	-2421.714	852.861	-.042	-2.840	.005	-4093.991	-749.437
Expected first class vs. third class	-3686.334	1966.431	-.021	-1.875	.061	-7542.083	169.416
Expect to be in a graduate job vs. non-graduate job	-1313.425	655.914	-.043	-2.002	.045	-2599.532	-27.318
Expect to be in a graduate job vs. self-employment	2667.957	1130.664	.039	2.360	.018	450.967	4884.947
Expect to be in a graduate job vs. further studies	-206.571	980.020	-.003	-.211	.833	-2128.179	1715.038
Expect to be in a graduate job vs. unemployment	-2390.562	1297.928	-.046	-1.842	.066	-4935.520	154.396
Expect to be in a graduate job vs. other plans	-1791.849	1114.696	-.030	-1.607	.108	-3977.528	393.829
No job during studies vs. job relevant to studies	-468.734	654.591	-.015	-.716	.474	-1752.247	814.779
No job during studies vs. job not related to studies	-288.823	513.505	-.012	-.562	.574	-1295.696	718.049

Appendices

Student expects to work in home region vs. region study	1244.333	915.627	.046	1.359	.174	-551.015	3039.682
Student expects to work in home region vs. capital city	45.002	452.196	.002	.100	.921	-841.658	931.662
Student expects to work in home region vs. elsewhere in the country	-840.756	505.559	-.031	-1.663	.096	-1832.048	150.537
Student expects to work in home region vs. abroad	1030.915	435.923	.040	2.365	.018	176.164	1885.666
Student expects to work in home region vs. student does not know/care	-286.262	376.476	-.012	-.760	.447	-1024.451	451.927
GenderCountry	562.202	439.744	.029	1.278	.201	-300.041	1424.446
Students'SeniorityCountry	127.405	827.252	.006	.154	.878	-1494.658	1749.467
MotherEDUmedCountry	135.637	835.692	.007	.162	.871	-1502.976	1774.249
MotherEDUhighCountry	23.087	938.332	.001	.025	.980	-1816.780	1862.955
FatherEDUmedCountry	-995.118	949.766	-.053	-1.048	.295	-2857.404	867.169
FatherEDUhighCountry	-464.095	1029.645	-.015	-.451	.652	-2483.009	1554.818
MotherINCmedCountry	116.364	433.899	.006	.268	.789	-734.418	967.146
MotherINChighCountry	811.158	714.857	.019	1.135	.257	-590.522	2212.839
FatherINCmedCountry	-746.268	483.159	-.035	-1.545	.123	-1693.640	201.103
FatherINChighCountry	-192.681	558.247	-.007	-.345	.730	-1287.283	901.921
NonGradJobCountry	-51.323	833.996	-.001	-.062	.951	-1686.612	1583.965
SelfEMPLCountry	-1033.803	1450.232	-.011	-.713	.476	-3877.397	1809.791
FurtherStudyCountry	-2464.954	1630.636	-.019	-1.512	.131	-5662.281	732.372
UnemploymentCountry	1463.990	1429.352	.025	1.024	.306	-1338.662	4266.642
PlansOtherCountry	290.212	1331.998	.004	.218	.828	-2321.550	2901.974

