



Department
for Business
Innovation & Skills

**Tracking the Decision-making of
High Achieving Higher Education
Applicants**

November 2012

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The views expressed in this report are the authors' and do not necessarily reflect those of the Department for Business, Innovation and Skills

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Glossary

Applicant type: The attributes of a high achieving A level applicant regarding at least one or a combination of the following: the grades they were predicted at GCE A level (AAA+/AAB-BBB/BBB+) the subjects they studied (academic/non-academic), the period in which they applied (October/January) and the HEI to which they applied (most selective HE or HE (excluding most selective)).

Centre type: The centre type from which the applicant progressed, this being one of the following: further education college, grammar school, independent school, other, sixth form college, or state school (excluding grammar).

Contingent decision-maker (“I’ll get the best I think I can”): Decision-makers who are less confident, less competitive, less assertive and whose HE decision is based on numerous factors. Decisions are often subject to a lack of self-efficacy (a lack of belief in their own competence), which can be attributed to a home, social or institutional environment that does not provide a model for attainment at the level of selective HE.

Determined-decided decision-maker (“I’ll get the best I can”): Decision-makers who are confident, competitive, assertive and are inclined, by virtue of the home, social and institutional environments, to apply only to the most selective institutions

Determined-decisive decision-maker (“I’ll get the best for me”): Decision-makers who are confident, competitive, assertive and make HE decisions based on course choice. Decisions tend to be informed, rational and highly independent, often going against conventions in their social and institutional context.

High achiever: an applicant who was predicted to achieve at least three grade Bs in their GCE A levels.

Most selective HE applicant: An applicant who applied to at one or more universities belonging to the Russell Group or 1994 Group and no Other universities (ie no institutions that are not classified within the Russell or 1994 Group of universities)

HE (exc most selective) applicant: An applicant who applied to a maximum of one university belonging to the Russell Group or 1994 group, and a minimum of one Other university (ie one institution that is not classified within the Russell or 1994 Group of universities)

Intervention: a factor under investigation which impacts, or is believed to impact, the application pattern of high achieving students.

Top achiever: an applicant who was predicted to achieve at least three grade As in their GCE A levels.

Executive summary

In order to support young people's higher education decisions, the Department of Business Innovation and Skills together with the Sutton Trust commissioned UCAS to investigate the decision-making process of high achieving A level students. Previous research has shown that even when students possess equivalent qualifications, socially and academically selective schools are likely to exhibit higher than average application and participation rates at leading universities. This study adds a further dimension to this body of research by exploring the application behaviours of equally capable higher education applicants at an individual level, considering the interaction of structural contexts and individual attributes before and during the decision-making process.

Surveying was used to gain a broad understanding of issues pertinent to high achieving students when making their HE decisions. Key attributes of the sample high achieving population were:

- The largest proportion of high achievers (47%) sent their applications to at least two or more of the most selective institutions.
- Proportionally, independent schools exhibited the highest application rate to the most selective HE (73%), followed by grammar schools (53%) and state schools (42%).
- Independent school students were almost twenty times more likely to make two or more applications to the most selective institutions over other institutions. Grammar school students were 5 times more likely, and state school students 3 times more likely, to make the majority of their applications to selective institutions over other institutions.

Course and course content were key deciding factors for all young people when choosing their higher education institution. With the exception of this consistent factor, analysis of high achievers' expressed behaviours revealed that differences in their decision-making were aligned to the type of HE to which they were applying. Cross-analysis of high achievers' behaviours against their attributes revealed that these differences in the HE type being applied to were more prominent than differences in educational background. In particular,

- High achievers applying to the most selective universities exhibited a tendency to base their decisions on social indications of prestige and academic excellence, and displayed a stronger sense of self-efficacy (belief in their own competence). In comparison to their peers who did not apply to the most selective HE, their decisions were strongly influenced by: league tables (65% ranked this as very influential in their decision-making compared to 32% of applicants to HE (excluding most selective)); academic reputation (86%: 62%); and the idea of challenging themselves (46%: 32%). For them, the importance of course and

course content was more closely related to the institution at which they would be studying.

- High achievers who chose not to apply to the most selective universities showed a greater concern for the practicalities of attending university, such as: employment prospects upon graduation (74% ranked this as highly influential compared to 57% of applicants to the most selective institutions); cost of living (39% : 25%); and distance from home (46% : 28%). The importance of course and course content for them was founded in the usefulness of that qualification to enter the world of work.

Further to this, the study showed that young people bring different mindsets to the decision-making process in terms of pragmatism, career orientation, and self efficacy. These can be summarised as:

- Determined-decided (“I’ll get the best I can”): High achieving applicant to the most selective institutions. Decision-makers who are confident, competitive, assertive and are inclined, by virtue of the home, social and institutional environments, to apply only to the most selective institutions.
- Determined-decisive (“I’ll get the best for me”): High achieving applicant to HE (excluding most selective). Decision-makers who are confident, competitive, assertive and make HE decisions based on course choice. Decisions tend to be informed, rational and highly independent, often going against conventions in their social and institutional context.
- Contingent (“I’ll get the best I think I can”): High achieving applicant to other institutions. Decision-makers who are less confident, less competitive, less assertive and whose HE decision is based on numerous factors. Decisions are often subject to a lack of self-efficacy, which can be attributed to a home, social or institutional environment that does not provide a model for attainment at the level of selective HE. Students who made a decision with a contingent mindset often tended to regret their HE decision on reflection, wishing instead that they had aimed higher rather than constraining their opportunities based on their perceived abilities and capabilities.

These mindsets are dispersed across various educational backgrounds, and while this research cannot and does not attempt to dismiss the idea that differences across centre types exist, it shows that there are deeper underlying processes in HE decision-making. It also provides a starting point for policy discussion as the existence of these mindsets has significant implications for support offerings. The research gives an indication that those high achievers applying to the most selective HEIs have a broader awareness of the diversity of HE available to them, implying that more needs to be done to inform determined-decisive and contingent decision-makers about the HE sector. In particular though, the research points towards the need to work with contingent decision-makers to improve their self-efficacy, thereby removing the constraints on their decision-making

and ensuring that they have the same opportunities and decision-making skills as their peers.

