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The decision-making and changing behavioural dynamics of potential higher education students: the impacts of increasing tuition fees in England

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Abstract

Recent changes in the English tuition fee policies have spurred a debate on the impacts on student choices for higher education. Expectations range from a sharp decrease of participation in higher education to relatively little change in student demand. We surveyed 1,549 year 12 sixth form students from four institutions spread geographically across England. We have broadened the approach to the study of student choice by not only considering the impact of going to higher education or not, but have included in our choice scenarios the consideration of looking for cheaper higher education alternatives and of looking for higher education abroad. This brings our study from a focus on widening participation and access into the realm of the dynamics of increasing choice in a globalised world. The data suggest that financial issues are key influencers. We conclude that the English higher education system may be confronted with significant changes in student choice patterns, given the study's finding that students show high levels of anxiety and consequently consider a much broader range of study options: within or outside higher education; in publicly-funded or for-profit institutions; and in the UK or elsewhere.

Key words: decision-making, tuition fees, student choice, higher education

Introduction

During the last two decades, the governments of many countries around the world have shifted the cost of higher education from the state to the student. By 2005, Australia, Canada, Italy, Japan, the Netherlands, New Zealand, Spain and the United States (US) all had some form of student fee system contributing to the funding of higher education (Miller 2010). In these countries, there has been a trend toward regarding higher education as a private good, which benefits individuals, and which individuals should therefore pay, rather than a public good, which benefits societies and economies.

This trend has occurred partly due to the ideological shift of conservative economists and politicians, and partly due to the growing pressures on public budgets globally (Altbach 2006, 94). Several countries in Western Europe, such as Germany and Sweden, resisted the introduction of tuition fees in higher education until very recently, in some cases even for international students. Around the world, public undergraduate higher education is still provided free to 'home' students in only a handful of countries, such as Argentina, Finland, Norway, Qatar and the United Arab Emirates (UAE).

Demand for higher education has grown in most countries globally. In the United Kingdom (UK), for example, the proportion of 18-23 year olds in higher education increased from 14% in 1980 to 43% in 2006 (Shattock 2010). Governments around the world have adopted diverse strategies to expand higher education capacity.

For all countries with large public systems of higher education the cost of funding them has become an increasing strain. With governments being unable to raise more money through taxation, many have seen the introduction of tuition fees as the only viable and acceptable solution. In countries such as Japan, Korea and the US, it is now universally accepted that students pay the whole, or a substantial part, of the cost of their higher education. In European countries where students have not previously had to pay tuition fees, there is a wide held fear that the introduction of

fees (or substantially higher levels of fees) might reduce rates of participation in higher education, particularly among those from poorer backgrounds.

In the UK, higher education tuition fees were first introduced in 1998. New entrants to full-time undergraduate degree courses were charged up to £1,000 per annum, based on parental income. In addition, in 1999, maintenance grants were abolished and replaced with maintenance loans. From 2006, all full-time UK students at English, Welsh and Northern Irish universities have been charged a variable tuition fee, which was initially capped at £3,000 per annum. Each year, this figure has increased in line with inflation, to £3,375 in 2011-12. Following devolution and the establishment of the Scottish government, the Scottish parliament decided that from 2007 undergraduate students domiciled and studying in Scotland would not have to pay any fees towards the cost of their tuition.

In November 2009, the Browne Review was launched, to consider possible future strategies for higher education funding in England. Its findings were published in October 2010. The report recommended that more of the burden of funding higher education should fall on graduates and that there should be no cap on the tuition fees that universities can charge students (Browne 2010). The review found that there was no evidence that the (then) current level of fees (£3,225 in 2009-10) had deterred students from participating in higher education. However, the UK coalition government felt that an unlimited tuition fee was politically unacceptable, and decided that from October 2012 there would be a cap of £9,000 per annum in England (BIS 2011).

The Department for Business Innovation & Skills (BIS 2010) developed a dynamic model which estimates that a £1,000 increase in tuition fees results in a 4.4% decrease in university participation, while increases in grants and loans both result in increased participation. The introduction of tuition fees in 1998 does not appear to have deterred young people from participating in higher education, as enrolments continued to grow each year between 1998 and 2001 (Galindo-Rueda, Marcenaro-Gutierrez, and Vignoles 2004). However, it is possible that the increase of tuition fees from £3,375 to £9,000 in 2012 will have a greater impact on demand, especially with the recent downturn in the UK and global economies and rising graduate unemployment. An unpublished survey commissioned for the Browne Review found that students and parents viewed tuition fees of £6,000 as the highest reasonable amount for universities to charge (Morgan 2011b).