Appendices

JobUnrelatedCountry	-37.138	685.927	-.001	-.054	.957	-1382.094	1307.818
RelevantJobCountry	448.878	808.905	.010	.555	.579	-1137.212	2034.967
RegionOfStudyCountry	-1229.464	940.231	-.042	-1.308	.191	-3073.054	614.127
CapitalCountry	-1218.292	672.919	-.028	-1.810	.070	-2537.742	101.157
ElsewhereCountry	610.432	643.795	.016	.948	.343	-651.912	1872.775
AbroadCountry	-1317.750	660.967	-.032	-1.994	.046	-2613.764	-21.735
PlacementBlack	-2434.976	2750.249	-.009	-.885	.376	-7827.624	2957.673
PlacementMixed	427.085	2441.470	.002	.175	.861	-4360.114	5214.284
PlacementAsian	-2135.268	1152.482	-.021	-1.853	.064	-4395.038	124.502
PlacementOther	-1338.256	1518.983	-.011	-.881	.378	-4316.656	1640.144
PlacementUpperSecond	886.797	971.136	.019	.913	.361	-1017.394	2790.987
PlacementLowerSecond	2504.590	1665.931	.020	1.503	.133	-761.944	5771.123
PlacementThird	7744.692	5039.288	.017	1.537	.124	-2136.270	17625.654
JobRelevantGender	705.188	719.694	.018	.980	.327	-705.979	2116.354
JobUnrelatedGender	188.344	581.651	.006	.324	.746	-952.149	1328.836
RegionOfStudyGender	203.039	660.609	.006	.307	.759	-1092.272	1498.351
CapitalGender	1619.668	614.376	.046	2.636	.008	415.008	2824.327
ElsewhereGender	486.359	608.840	.014	.799	.424	-707.446	1680.164
AbroadGender	-17.006	590.558	.000	-.029	.977	-1174.965	1140.952
DontKnowGender	527.953	581.830	.013	.907	.364	-612.891	1668.797
NongraduateGender	802.200	770.995	.021	1.040	.298	-709.557	2313.957
SelfEMPLGender	-2051.942	1506.736	-.017	-1.362	.173	-5006.329	902.444
FurtherStudyGender	2369.990	1385.282	.027	1.711	.087	-346.251	5086.231
UnemploymentGender	455.410	1277.953	.007	.356	.722	-2050.381	2961.201
PlansOtherGender	2143.963	1304.927	.028	1.643	.100	-414.719	4702.644

RegionOfStudyPlacement	-2079.244	1638.627	-.016	-1.269	.205	-5292.241	1133.752
CapitalPlacement	506.900	1161.052	.005	.437	.662	-1769.673	2783.473
ElsewherePlacement	1646.092	1335.120	.015	1.233	.218	-971.792	4263.976
AbroadPlacement	-1393.330	1594.597	-.010	-.874	.382	-4519.992	1733.332
RegionOfStudyStudyAbroad	1426.221	1788.543	.010	.797	.425	-2080.727	4933.169
CapitalStudyAbroad	-1080.803	2862.358	-.004	-.378	.706	-6693.274	4531.667
ElsewhereStudyAbroad	-508.175	2319.044	-.002	-.219	.827	-5055.322	4038.972
AbroadStudyAbroad	2443.482	2084.566	.014	1.172	.241	-1643.904	6530.869

Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	5484.3462	26855.5469	17104.7165	7058.80703	2970
Std. Predicted Value	-1.646	1.381	.000	1.000	2970
Standard Error of Predicted Value	308.935	4537.861	671.159	333.448	2970
Adjusted Predicted Value	5052.7202	27490.3242	17101.4468	7061.57825	2969
Residual	-17066.11914	22251.83984	.00000	4476.30714	2970
Std. Residual	-3.761	4.904	.000	.986	2970
Stud. Residual	-3.775	5.035	.000	.999	2970
Deleted Residual	-17193.72266	23462.41992	.61049	4592.01917	2969
Stud. Deleted Residual	-3.784	5.057	.000	1.000	2969
Mahal. Distance	12.761	2968.000	79.973	114.672	2970
Cook's Distance	.000	.049	.000	.001	2969
Centered Leverage Value	.004	1.000	.027	.039	2970

Appendix 5.3

Multiple regression: MEAG10 scenario

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	
					R Square Change	F Change
1	.769 ^a	.591	.580	11830.88920	.591	52.175

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	584229091254.779	80	7302863640.685	52.175	.000 ^b
	Residual	404373154613.974	2889	139969939.292		
	Total	988602245868.753	2969			

Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	39617.199	1030.793		38.434	.000	37596.036	41638.363
	Male (vs. female)	-5731.463	858.915	-.158	-6.673	.000	-7415.610	-4047.315
	England (vs. Czech Republic)	22612.892	2763.008	-.598	-8.184	.000	-28030.557	-17195.227