1. Introduction

In 2004 the Sutton Trust's report "The Missing 3,000" highlighted startling discrepancies in participation rates at the United Kingdom's leading universities amongst students from different centre types. It reported that at leading universities, participation rates for state school students who had the appropriate qualifications and had chosen to progress to higher education (HE) were lower than would be expected: each year from 1997 to 2002 approximately 3,000 state school students were missing from the admissions data for leading universities (based on entry qualifications obtained by the students and subjects taught at the institution). Further work by the Trust in 2008 ("University Admissions by Individual Schools") supported these findings demonstrating that a few highly socially and academically selective schools dominated admissions to the UK's leading universities. In 2009, collaborative work by the Sutton Trust and BIS (entitled "Applications, Offers and Admissions to Research-Led Universities") confirmed these findings and advanced them by demonstrating that centre-type variation in participation rates at the most selective institutions could largely be explained by centre-type variation in application rates. For example, socially and academically selective schools exhibit higher application rates to leading universities, and as a result exhibit higher participation rates at such institutions. This phenomenon is well documented and widely recognised (as evidenced by government and institutional interventions designed to widen participation to even the most selective universities). It is also persistent.

One reason for the persistence of this can be attributed to a lack of understanding about the multiple factors that might contribute to certain centres exhibiting higher application rates to leading HE than others: the social circumstances, beliefs, attitudes and behaviours of high achieving students from all progression routes (for terms of reference see Appendix 1). Is it the case that these students want to attend the most selective institutions but are in some way prohibited from doing so, perhaps because they feel they are not capable of doing so? Or is it the case that they are aware of their capability to attend HE, but through a process of entirely rational decision-making have decided not to? If the former is true then efforts can be made to mitigate the prohibiting factors and simultaneously reinforce drivers of social mobility through HE; if the latter is true then it may call for reconsideration of both centre type and university type stereotypes in favour of a deeper understanding of student decision-making. In order to understand why some high achievers continue not to apply to leading higher education institutions, this research comprises a unique primary investigation into the decision-making process of high achieving applicants to HE.

The specific questions driving this research are:

1. Are certain individuals still more or less likely to apply to the most selective HE? Is there a relationship between centre type attendance and the likelihood of applying to selective HE, and does this relationship change once predicted performance is accounted for?

2. Are disparities in application patterns to the most selective HE among groups of students solely attributable to differences in preferences for particular courses or institutions, or does the presence (or absence) of mitigating or reinforcing interventions (information, advice, guidance, preparatory work, preliminary research) play a part?
3. What are the differences in the decision-making processes of high achieving students who did and did not apply to the most selective HEIs?

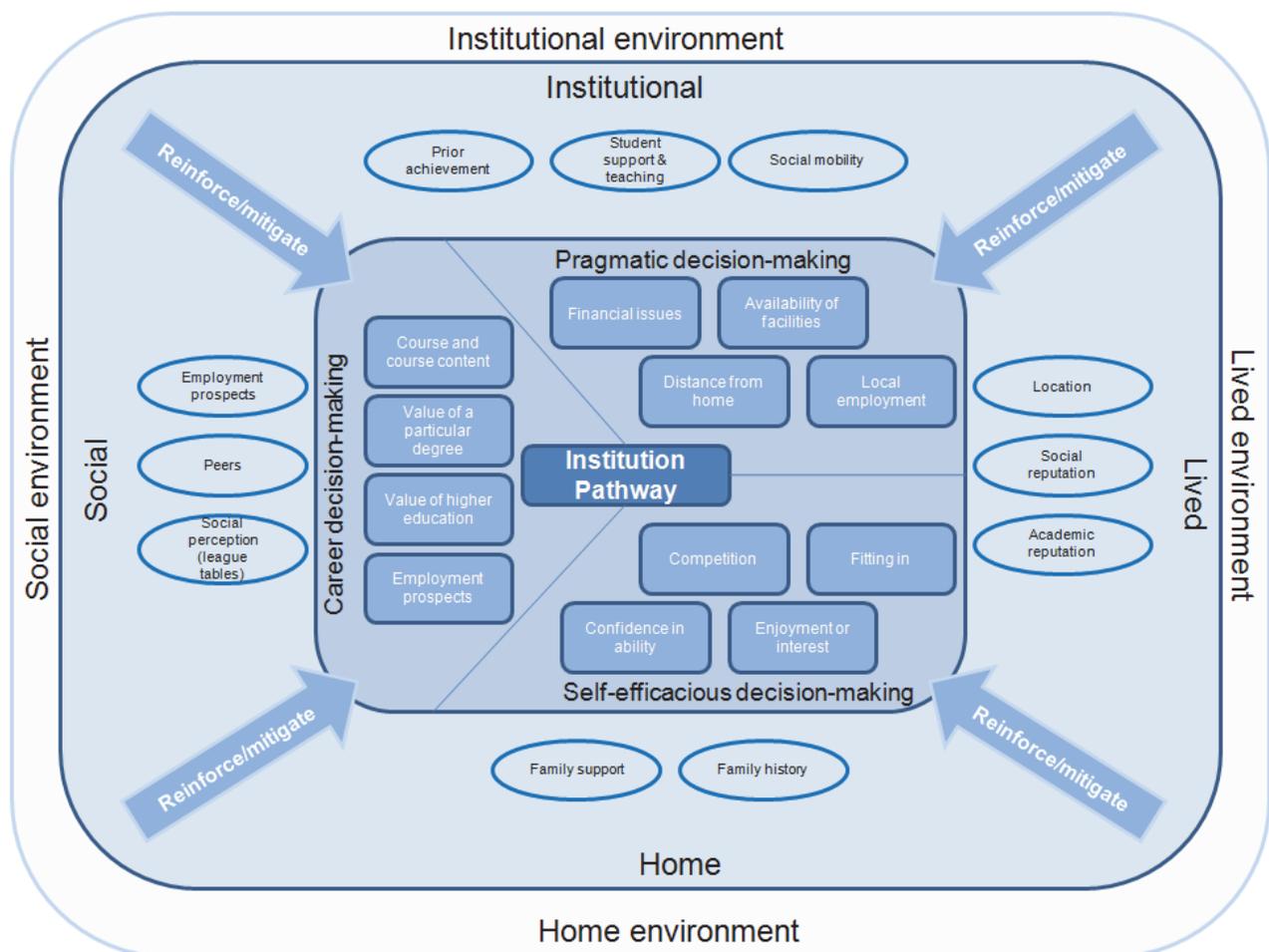
The report progresses as follows: first the approach taken will be outlined and justified, providing a solid foundation for understanding the methodology employed in the research. Following from this, the findings will be presented. First the attributes of high achieving applicants to HE will be identified and compared to the attributes of the wider applicant population. Second, the factors found to be contributing to the decision-making process of high achievers will be discussed thematically and third any similarities or differences observed among these will be used to frame the admissions experiences of those who applied to the most selective HE and those who did not. Following these analyses, a section will be dedicated to discussing findings and their implications for future research.