Despite the attempts referred to above to 'measure' the impact of the new fee policy, it should be borne in mind that such predictions are somewhat problematic. First, the student choice literature explains that choice patterns are affected by multiple factors. In making choices, financial barriers/stimuli are important (Leslie and Brinkman 1987; Heller 1997), but not the sole determinants (see literature review below). Second, it is likely that different types of students respond differently to the financial barriers (Reay 1998; Ahier 2000; David, Ball, Davies, and Reay 2003; Callender and Jackson 2008). Third, the governmental policy assumed – somewhat implicitly – that within the English system a range of fee levels would be set, assuming that each institution would deliberate the relationship between price (fee level) and quality and that institutions would consider their position in the national pecking order (in terms of prestige, status, ranking position) in setting their fee levels. However, the majority of institutions initially announced that they intended to set their fees close to the maximum of £9,000 (Coughlan 2011), which undermines some of the policy scenarios developed by the government.

This study puts the expectations of the government to the test; it assesses the key influences on the student decision-making process and the impact of increased higher education tuition fees in England from 2012 on the intended behaviour of potential university students. In particular, we are interested to ascertain the extent to which students might consider study at cheaper alternatives to the publicly funded UK universities, such as institutions located overseas or private sector institutions in the UK. During the last decade, new options have emerged. For example, many universities across Europe have introduced programmes taught in English, and universities based in English-speaking countries, such as Australia, the UK and US, have begun delivering their programmes at branch campuses established in numerous countries across the globe. The cost of study at overseas branch campuses is generally far lower than the cost in the UK. For example, the tuition fee at Middlesex University's branch in Mauritius was £4,000 per annum in 2010, and the cost of living in Mauritius is significantly cheaper than London (Morgan 2011a).

In the US, Australia and UK, accelerated programmes - which enable students to complete courses in a shorter period of time - have become increasingly popular (Wilkins, Martin, and Walker 2010). In the UK, the University of Buckingham has offered two-year undergraduate degrees since the mid-1970s, but now for-profit institutions also offer accelerated programmes. The newly established Coventry University College will deliver programmes from 7am to 10pm, seven days a week, 42 weeks a year, so that students can complete an undergraduate degree in less than two years, at a maximum cost of £4,800 per year (Vasagar 2011).

Since the BPP College of Professional Studies became the first for-profit company allowed to grant British degrees in 2007, other private sector organisations have also entered the UK higher education market. Some of these institutions have gained reputations for focusing on the student as a customer and providing small group instruction using state-of-the-art teaching equipment (Alderman 2010). As tuition fees increase, students will not only consider the cost of higher education, but also the expected return from it (Wilkins and Meeran 2011). The privately owned institutions tend to concentrate on offering courses in Accounting, Business and Law, which might be perceived as offering higher earnings after graduation, and therefore these courses might be attractive to students. Furthermore, given that some of the private institutions currently charge tuition fees that are lower than £9,000 per annum, they will be able to compete with the publicly funded universities on price.

Given the current dynamics of tuition fee increases, the emergence of alternative providers and programmes in the UK and competitors elsewhere, it is interesting and important to investigate whether choice patterns of UK students will change. The paper is structured as follows. In the next section, we provide a review of the literature on student decision-making and choice in higher education, which also identifies and explains our analytical framework and propositions. We then present details of our research method. This is followed by presentation and analysis of our findings. We conclude with a discussion that highlights the implications of our findings and analysis.

Literature review, framework and propositions

The concepts of student decision-making and choice have been widely studied. A number of these studies have focused on the students' process of decision-making by relying on theories of consumer purchasing behaviour (students buying an educational service in this case). For example, Moogan, Baron, and Harris (1999) studied the multiple steps of decision-making that students take when deciding to embark upon a higher education degree (see also Hemsley-Brown 1999; Chen and Zimitat 2006). Despite revealing the fact that student choice is a complex concept influenced by a variety of factors, the multiple step approach to decision-making is beyond the scope of this study as we focus instead on a number of key factors that influence students, regardless of the sequence of their impacts.