First year (vs. final year)	4292.747	1623.603	.112	2.644	.008	1109.211	7476.283
Student did not study abroad (vs. student studied abroad)	-1207.493	2583.267	-.008	-.467	.640	-6272.725	3857.739
Student did not undertake supervised placement (vs. student undertook supervised placement)	3234.235	2330.916	.042	1.388	.165	-1336.191	7804.662
White British vs. Black British	5108.031	1210.365	.055	4.220	.000	2734.764	7481.298
White British vs. Mixed	2190.114	1755.380	.016	1.248	.212	-1251.809	5632.036
White British vs. Asian British	3515.416	731.629	.073	4.805	.000	2080.847	4949.984
White British vs. other	3812.644	1688.756	.032	2.258	.024	501.357	7123.932
Mother's level of education low vs. medium	649.387	862.379	.017	.753	.452	-1041.553	2340.326
Mother's level of education low vs. high	532.188	1084.782	.012	.491	.624	-1594.836	2659.212
Father's level of education low vs. medium	-227.850	776.590	-.006	-.293	.769	-1750.577	1294.877
Father's level of education low vs. high	-236.764	966.487	-.005	-.245	.806	-2131.838	1658.310

Mother's level of income low vs. medium	1477.048	750.532	.039	1.968	.049	5.416	2948.681
Mother's level of income low vs. high	4188.207	1256.800	.062	3.332	.001	1723.891	6652.522
Father's level of income low vs. medium	98.277	695.432	.003	.141	.888	-1265.317	1461.871
Father's level of income low vs. high	2588.570	820.212	.061	3.156	.002	980.310	4196.830
Expected first class vs. upper-second class	-8626.669	1590.564	-.154	-5.424	.000	-11745.424	-5507.914
Expected first class vs. lower-second class	-11892.548	2223.537	-.094	-5.348	.000	-16252.427	-7532.670
Expected first class vs. third class	-9834.825	5126.783	-.026	-1.918	.055	-19887.347	217.697
Expect to be in a graduate job vs. non-graduate job	-4914.133	1710.068	-.073	-2.874	.004	-8267.209	-1561.057
Expect to be in a graduate job vs. self-employment	8565.805	2947.812	.057	2.906	.004	2785.777	14345.832
Expect to be in a graduate job vs. further studies	-1587.668	2555.059	-.012	-.621	.534	-6597.591	3422.255
Expect to be in a graduate job vs. unemployment	-5132.218	3383.894	-.045	-1.517	.129	-11767.307	1502.872
Expect to be in a graduate job vs. other plans	-2093.759	2906.180	-.016	-.720	.471	-7792.154	3604.635

No job during studies vs. job relevant to studies	1496.703	1706.618	.022	.877	.381	-1849.609	4843.016
No job during studies vs. job not related to studies	865.164	1338.784	.017	.646	.518	-1759.905	3490.232
Student expects to work in home region vs. region study	1110.832	2387.178	.019	.465	.642	-3569.913	5791.576
Student expects to work in home region vs. capital city	2312.256	1178.944	.040	1.961	.050	.600	4623.912
Student expects to work in home region vs. elsewhere in the country	17.458	1318.069	.000	.013	.989	-2566.992	2601.907
Student expects to work in home region vs. abroad	3666.095	1136.517	.065	3.226	.001	1437.629	5894.560
Student expects to work in home region vs. student does not know/care	-763.003	981.530	-.014	-.777	.437	-2687.574	1161.567
GenderCountry	2766.283	1146.479	.066	2.413	.016	518.284	5014.282
Students' SeniorityCountry	-4062.245	2156.770	-.081	-1.883	.060	-8291.208	166.718
MotherEDUmedCountry	-3634.050	2178.775	-.089	-1.668	.095	-7906.161	638.060
MotherEDUhighCountry	-3372.138	2446.373	-.050	-1.378	.168	-8168.950	1424.675
FatherEDUmedCountry	528.481	2476.183	.013	.213	.831	-4326.782	5383.744
FatherEDUhighCountry	663.672	2684.440	.010	.247	.805	-4599.940	5927.283