2. Approach

The approach taken in this report is to consider findings within the frame of reference of a model of decision-making. By providing a basic concept for understanding the multiple factors and multiple realities that are believed to constitute an individual's HE decision¹, the model (

Figure 1;

Figure 2) serves as an analytical device rather than a definitive description of high achievers' decision-making.



¹ Previous research has highlighted the importance of unitary influences (such as employment prospects post-HE, perceived academic capability for HE, support from friends and family) that might effect HE decisions and these are incorporated into the model. See Paton (2007a), Paton (2007b), Ball & Vincent (1998), DEEWR (2009). These factors are included in the model because they are investigated explicitly in this study's survey and interview research.

Figure 1: Model of higher education decision-making

The model, a hybrid of economic rationality and structuralist models of decision-making, recognises the importance of individual agency and identity as well as the role of external structures (the economic and socio-cultural constraints which determine the progression path of an individual). It has been designed specifically to aid analysis of the areas under investigation in this study, and to help conceptualise these often disparate elements in a coherent and systematic format.

The individual is assumed to hold a mixture of positive or negative beliefs about their suitability for HE which they evaluate when they making their HE decision. This process involves weighing-up their perceived strengths and the expected gains in utility (opportunities) as a direct result of HE participation against their perceived weaknesses and the potential losses in utility (threats) they might experience. The external environment forms the context in which the individual makes this decision and is omnipresent throughout the decision-making process. At certain points the external environment may play an active role in the individual's decision by intercepting their agency and acting either to reinforce or mitigate the individual's beliefs about their suitability for HE. At such points, an intervention (for example, encouragement from a teacher, or negative reviews by students at the university) has been made to adjust the individual's identity as a HE applicant². This serves as a useful tool for investigating the HE decision-making process of individuals and how it might be influenced by external interventions.

In the context of this research the model will be used to demonstrate differences in decision-making experienced by a specific group of decision-makers: high achieving applicants to HE. Using participants who are already applicants to HE means their decisions about attending are already known. This enables focus to move away from the established non-participation in HE debate and towards a more targeted area of investigation: non-participation in the most selective HE. In doing so, the investigation will seek to identify the relative importance of individual influences (those incorporated in the model), how they are interpreted by different types of high achiever, and the repercussions of such interpretations.

² In this model it is assumed that the external environment can act to either enhance or reduce the individual's likelihood of attending, or applying to attend, higher education.

Definitions:

Institution pathway: The final decision the applicant will make regarding their preferred institution (the decision between applying to the most selective institutions or not).

Layer 1 (Pragmatic, career and self-efficacious decision-making): The individual, micro-layer of decision-making wherein the individual weighs up elements of their personal situation, their personal goals, and their personality. These elements are not mutually exclusive but rather overlap and interact with one another in the build-up to the individual's final decision, and can either act as drivers or constraints to applying to the most selective institutions.

Layer 2 (Home, social, lived, institutional): The sources of various external forces which, if present, can positively or negatively intercept or intervene with the individual's decision.

Layer 3 (Home environment, social environment; lived environment; institutional environment): The wider, macro-layer of decision-making comprising influences such as parents (home), friends (social), media and marketing (lived), and school (institutional). The context in which the individual's HE decisions are made.

Elements of individual decision-making

1. Pragmatic decision-making: Elements of the individual's decision that are dictated by need. Most strongly influenced by their institutional, lived and home environment.

- Financial issues: The need to be able to fund oneself through HE and afford the cost of living as a student
- Distance from home: The need to attend an institution close to home
- Availability of facilities: The need to have access to special facilities whilst at universities
- Local employment: The need to have the opportunity to work throughout the period of study

2. Career decision-making: Elements of the individual's HE decision that are subject to their future desires. Most strongly influenced by their institutional, social and home environment.

- Value of course and content: The perceived value of studying a particular course, regardless of where it is studied
- Value of particular HE: The perceived value of studying at a particular university, regardless of what subject is studied
- Value of HE: The perceived value of attaining a HE qualification
- Employment prospects: The perceived value that holding a degree will add to post-graduation employment prospects

3. Self-efficacious decision-making: Elements of the individual's decision-making that are subject to their belief in their own competence. Most strongly influenced by their social, home and lived environment.

- Confidence in ability: The individual's belief in their ability to achieve highly, both in their A levels and beyond
- Competition: The individual's reaction to pressure and competition
- Enjoyment or interest: The individual's desire to study at a higher level
- Fitting in: The individual's beliefs about their ability to adapt to new social situations

Figure 2: Model of educational decision-making definitions

4. Methodology

In order to enhance its effectiveness as well as its ability to incorporate macro- and micro- level data, the research consisted of a combination of quantitative and qualitative methods. Quantitative data were collected in volume by way of survey responses and used to inform more in-depth qualitative data collection with a smaller interview sample. This method was reflective of the investigatory nature of the research, enabling the exploration of factors in decision-making to be conducted systematically, but within broad, flexible, and non-restrictive themes.