Several studies have examined these influential factors in different countries at different times. Quality of teaching and research (Price, Matzdorf, Smith, and Agahi 2003), image and reputation of the institution (Isherwood 1991; Ivy 2001; Paulsen and St. John 2002), image of the country (Srikatanyoo and Gnoth 2002; Binsardi and Ekwulugo 2003; Cubillo, Sanchez, and Cervino 2006), cost of studies (Hu and Hossler 2000; Mazzarol and Soutar 2002; Foskett, Roberts, and Maringe 2006; Maringe 2006), geographic proximity (Mazzarol and Soutar 2002), friends and family effects (Hossler and Stage 1992; Soutar and Turner 2002; Ceja 2006) and career prospects (Maringe 2006) are considered as the major factors that influence the students' choice of a post-secondary institution. Meanwhile, other scholars have studied the impacts of students' backgrounds (e.g. social class, academic preparedness and ethnicity) on their choice of higher education institution (HEI) (Paulsen and St. John 2002; Zimbhoff 2005).

A commonly used theoretical framework for exploring the patterns of international students' purchasing behaviour is the push-pull model (see, for example, Mazzarol and Soutar 2002; Wilkins, Balakrishnan, and Huisman 2011). The framework assumes that the change in the patterns of consumers' purchasing behaviour is the function of a set of push factors as well as a set of pull factors. Push factors operate within a source country to initiate the student's decision to study overseas (e.g. higher tuition fees in the UK) and a set of pull factors operate in the host country to

attract students to that particular country over others (e.g. no tuition fees and courses taught in English in Finland).

The factors that have previously encouraged UK students to study abroad, such as developing language skills, enjoying adventure or improving employability - see King, Findlay, and Ahrens (2010) - or to not enter higher education have remained fairly stable over the last decade. The number of UK students going abroad has been relatively low. The UK HE International Unit (2010) estimated that about 33,000 UK students are mobile; this ranks the UK as 22nd sending country world-wide (King, Findlay, and Ahrens 2010). However, we hypothesise that the large tuition fee increase that is to be implemented from 2012-13 will act as a significant 'push factor'. Therefore, we assess the impacts of the tuition fee increase on students' choices by focusing on this change and ignoring the effects of other possible push factors. In light of this new push factor (increased fees), we intend to identify a set of pull factors, which are expected to affect students' choices.

It is important to note that this study was conducted at a point in time before the tuition fee increase had taken effect. Given the sudden way the change is to be introduced and the extent of the change, we felt unable to completely rely on the findings of previous studies on student choice and decision-making. Instead, we selectively 'cherry-picked' the most relevant set of factors, which seemed – according to the literature – to have impacts on English students' decision making at that point of time. Moreover, we considered three scenarios as the possible outcomes of the increase of tuition fees: not entering HE, going abroad and looking for a cheaper alternative in the UK.

The literature shows evidence of the impacts of financial status on student choice (Paulsen and St. John 2002; Kurlaender 2006). Because the dramatic increase of tuition fees is the main factor that shapes a new circumstance under which we intend to investigate the changes in the students' purchasing behaviour, and given that the introduction of this reform came rather as a shock, we expect that consideration of financial factors comes to the fore in students' decision-making criteria and their choice of HEI.

Therefore, we hypothesise:

Proposition 1: Facing substantially higher tuition fees, financial issues will become the key influencer determining a student's higher education choices.

Studies in the US have consistently found that an increase in tuition fees is associated with a reduction in higher education enrolments (Leslie and Brinkman 1987; Rouse 1994; Kane 1995; Heller 1997; Hemelt and Marcotte 2008). Furthermore, the literature on student decision-making indicates that a strong relationship exists between a student's choices and the socio-economic status of the student's family. That is, the affordability of the targeted institution is a key element for working-class students (see, for example, Hossler and Stage 1992; McDonough 1997; Paulsen and St. John 2002). In addition to these, Reay (2003) highlights the history of social class inequalities in the British higher education system. She argues that the replacement of elite education with mass higher education system has not been very successful in removing the social differentials in access.