MotherINCmedCountry	-914.768	1131.239	-.020	-.809	.419	-3132.885	1303.349
MotherINChighCountry	-2256.632	1863.739	-.024	-1.211	.226	-5911.025	1397.761
FatherINCmedCountry	-395.923	1259.669	-.009	-.314	.753	-2865.863	2074.017
FatherINChighCountry	-2104.823	1455.433	-.036	-1.446	.148	-4958.615	748.970
NonGradJobCountry	1663.318	2174.355	.021	.765	.444	-2600.125	5926.761
SelfEMPLCountry	-5888.981	3780.974	-.028	-1.558	.119	-13302.659	1524.698
FurtherStudyCountry	810.461	4251.313	.003	.191	.849	-7525.452	9146.374
UnemploymentCountry	2072.310	3726.535	.016	.556	.578	-5234.626	9379.247
PlansOtherCountry	3484.243	3472.720	.020	1.003	.316	-3325.015	10293.501
JobUnrelatedCountry	-1103.634	1788.316	-.016	-.617	.537	-4610.137	2402.870
RelevantJobCountry	-346.519	2108.938	-.004	-.164	.869	-4481.694	3788.656
RegionOfStudyCountry	-2328.087	2451.323	-.036	-.950	.342	-7134.605	2478.432
CapitalCountry	-4614.812	1754.401	-.049	-2.630	.009	-8054.816	-1174.808
ElsewhereCountry	1201.454	1678.470	.015	.716	.474	-2089.666	4492.574
AbroadCountry	-4191.358	1723.241	-.047	-2.432	.015	-7570.264	-812.452
PlacementBlack	7616.460	7170.315	.013	1.062	.288	-6442.988	21675.909
PlacementMixed	3132.486	6365.281	.006	.492	.623	-9348.464	15613.437
PlacementAsian	-7441.035	3004.695	-.033	-2.476	.013	-13332.597	-1549.474
PlacementOther	-4370.527	3960.219	-.017	-1.104	.270	-12135.666	3394.613

PlacementUpperSec ond	3287.473	2531.899	.033	1.298	.194	-1677.038	8251.985
PlacementLowerSec ond	8633.080	4343.334	.031	1.988	.047	116.734	17149.426
PlacementThird	2237.936	13138.18 4	.002	.170	.865	-23523.224	27999.097
JobRelevantGender	-1224.234	1876.352	-.014	-.652	.514	-4903.357	2454.889
JobUnrelatedGende r	-54.261	1516.452	-.001	-.036	.971	-3027.698	2919.176
RegionOfStudyGend er	1366.441	1722.306	.019	.793	.428	-2010.632	4743.514
CapitalGender	2573.968	1601.771	.034	1.607	.108	-566.761	5714.698
ElsewhereGender	-1039.504	1587.339	-.013	-.655	.513	-4151.934	2072.927
AbroadGender	-357.750	1539.675	-.005	-.232	.816	-3376.722	2661.223
DontKnowGender	2298.699	1516.919	.027	1.515	.130	-675.654	5273.051
NongraduateGender	2578.489	2010.102	.031	1.283	.200	-1362.889	6519.868
SelfEMPLGender	-2936.757	3928.289	-.011	-.748	.455	-10639.288	4765.775
FurtherStudyGender	745.639	3611.640	.004	.206	.836	-6336.011	7827.290
UnemploymentGend er	1846.978	3331.815	.014	.554	.579	-4685.997	8379.953
PlansOtherGender	881.383	3402.141	.005	.259	.796	-5789.486	7552.252
RegionOfStudyPlac ement	-6909.154	4272.148	-.025	-1.617	.106	-15285.920	1467.613
CapitalPlacement	-4942.362	3027.037	-.023	-1.633	.103	-10877.732	993.009
ElsewherePlacemen t	6630.042	3480.860	.027	1.905	.057	-195.177	13455.261
AbroadPlacement	-6412.126	4157.355	-.020	-1.542	.123	-14563.807	1739.555

RegionOfStudyStudyAbroad	5026.392	4663.000	.016	1.078	.281	-4116.751	14169.536
CapitalStudyAbroad	-703.569	7462.600	-.001	-.094	.925	-15336.126	13928.988
ElsewhereStudyAbroad	196.422	6046.097	.000	.032	.974	-11658.678	12051.521
AbroadStudyAbroad	9122.597	5434.778	.024	1.679	.093	-1533.836	19779.030

Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	8890.6670	60300.8086	30368.3242	14027.70068	2970
Std. Predicted Value	-1.531	2.134	.000	1.000	2970
Standard Error of Predicted Value	805.441	11830.890	1749.813	869.350	2970
Adjusted Predicted Value	8629.2930	67091.9453	30367.0455	14042.38267	2969
Residual	-33782.43359	54715.85938	.00000	11670.40853	2970
Std. Residual	-2.855	4.625	.000	.986	2970
Stud. Residual	-2.926	4.749	.000	1.001	2970
Deleted Residual	-35466.75781	57692.59766	.72916	12041.48659	2969
Stud. Deleted Residual	-2.930	4.767	.000	1.002	2969
Mahal. Distance	12.761	2968.000	79.973	114.672	2970
Cook's Distance	.000	.082	.000	.002	2969
Centered Leverage Value	.004	1.000	.027	.039	2970

Appendix 5.4

Independent Samples Test:/Postgraduate studies: English sample (first year students)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
MEAG	Equal variances assumed	3.312	.069	-2.159	1309	.031	-928.258	429.872	-1771.571	-84.945
	Equal variances not assumed			-2.143	645.554	.033	-928.258	433.209	-1778.926	-77.589
MEAG10	Equal variances assumed	.066	.797	-.343	1309	.732	-391.488	1140.884	-2629.649	1846.673
	Equal variances not assumed			-.358	717.779	.720	-391.488	1092.471	-2536.309	1753.333

Independent Samples Test/Postgraduate studies: English sample (final year students)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
MEAG	Equal variances assumed	11.139	.001	-1.992	554	.047	-1530.814	768.650	-3040.638	-20.990
	Equal variances not assumed			-1.380	41.575	.175	-1530.814	1108.937	-3769.419	707.791
MEAG10	Equal variances assumed	2.698	.101	-0.800	554	.424	-2448.837	3059.267	-8458.019	3560.345
	Equal variances not assumed			-.561	41.648	.578	-2448.837	4363.952	-11257.855	6360.180

Appendix 5.5

Independent Samples Test/Work Experience: English sample (first year students)

Independent Samples Test: Work Experience (First year English sample)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
MEAG	Equal variances assumed	1.557	.212	-.847	1313	.397	-329.032	388.475	-1091.131	433.068
	Equal variances not assumed			-.873	1305.370	.383	-329.032	376.916	-1068.459	410.395
MEAG10	Equal variances assumed	.808	.369	-.404	1313	.686	-416.022	1029.209	-2435.096	1603.052
	Equal variances not assumed			-.412	1281.730	.680	-416.022	1009.661	-2396.791	1564.747
MEWD	Equal variances assumed	2.527	.112	1.558	1313	.120	458.535	294.372	-118.957	1036.027
	Equal variances not assumed			1.532	1130.981	.126	458.535	299.216	-128.546	1045.615
MEWD10	Equal variances assumed	.465	.495	1.166	1313	.244	642.254	550.598	-437.894	1722.403
	Equal variances not assumed			1.184	1269.910	.236	642.254	542.269	-421.588	1706.097

Appendix 5.6

Independent Samples Test/Place of study: English sample

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
MEAG	Equal variances assumed	1.048	.306	3.815	1876	.000	1299.939	340.714	631.721	1968.156
	Equal variances not assumed			3.654	769.966	.000	1299.939	355.767	601.550	1998.327
MEAG10	Equal variances assumed	.983	.322	3.943	1876	.000	3843.631	974.902	1931.624	5755.638
	Equal variances not assumed			3.971	838.810	.000	3843.631	967.935	1943.773	5743.489

Independent Samples Test/Place of study: Czech sample

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
MEAG	Equal variances assumed	3.710	.054	7.041	1090	.000	2396.870	340.435	1728.887	3064.852
	Equal variances not assumed			7.170	1028.886	.000	2396.870	334.284	1740.913	3052.826
MEAG10	Equal variances assumed	.105	.746	2.220	1090	.027	1738.980	783.237	202.156	3275.803
	Equal variances not assumed			2.247	1010.275	.025	1738.980	773.956	220.233	3257.726