4.1 Quantitative data

- 1st data extraction of UCAS applicant data post 15 October 2009 (*Oxford and Cambridge & medicine, dentistry, veterinary deadline*) of all applicants with at least three B grades predicted at A level. Variables included: applicant type, centre type, HEI type (for a full list of definitions see Appendix 1).
- Invitations were sent to students identified by the first data extraction to complete an online questionnaire on which was opened from 16 November 2009 to 31 July 2010.
- Survey questions were designed to elicit information such as: why the applicant chose the institutions to which they applied; what sort of information, advice and guidance (IAG) was provided at the applicants' schools/colleges; whether applicants were part of the Young, Gifted & Talented programme; whether applicants would be willing to be contacted again (for a copy of the survey see Appendix 2)³.
- 2nd data extraction post 15 January 2010 (*general application deadline*) of all applicants with at least three B grades predicted at A level. Variables as above.
- Survey invitations were sent to students identified by the second data extraction. This invitation also acted as a reminder to students identified by the first data extraction to complete the survey.

³ It should be highlighted that in the email invitation to participate in the study, potential respondents were identified as high achievers. In doing so, responses may have been biased, because being labelled a high achiever could have incited positive or negative reactions in the participants. In designing the survey, incurring the observer's paradox (Labov, 1972) was inevitable. However, it was decided that identifying respondents as high achievers was more as an incentive for them to respond than a factor that might distort their responses, but when interpreting the survey findings it is important to recognise that this may have influenced some responses.

4.2 Qualitative

- Three phases of interviews were conducted to elicit students' experiences of the admissions process whilst they were in it (April to June 2010), directly after it (September to October 2010), and with the benefit of hindsight once they had been placed at university (April to May 2011). Each interview stage had different objectives and involved a different quantity of participants. As far as possible, participants were encouraged to participate in all three stages.
- Interview phase one (50 interviewees): Aimed to confirm and expand on survey findings, uncovering deeper understanding of the thought and decision processes for high achievers prior to attending HE. The broad design of the interview enabled themes at the level of HEI type (most selective HE/HE (exc most selective)) to emerge.
- Interview phase two (50 interviewees): Aimed to assess how satisfied applicants were with their decisions by reflecting on whether they made the correct decision or whether they would have chosen differently having known what they now know at this stage of admission to HE, focussing specifically on the usefulness of advice and guidance in decision-making. It also aimed to discount certain themes as important in high achievers' decision-making.
- Interview phase three (35 interviewees): Reaffirm themes from the survey and interview phases one and two, and encourage interviewees to think reflexively and in specific detail about their experiences of applying to HE. This is done with a view to understanding the effects, either constraining or encouraging, of internal and external pressures on the students (with a particular focus on the impact that their school environment had on their decision-making). Understand what, specifically:
 - inspired high achievers to aspire to higher education
 - influenced or motivated high achievers to apply to a specific type of institution and course
 - instilled or undermined confidence in them

4.3 Survey population and sampling

The population of survey respondents obtained⁴ consisted of 13,457 high achievers and represented approximately 11% of the total high achieving A level applicant population within the 2010 HE admission cycle, and approximately 5% of that year's total A level

⁴ The means of obtaining this population had both advantages and disadvantages: by inviting all high achieving A level applicants within the 2010 HE admissions cycle to participate in the research the method allowed for more or less random selection; however, a natural bias may have occurred within the population because high achieving applicants who did respond may have been more engaged with or more strongly opinionated about the application process than those who did not. It is important to appreciate that these factors might have had an influence on respondents when interpreting the research findings.

applicant population (defined in this context as applicants taking at least three subjects at A level). Due to the very different characteristics of the total A level population and the group under investigation it was not necessary to compare their populations, but in order to establish its representativeness it was important to compare the survey population to the wider high achieving A level applicant population.

The survey population was largely representative of the high achieving A level population in terms of centre type attendance, HEI type preference, and predicted grade categorisation, although some instances of minor over- or under-representation did occur (for a comprehensive breakdown of the sample see Appendix 3). Such instances may have been the result of natural bias in research participation towards more engaged applicants, but did not distort the respondent population enough to warrant it invalid.

As far as possible, taking into account loss of engagement and natural drop-out levels, interviewees were selected to reflect the make-up of the survey population. The composition of the interview sample can be seen in

Table 1.

		Phase 1	Phase 2	Phase 3
Total number of interviewees		58	50	31
HEI type application break-down	Most selective HE	26	22	18
	No most selective HE	12	10	12
	Combination	20	18	1
Centre type break-down	Further Education	8	10	4
	Grammar school	10	8	5
		10	6	4
	Independent school			
	Other	1	1	0
	Sixth form	13	9	10
	State exc grammar	16	16	8
Applicant type break-down	AAA+	41	36	21
	AAB-BBB	17	14	10

Table 1: Composition of the interview sample

4.4 Analyses

The analyses within this report are presented in three main sections. Two distinct sections dedicated to investigating the attributes of high achievers and the factors, both internal and external, that influence their decisions precede a final section summarising these findings in the context of a decision-making process. These three sections

individually address and provide answers to each of the research questions outlined in the introduction:

- Are certain individuals still more or less likely to apply to the most selective HE?
- Are disparities in applications to the most selective HE among groups of students solely attributable to differences in preferences for particular institutions or courses, or does the presence (or absence) of mitigating or reinforcing interventions play a part?
- What are the differences in the decision-making processes of high achieving students who did and did not apply to the most selective HEIs?