Coelli (2009, 1076) reports that a number of older US studies found that students from low-income backgrounds were more sensitive to increases in tuition fees than students from high-income backgrounds. However, more recent studies have not always agreed that there is a clear relationship between level of tuition fees and enrolment by parental income group (e.g., Ellwood and Kane 2000; Cameron and Heckman 2001). Research conducted in Canada has also provided inconclusive results with regard to a negative relationship between tuition fees and enrolments in higher education. For example, Fortin (2005) found a negative relationship, while Christofides, Cirello, and Hoy (2001) did not. Furthermore, Christofides, Cirello, and Hoy (2001) found no differences in student enrolments across parental income groups. In 1989, the Australian government introduced a deferred payment system whereby students pay toward the cost of their higher education after they graduate, subject to meeting a minimum income level. Chapman and Ryan (2005) found that the introduction of deferred fees in Australia has not discouraged university participation in general or among individuals from low wealth groups.

A number of studies have concluded that financial concerns play a major role in the decision-making of students on whether or not to enter higher education (Knowles 2000; Archer, Hutchings,

and Ross 2003; Forsyth and Furlong 2003). In addition, previous research has found that prospective students from lower parental income groups are more likely to be deterred from entry to higher education because of the costs (and debts) involved, which include the opportunity cost of earnings forgone during the period of study (Forsyth and Furlong 2000; Knowles 2000; Callender and Jackson 2005). The UK government's view has been that students should view the tuition fees they pay as an investment, as students achieve an earnings premium after graduation. However, a study by Callender and Jackson (2008) concluded that students from low-income backgrounds are more likely than their wealthier peers to perceive the costs of higher education as a debt rather than an investment.

Accordingly, in light of the new push factor, we expect that the higher education decisions of working-class students will be more influenced by financial factors than other (higher) social classes. Thus:

Proposition 2: Facing substantially higher tuition fees, working-class students will be the most likely to consider not entering higher education.

Proposition 3: Facing substantially higher tuition fees, working-class students will be the most likely to seek cheaper higher education opportunities.

In addition to socio-economic factors, differences in the decision-making of male and female students have received substantial attention from scholars. This concept is somewhat interlinked with parental intervention with students' decision-making. For example, Ceja (2006) found that parents showed more emotional and moral support to their daughters and David, Ball, Davies, and Reay (2003) studying the impacts of gender issues on student choice through parental involvements revealed that the gender differences are significant: boys are less inclined to get their parents involved with their choice, while girls are more likely to be dependent on their parents.

In Hossler and Stage's (1992) study, student gender showed significant direct and indirect impact on students' aspirations for college enrolment. Paulsen and St. John (2002) found that women in a lower-income class were less likely than men in the same class to enrol on full-time continuous courses. They argued that women are more likely to apply for short-term practical courses. Dickson (2010) found a number of elements that substantially influence the choice of college and among them gender differences were the most significant. Therefore, given these findings, we expect that the increase in tuition fees will have different impacts on the decision-making and choices of male and female students. Thus we hypothesise:

Proposition 4: Facing substantially higher tuition fees, females will be more likely than males to be influenced by financial issues when making decisions about higher education.

The UK has traditionally been an importer of tertiary level students, not an exporter. It has never been a normative practice for UK students to study at HEIs in other countries. While around 370,000 foreign students attend UK universities every year, only 33,000 UK students take courses overseas (Paton 2010). Due to the forthcoming dramatic increase in the tuition fees, studying abroad is expected to eventually receive more attention from students as an alternative. However, as norms do not change quickly and in the light of the potential language barriers, we do not expect a considerable shift in the UK student's choice toward considering education abroad.

Proposition 5: Facing substantially higher tuition fees, students in England are still not likely to consider studying at higher education institutions abroad.

Currently, very few UK students take their degree at a university abroad, and few spend even a period of their degree overseas. For example, for every 20 students who come from abroad to the UK to study for a degree, only one UK student goes overseas (Fearne 2011). Lack of language skills is one of the most important factors that potentially hinder UK students from considering overseas

education (King, Findlay, and Ahrens 2010). Therefore, among those who may consider studying abroad, the majority is expected to be proficient in a foreign language.

Proposition 6: Facing substantially higher tuition fees, students who take at least one modern foreign language at A-level will be more likely to consider studying at higher education institutions abroad.

Method

The data for this study came from a survey of year 12 students who were following a General Certificate of Education Advanced Level programme (A-levels) in England. A thorough search and analysis of the literature aided item development, resulting in the creation of a draft questionnaire. In particular, we used Chapman (1981) for creating items that influence the choice of institution and Cubillo, Sanchez, and Cervino (2006) for the items that impact the choice of location. The questionnaire items used covered a wide range of possible influences on student decision-making and the number of items related to financial issues was no greater than, for example, the number of items related to institutional quality and reputation, social life and leisure, or employment and career issues, thus there was no bias towards financial issues.

To ensure content validity, two focus group discussions were conducted, each lasting approximately one hour. The first group consisted of five year 12/13 students who were studying A-levels at a school sixth form, while the second group had four students from a further education college who were undertaking foundation/preparatory programmes for higher education. All students were aged between 17 and 21. The focus groups involved students completing the draft questionnaire and then discussing issues relating both to the questionnaire and aspects of student choice and decision-making in general. The findings resulting from the focus groups enabled further refinement of our questionnaire.

The final questionnaire consisted of 67 items: 5 that collected personal data about the respondents, 52 that were related to factors influencing student choice of location and institution (used for the exploratory factor analysis), and 10 about future options for higher education and/or employment being considered by the respondents. The National Readership Survey (NRS) classification was used to categorise respondents according to socio-economic group membership. The NRS demographic classification system has six levels, which range from grade A at the top, representing professionals and higher managerial staff (upper middle class) to grade E at the bottom, representing those living at the lowest levels of subsistence. In the middle, grade C1 represents the lower middle class (supervisory, administrative and junior management positions), while grade C2 represents the skilled working class.

For clarity and ease of understanding among respondents, the questions relating to student choice were grouped in two sections according to choice of institution or choice of location, with each item rated on a 7-point scale where 1 = not at all important and 7 = extremely important. Within each of the two sections, the items were mixed and randomly positioned so that different types of influence, e.g. financial, institutional quality/reputation and social/leisure, were not grouped. Reverse-scored items were not used, in order to avoid reduction in the validity of the questionnaire responses (Schriesheim and Hill 1981) and the introduction of systematic error (Jackson, Wall, Martin, and Davids 1993).

The population of interest in this study is year 12 A-level students in England. Year 12 students are in their penultimate year of secondary education, and those seeking to enter higher education normally submit their applications in the first term of year 13. Using Maringe and Carter's (2007) conceptualisation of the student decision-making process as a five-stage model, it is likely that the students participating in the survey were in one of the first two stages: either identifying the problem needing a solution or searching for information.

The A-level is the final qualification in secondary education taken by the majority of students in England, Wales and Northern Ireland. Over three quarters of students who achieve three or more A-levels progress into higher education at a university (Bassett, Cawston, Thraves, and Truss 2009). By focusing on 17-18 year old students who were taking A-levels we were more likely to capture the students in this age group who would be considering progression into higher education. Our sample

did however also include students at one college who were following the International Baccalaureate (IB) Diploma programme. The convenience sampling method was used, whereby self-selected volunteers studying at sixth form colleges in England completed the questionnaires. A sixth form college is a post-compulsory institution in the UK that specialises in education for 16-19 year olds, the vast majority of whom study A-levels and progress into higher education.

Four colleges agreed to participate in the study and to offer our questionnaire to their year 12 students over a three-week period in May 2011. The colleges are located in different regions of England and are situated in different types of location - e.g. large city and small market town - thus avoiding geographical and socio-economic biases. A total of 3,100 questionnaires were sent to the four colleges and 1,549 usable returns were returned, giving a response rate of 50.0%, comfortably above the most demanding recommendations for item-to-response ratios for scales that are to be subjected to exploratory factor analysis. For example, Nunnally (1978) recommends an item-to-response ratio of at least 1:10, whilst Guadagnoli and Velicer (1988) argue that in most cases a minimum sample size of 300 observations should be sufficient to obtain an accurate solution.

Respondents completed hard copies of the survey questionnaire, which were distributed via the students' personal tutors. Before asking the students to complete the questionnaire, tutors provided the students with some basic information about expected levels of tuition fees in the UK in the following academic year, operation of the student loan system and different types of higher education institution, including private providers and overseas institutions. A briefing sheet was provided for tutors to aid them in this task, which provided basic facts and specific examples, and so while, for example, students may not previously have known what an international branch campus was, they would have known before completing the questionnaire.