It is important to recognise that all statistical analyses are based on the responses of the 13,457 high achieving students who participated in the survey, whilst further qualitative analyses are drawn from the 139 interviews conducted. For the purpose of this report:

- analysis details only the findings of the two most extreme groups of applicants: those applying to the most selective institutions (institutions who are members of the Russell Group or 1994 Group) and those applying to anything but the most selective institutions⁵.
- centre type analysis excludes the 'other' category in reporting due to ambiguity over the types of centres that are included in this group.
- applicant type analysis uses the entire high achievers sample; though where appropriate will highlight differences between high achievers and the sub-group top achievers.

Furthermore analysis will only report where there are significant findings within the three main variables HEI type, applicant type, and centre type (fuller analysis of each variable can be found in Appendix 4). This is in order to answer most efficiently the research questions and identify if, where, and indeed why, there are or are not differences in these two groups of applicants' decision-making.

⁵ Applicant to HE (excluding most selective): An applicant who applied to a maximum of one university belonging to the Russell Group or 1994 group, and a minimum of one Other university (ie one institution that is not classified within the Russell or 1994 Group of universities)

5. Attributes of high achievers

Amongst high achieving applicants, there is a polarisation between the attributes of those who apply to the most selective institutions and those who do not ([Figure 3](#)). Not taking into account centre type, those applying solely to the most selective institutions are characterised by being far more likely to have been top achievers (to have been predicted three As at A level) to have studied academic A level subjects, and to have sent their application in advance of the 15th October deadline (Figure 5).

At the level of analysis including centre type, differences were observed that suggest that centre type attendance does impact the likelihood of progression to the most selective universities, in so far as:

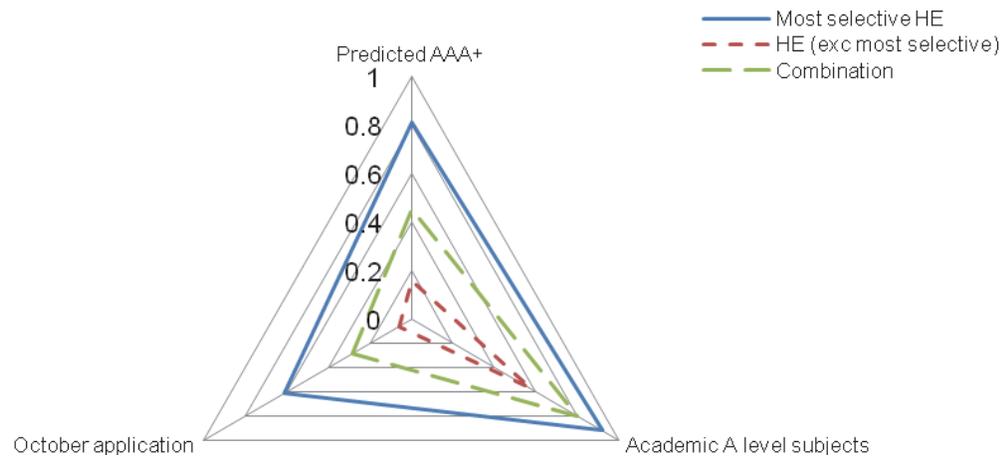
- On average, high achievers from selective schools (independent and grammar schools) are most likely to make all their applications to the most selective institutions and least likely to make all their applications to other institutions. High achievers from non-selective schools, however, were on average more likely to spread their applications across a combination of institutions rather than to polarise their applications to any one particular group (Figure 4).
- Independent school students were most likely to have applied solely to the most selective institutions, to have been predicted at least three As at A level, to have studied at least two academic subjects at A level and to have sent their applications before the 15 October deadline.
- FE students are least likely to have applied to selective institutions, to have been predicted three As at A level, to have studied at least two academic subjects at A level, and to have sent their application before the 15 October deadline.
- The application pattern of grammar, state and sixth form college students fell somewhere within the extremes of these two profiles (Figure 4), with the application pattern of grammar school students most closely reflecting that of independent school students, and the application pattern of sixth form students most closely reflecting those of FE college students.

These discrepancies could be interpreted in numerous ways, and it is the purpose of this investigation to now uncover what factors were at play to cause such variation. For instance, several elements warrant further investigation:

- Students from different centre types had different priorities (i.e. were influenced by different aspects of a university degree)
- Students from certain centre types were less aware of their options going into HE – either they received less support during application or they were less prepared for HE

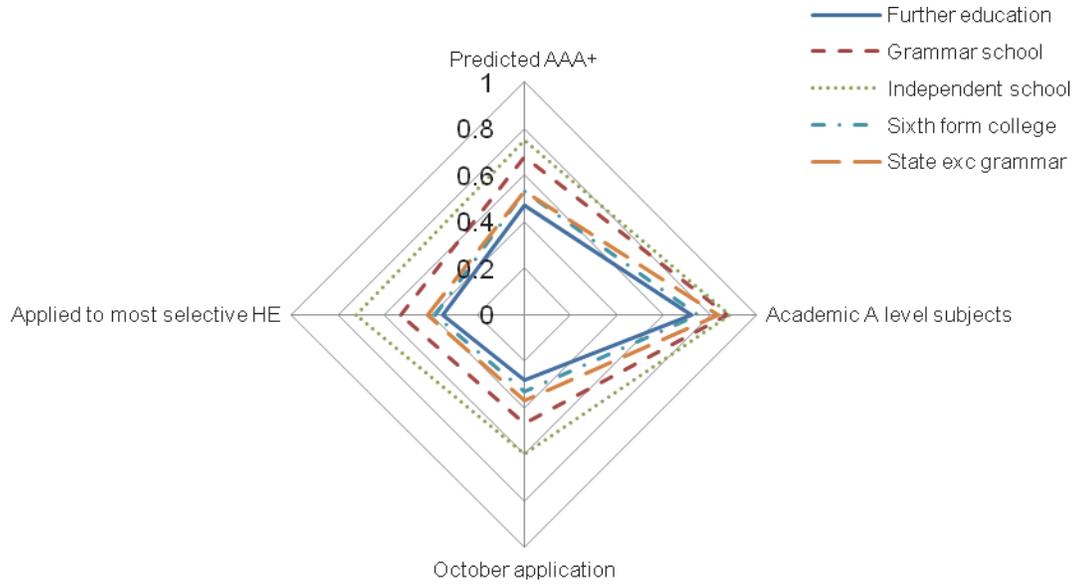
- Students from certain centre types were less confident in their applications to HE, preferring to hedge their bets by applying to a combination of selective and other institutions
- Students from certain centre types did not aim as high as students from selective schools, despite them all being high achievers
- Students from certain centre types simply did not want to go to the most selective HE (perhaps because of the availability of courses)

These factors, or interventions, will be explored with a view to uncovering what impact they had on the application patterns observed among high achievers.