Results

The survey sample comprised 44.8% males and 55.2% females. Of the respondents who gave details about their parent's (main income earner's) occupation (5.5% did not respond to this question), 62.2% were from middle-class backgrounds (grades A-C1) and 37.8% from working-class backgrounds (grades C2-E). Some 12.1% of students were studying a modern foreign language at A-level and 19.3% reported that they regularly communicate in a foreign language at home.

76.1% of the students answered that they intend to enrol at a UK university, which is about the same proportion of students with at least three A-levels who have registered for university education in the UK in recent years (Bassett, Cawston, Thraves, and Truss 2009). Although this finding confirms the current trend, it was rather surprising to see that year 12 sixth form students also considered other options: 36.0% were considering going to a university abroad; 18.6% said they will consider trying to find a cheaper alternative in the UK, such as a for-profit higher education provider or the 2+1 further/higher education college route – a Foundation degree or Higher National Diploma followed by a one year top-up to achieve a bachelor's degree; while 25.2% said they were considering taking a job first and going to university later.

Exploratory factor analysis using Principal Components with Varimax rotation was conducted (using SPSS version 19) to determine the underlying components of 52 items that represented influencers on student decision-making. The Kaiser-Meyer-Olkin test produced a value of .897, far higher than the cut-off point of .70, thus indicating that the sample size of 1,549 was adequate. In addition, the Bartlett test of sphericity ($p = .000$) indicates that the data has a high enough degree of correlation between at least a number of variables, making it suitable for exploratory factor analysis. Using the criteria Eigenvalue > 1 and factor loading $> .50$, six factors were extracted, which accounted for 60.1% of total variance (Table 1). The items in each factor were examined to identify what the items had in common and to give the factors appropriate names.

The six factors are named Financial issues (FIN), Entertainment and atmosphere (ENT), Institution quality and reputation (INS), Career and work issues (CAR), Country reputation for higher education (CTY) and Foreign experiences (FOR). Internal consistency of the factors was tested using Cronbach's alpha coefficient. The alpha values ranged from .74 to .88, satisfying the minimum .70 recommended by Nunnally (1978) and thus indicating that the measures used in each factor are reliable.

Table 1. Rotated component matrix: influencers on student decision-making.

	FIN	ENT	INS	CAR	CTY	FOR
Financial issues (FIN)						
Cost of accommodation in town/country	.833					
Cost of living in town/country	.807					
Cost of travel between home and university	.738					
Cost of university accommodation	.727					
Cost of repaying loan	.721					
Cost of tuition fees	.719					
Ability to pay tuition fees in instalments	.619					
Cost of medical care in country	.615					
Entertainment & atmosphere (ENT)						
Availability of nightlife		.787				
Availability of entertainment on campus		.782				
Entertainment/activities in town/country		.750				
Atmosphere on campus		.741				
Ability to pursue my leisure interests		.715				
Other students have similar interests as me		.580				
Institution quality & reputation (INS)						
Quality of teaching			.810			
Quality of programme			.724			
Reputation of university			.682			
Reputation of professors			.664			
Quality of library and learning resources			.630			
Career and work issues (CAR)						
Strong links with employers				.753		
University organised work placements				.741		
Secure highly paid job on graduation				.607		
Work in town/country whilst studying				.606		
Attitudes of employers to institution				.583		
Country reputation (CTY)						
Number prestigious universities in country					.785	
Many Nobel prize winners from country					.719	
Reputation of country for system of HE					.633	
Foreign experiences (FOR)						
Experience living in a foreign culture						.857
Develop foreign language skills						.855
Diverse international community on campus						.516
Eigenvalue	8.05	3.21	2.37	1.87	1.32	1.21
Variance (%)	26.84	10.70	7.91	6.22	4.41	4.03
Cumulative variance (%)	26.84	37.54	45.45	51.67	56.08	60.11
Cronbach's alpha	.88	.84	.78	.79	.74	.75

Explaining 26.8% of total variance, our findings indicate (supporting proposition 1) that financial issues are the biggest influence on a student's higher education intentions. Given that the current economic downturn that has occurred in the UK and many Western countries has resulted in increased levels of unemployment and lowers levels of family disposable income, it is not surprising that financial concerns are greatly influencing students. To investigate if the strength of the

influencers on student decision-making varies between males and females and students with different socio-economic backgrounds, one-way between groups multivariate analysis of variance (MANOVA) was performed. On the combined dependent variables comprising the six components, there appears a statistically significant difference between males and females [$F(6, 1,356) = 9.52, p = .000$, Wilks' $\lambda = .960$] and between students with different socio-economic backgrounds [$F(30, 5,154) = 2.56, p = .000$, Wilks' $\lambda = .942$].

By performing univariate ANOVAs, it was found that statistically significant differences between males and females existed for financial issues (offering support for proposition 4), institutional quality and reputation, career and work issues, and foreign experiences at the .001 level of significance, and also for country reputation at the 0.05 level. For students with different socio-economic backgrounds, significant differences were only found for financial issues at the .001 level and for country reputation at the .05 level.

Pearson's chi-square tests were used to investigate whether there was association between groups of students categorised by gender, socio-economic grade, whether or not they were studying a foreign language at A-level, and whether or not they regularly used a foreign language at home and their decision to consider (1) cheaper higher education alternatives in the UK, (2) overseas institutions, and (3) not entering higher education. There was a significant association between a student's gender and whether or not they were considering entering higher education [$\chi^2(1) = 9.47, p < .01$]. Some 27.4% of males were considering not entering higher education compared to only 20.7% of females. The Pearson chi-square test for students with different socio-economic backgrounds was not significant, thus offering no support for proposition 2. The relationships between student intention to consider cheaper higher education alternatives in the UK and each of the groups categorised by gender and socio-economic grade were found to be not significant. Nevertheless, 16.5% of males and 20.4% of females said that they intended to consider cheaper higher education alternatives in the UK.

Surprisingly, when examining students' intentions according to their socio-economic grade it was found that students from middle class backgrounds were most likely to consider looking for cheaper alternatives; 19.1% of students from socio-economic grade A (professional) and 19.4% of students from grade B (managerial) intend to consider cheaper alternatives in the UK. In contrast, only 15.7% of students from socio-economic grade D (unskilled) said they would consider cheaper alternatives. Thus, proposition 3 is not supported.

Some 36.0% of the respondents said that they would consider undertaking their higher education at an institution located overseas, thus offering little support for proposition 5. There was little difference between the responses of males and females. Unsurprisingly, it was students from socio-economic grade A (professional) who were most likely to consider overseas study – 42.6% said that they intended to consider it. However, many working-class students were also prepared to consider overseas study: 28.9% of grade D (unskilled) students and 34.8% of grade C2 (skilled). There was a significant association between a student's socio-economic background and their intention to consider overseas study [$\chi^2(5) = 18.32, p < .000$]. There was also a significant association between whether or not a student was studying a foreign language at A-level and their intention to consider overseas study [$\chi^2(1) = 36.24, p < .000$]. Some 55.9% of students taking a foreign language at A-level said they would consider studying overseas compared to only 33.3% of those who were not taking a foreign language, thus offering support for proposition 6. The Pearson's chi-square tests for gender and students using/not using a foreign language at home were not significant.

Discussion, conclusion and implications

Financial issues emerged as the most important factor from the exploratory factor analysis, confirming previous research that has stressed finance as an important consideration of students (Leslie and Brinkman 1987; Heller 1997; Mazarol and Soutar 2002; Foskett, Roberts, and Maringe 2006). This factor is more important than institutional quality, institutional and country reputations, and entertainment and atmosphere on campus. All things being equal, this would imply that the increase of tuition fees in England in October 2012 will likely affect students' study choices. This is confirmed by the findings on students' consideration of alternatives, with a quarter of respondents

considering postponing university studies and almost one fifth considering cheaper higher education options.

Looking at background factors, the impact of gender confirms earlier studies that found differences between males and females (e.g. Dickson 2010), although there is very limited research specifically on financial issues impacting upon male and female choices differently. The findings regarding the impact of socio-economic background are somewhat surprising in the light of recent UK studies (e.g. Callender and Jackson 2008) that point at a fear of debt. Part of the explanation could be that entry into higher education – in the context of increasing participation rates – is gradually becoming the norm for students from various social backgrounds. In other words, despite different perceptions of financial debt, students from working-class backgrounds may feel compelled not to lose out and therefore opt to enrol in higher education. Another part of the explanation is that students from all social classes have gradually become more risk and debt averse and that, consequently, differences between the groups of students have begun to disappear. It also should be taken into account that students from high class backgrounds may initially prefer to study at the elite institutions charging the highest fees and study the subjects that are most expensive, such as architecture, law and medicine (Van de Werfhorst, Sullivan, and Cheung 2003), but now feel the need to ‘shop around’ to find institutions offering equivalent quality and status as the very ‘top’ institutions but at lower prices.