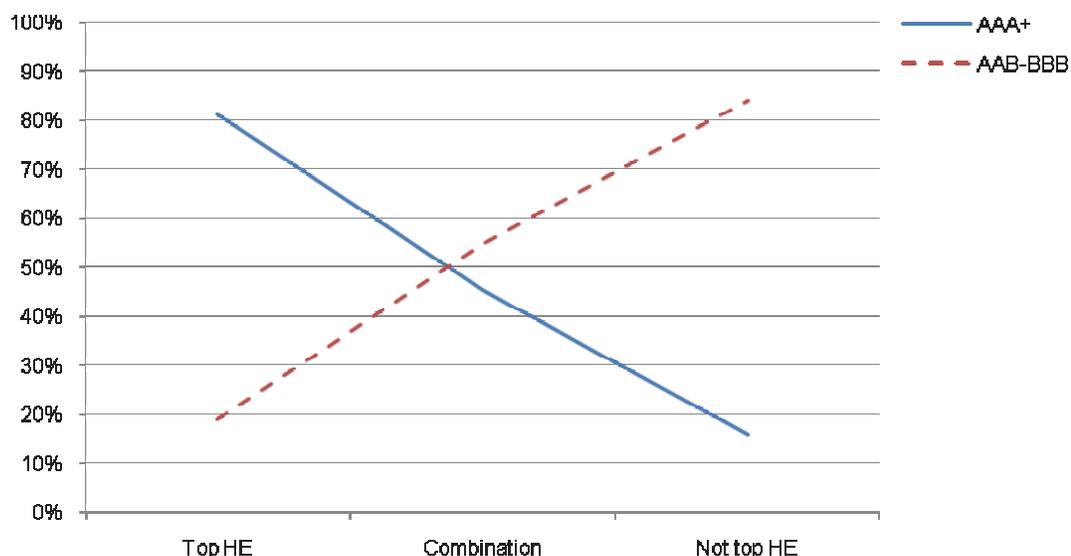
Applicant attributes	Most selective HE	HE (exc most selective)	Combination
Predicted AAA+	0.811	0.158	0.453
Academic A level subjects	0.919	0.573	0.799
October application	0.609	0.060	0.286

Figure 3: Application patterns of high achieving students by HEI applied to



Applicant attributes	Further education	Grammar school	Independent school	Sixth form college	State school
Predicted AAA+	0.468	0.678	0.747	0.527	0.529
Academic A level subjects	0.717	0.872	0.883	0.744	0.833
October application	0.281	0.467	0.600	0.334	0.368
Applied to most selective HE	0.349	0.529	0.725	0.382	0.418

Figure 4: Application patterns of high achievers by centre type



Applicant attributes	Most selective HE	HE (exc most selective)	Combination
Predicted AAA+	81.09%	15.85%	45.31%
Predicted AAB-BBB	18.91%	84.15%	54.69%

Figure 5: Application patterns by HEI applied to and predicted grade category

5.1 Summary of findings

Key findings arising from the analysis of applications data were:

- The largest proportion of high achievers (47.0%) sent their applications to at least two or more of the most selective institutions showing that irrespective of centre type, high achievers were consistently more likely to apply to the most selective institutions.
- Amongst applicants to the most selective institutions, 81.1% were predicted AAA+ at A level. This was the opposite of applicants to other institutions, only 15.8% of whom were predicted to achieve AAA+ (ie be top achievers as defined in Appendix 1)
- Applicants to the most selective institutions were approximately five times more likely to also have been predicted AAA+ than their peers applying to other institutions.
- Independent school students were 18 times more likely to apply the most selective institutions over other institutions.
- FE students were least likely to apply to the most selective institutions, with 23.8% of students making their applications there
- Analysis of the survey population showed that, much the same as previous research had suggested, independent school students remained the most likely to apply to selective institutions. Appendix 3 contains a breakdown of the survey sample by the variables discussed.

6. Interventions

6.1 Factors influencing decisions

The survey asked respondents to rank on a scale of one to five how important they found 18 factors in their decision-making. These factors mirrored those incorporated in the model, reflecting both potential internal motivations and concerns, and potential external support mechanisms and constraints. Survey responses demonstrated that based on average ranking scores the differences occurring in the factors that influence high achievers are associated with the type of HEI they apply to rather than their predicted level of achievement⁶ or the centre type from which they progressed. This important observation is demonstrated in Figure 6 below and in Appendix 4, parts 1 and 6.