In sum, the data seem to point at increasing anxiety regarding the financial issues in English higher education, affecting the study choices of *all* students. The latter may also explain why we found a considerable percentage (36%) of students considering to study overseas, a much higher percentage than current outgoing degree mobility data show (King, Findlay, and Ahrens 2010). Apparently the shock effect of the significant increase of fees stimulates the students to consider a broader range of study options. Caution is however warranted, for at the time of the previous fee increase (to £3,000 in 2006/07) in England and Northern Ireland there was a shock effect as well, but particularly in the first year of the new fee regime. In subsequent years, student numbers were (again) on the rise.

Our study adds to the further understanding of study choices of pre-university students. Acknowledging that we measured aspirations and not definitive choices, we argue that the research design brought us close to investigating real choices, also stressing that much previous research on student choice has surveyed students who have already made a choice (i.e. they are already enrolled in higher education). Our target population of year 12 sixth form students will have had to make choices for higher education (or not) within 5-8 months after the time our survey questionnaire was administered. We have broadened the approach to the study of student choice. We have not only considered the impact of push and pull factors on going to higher education or not, but have included in our choice scenarios the consideration of looking for cheaper higher education alternatives and of looking for higher education abroad. This brings our study from a focus on widening participation and access into the realm of the dynamics of increasing choice in a globalised world. The data point in the direction of a complex set of pull factors that affect students in their choices under the influence of a general (financial) push factor.

For university strategists (and teaching/learning officers and marketers), it is somewhat reassuring that student choices can be influenced. Financial imperatives play a key role, but as much as this may negatively affect student choice, there is scope for institutional strategies that could counter some of these effects. Offering bursaries to students may correct some of the negative outcomes, although offering such bursaries on a large scale may not be the most efficient institutional strategy, given the current economic climate. The findings suggest, however, that not only financial imperatives play a role; also, the factors of entertainment and atmosphere on campus and of institutional quality and reputation do matter. The latter factors can to a certain extent be influenced by institutional strategies supportive of creating a positive atmosphere and providing all sorts of entertainment. Possibly, university strategies geared towards improving the quality of teaching and learning and increasing the institutional reputation are most effective in trying to influence student choice patterns.

For policy-making, the study may not offer clear-cut suggestions. One scenario suggested by the data is that students make different choices within the UK or English higher education system, but that there will be no net effect in the longer run in terms of large groups of students leaving the

country or not entering higher education. In other words, students may seek alternative routes into higher education, turn to for-profit providers or enrol in higher education at a later stage in life, but may overall not be deterred from attending higher education. A second scenario suggests that the cumulative effect of the changes in the fee structures (with most publicly funded institutions charging £8,000-9,000, and only eight institutions charging fees below £7,000, most of these being colleges) and the student financial support system, mixed with dynamics not under the control of the UK or English government (low or no fees in many continental European systems, many programmes offered in English) may be a dangerous cocktail, leading many students to make alternative choices.

First they may consider (for the moment) not entering higher education, as suggested by application levels at January 2012 being 7.4% lower for 2012/13 compared to 2011/12, and application levels of UK students dropping by 8.7% (UCAS, 2012). We found that almost a quarter of A-level students considered not entering higher education (a pattern not different from recent years). Combining the UCAS and our findings, it appears that particularly mature students and those with other (e.g. vocational) entry qualifications are more likely to consider not entering higher education. Second, many students are seriously challenged to look for a course abroad, confirmed by emerging evidence such as a strong increase in interest of English students to study in the Netherlands (see e.g. Grove 2011). This less rosy picture, based on our data and other research, is in rather sharp contrast with the moderate impacts, predicted by the government (BIS 2010). A paradoxical situation may emerge in which many foreign students seek a quality education in the UK, whereas at the same time, many home-grown students flee the country in search of an affordable education.

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