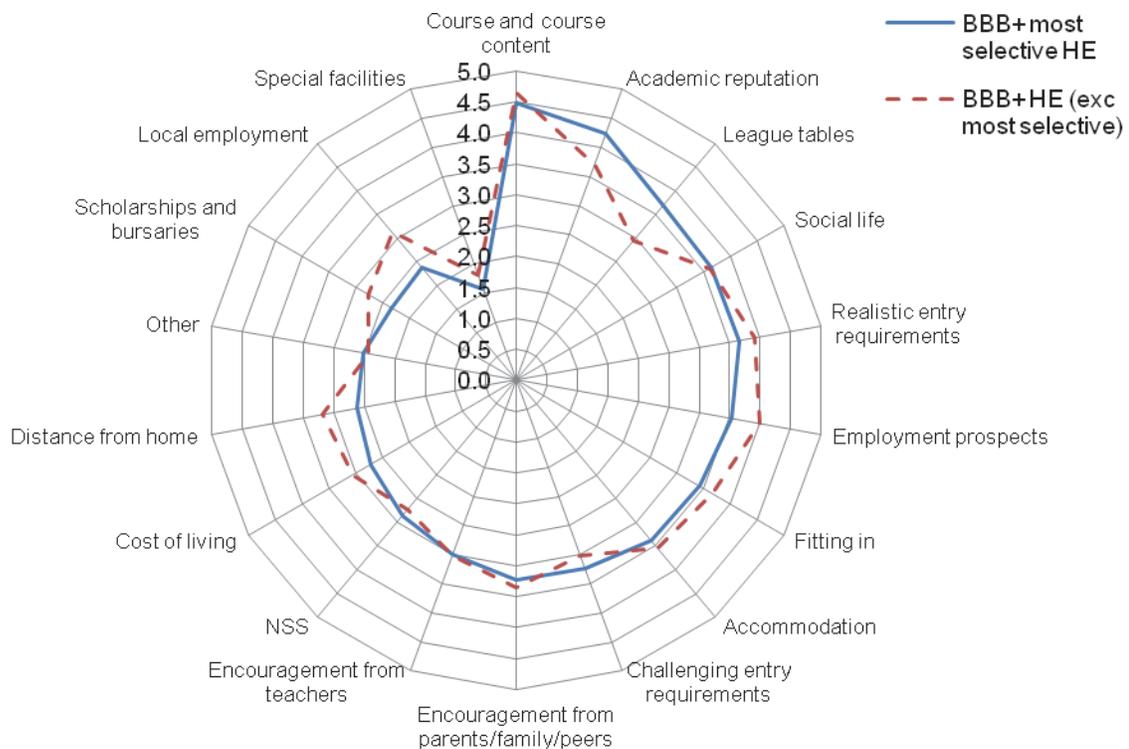


Figure 6: Factors that influence the decisions of applicants to HE

⁶ For this reason, this section of the report focuses on the high achievers group as a whole, rather than high achievers and the sub-group top achievers.

In particular, the top three factors that high achieving applicants to the most selective institutions reported to influence their decisions were: course and course content; academic reputation; and league table results. For applicants to other institutions the three most important factors were: course and course content; employment prospects; and realistic entry requirements.

With the exclusion of the 'other' category and availability of special facilities which both groups rated as being of little importance, applicants to the most selective universities felt that information on the following factors was relatively unimportant: scholarships and bursaries; the availability of local employment; distance from home; and the cost of living. Applicants to other institutions felt that the following factors were relatively unimportant: national student survey results; information on scholarships and bursaries; league table results; and challenging entry requirements.

The difference expressed by applicants to the two groups of institutions begins to suggest that they had a different mind-set when they made their HE decisions. By considering the percentages of applicants within each group who rated certain factors important (

BBB+	Apps to HE (exc most selective)	Apps to Most selective HE
	Ranked very important (≥ 4)	Ranked very important (≥ 4)
Course and course content	93.00%	89.26%
Employment prospects	73.87%	57.07%
Realistic entry requirements	73.25%	64.61%
Fitting in	62.57%	54.12%
Academic reputation	62.13%	85.92%
Accommodation	59.76%	49.89%
Social life	57.98%	61.12%
Encouragement from parents/family/peers	50.79%	45.25%
Distance from home	45.61%	27.67%
Local employment	40.60%	18.15%
Cost of living	39.28%	24.78%
Encouragement from teachers	38.99%	36.92%
Other	32.46%	32.73%
League tables	31.72%	65.23%
Challenging entry requirements	31.70%	45.79%
Scholarships and bursaries	28.38%	19.04%
NSS	25.49%	33.17%
Special facilities	12.42%	8.61%

Table 2), more solid evidence to support this begins to emerge. Although both groups reported that by far and away the most important factor in their decision-making was

course and course content, the factors supporting this statement suggest that each group had a different concept of what in particular was important about the course and its content. Compared to their peers who did not make any applications to selective institutions, applicants to the most selective institutions were twice as likely to rate league tables as an important influence in their decision-making. They were also far more likely to consider academic reputation and challenging entry requirements in their decisions. Conversely, applicants not making any applications to selective institutions were twice as likely to consider the availability of local employment as important in their HE decision. They were also markedly more concerned with availability of local employment, cost of living, and realistic entry requirements being.

BBB+	Apps to HE (exc most selective)	Apps to Most selective HE
	Ranked very important (≥ 4)	Ranked very important (≥ 4)
Course and course content	93.00%	89.26%
Employment prospects	73.87%	57.07%
Realistic entry requirements	73.25%	64.61%
Fitting in	62.57%	54.12%
Academic reputation	62.13%	85.92%
Accommodation	59.76%	49.89%
Social life	57.98%	61.12%
Encouragement from parents/family/peers	50.79%	45.25%
Distance from home	45.61%	27.67%
Local employment	40.60%	18.15%
Cost of living	39.28%	24.78%
Encouragement from teachers	38.99%	36.92%
Other	32.46%	32.73%
League tables	31.72%	65.23%
Challenging entry requirements	31.70%	45.79%
Scholarships and bursaries	28.38%	19.04%
NSS	25.49%	33.17%
Special facilities	12.42%	8.61%

Table 2: Percentage of applicants who rated the listed factors important (rated ≥ 4) in their decision-making

By virtue of their status as an applicant to HE, it was already established that university was an aspiration to all high achievers in the study. Importantly, however, these findings, suggest that applicants to the most selective institutions were a different type of decision-maker to those applying solely to other institutions. For the applicants to selective HE, the emphasis of decision-making was more self-efficacious, looking for indicators from the external environment to validate and rationalise their decisions,

whilst for the other decision-making is more pragmatic and career-oriented, taking into account the costs and benefits of a certain type of HE. Using these findings against the model of decision-making, two different decision paths begin to emerge (Figure 7). At this stage, the presence and influence of only a number of factors incorporated in the model are known. The following sections of the report build on survey findings to investigate the presence and influence of the remaining factors on decision-making.

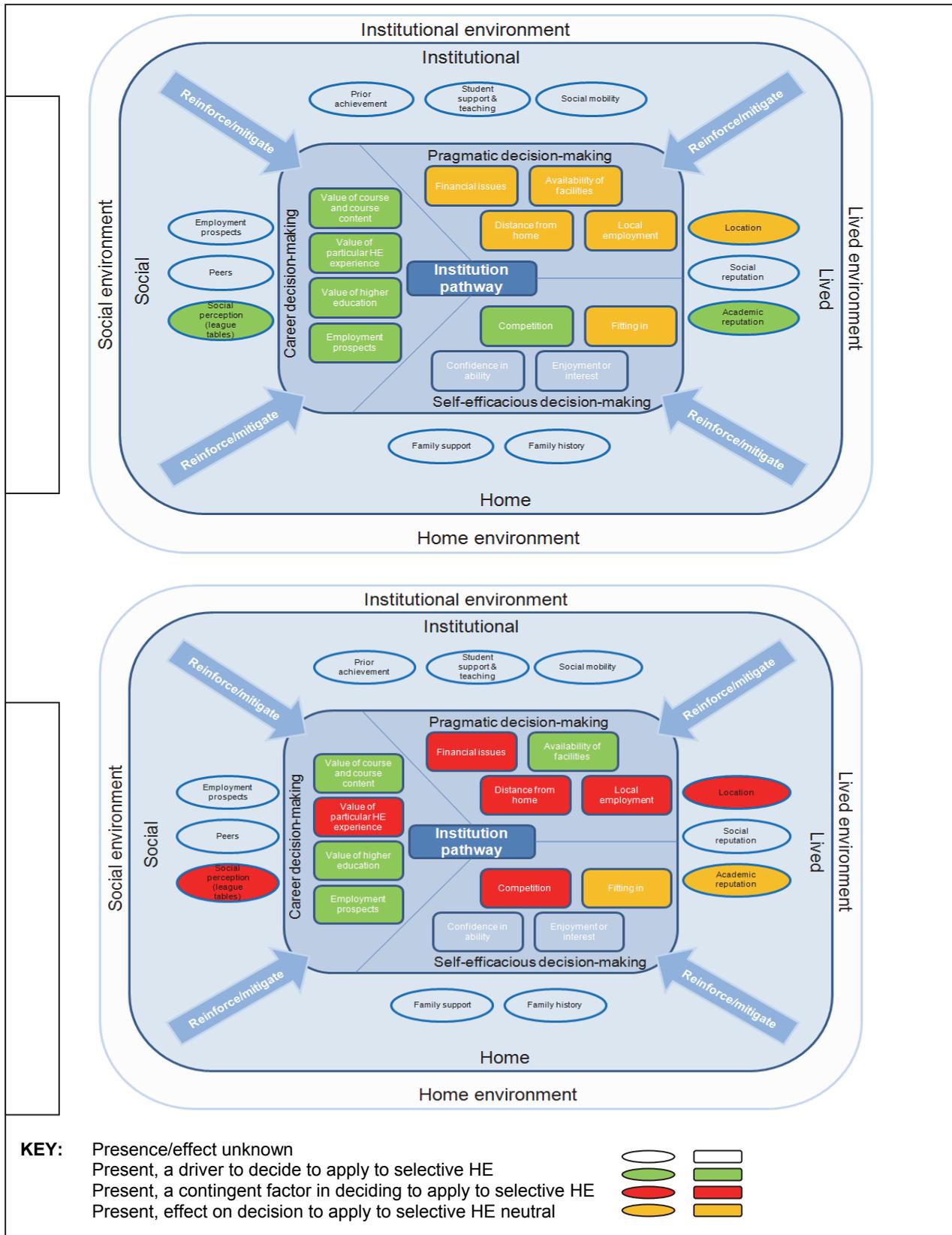


Figure 7: Decision paths of high achievers to the most selective HE and to HE (excluding most selective)

6.2 Advice and guidance

Information gathered on the advice and guidance received by high achieving students in their decision-making pertained to its source and the value they placed on the advice and guidance obtained from these sources. The most common source of advice and guidance across all applicants was their parents and guardians (86.88%); closely followed by their personal tutor (70.22%)⁷. On average, slightly more top achieving applicants to the most selective institutions received advice and guidance from more sources than top achieving applicants to other institutions and applicants predicted AAB-BBB. However, this trend was not notably different to the trends exhibited by their peers⁸.

Further analysis showed that variation in the number of students receiving advice and guidance and the value they placed on it was associated with centre type. On average, respondents from independent schools were most likely to receive advice and guidance, followed by grammar school applicants, state school applicants, sixth form college applicants, and FE college applicants (Figure 8; Figure 9). The dip in the number of FE college and sixth form college students receiving advice and guidance from their head of sixth might be attributed to the size of these centres. This shows that as well as being most likely to apply to the most selective institutions and most likely to be top achievers, independent school applicants are also most likely to have access to sources of advice and guidance, whilst FE college students remain the least likely in all these respects. The evidence suggests a correlation between access to advice and guidance and centre type attendance, which in turn is correlated with applying to the most selective institutions. Other than to demonstrate the presence or absence of advice and guidance, however, it suggests neither the reason for this correlation nor the effects of external forces on the applicant's decision. Are applicants from certain centre types unable to change their decisions and in some way compelled to choose the institution pathway they do, as was suggested in section 5.2, or are their decisions are in some way enhanced or constrained by their environment?

The fact that, with the exception of head of sixth form, students from FE colleges did not value the guidance they received particularly differently from their peers from independent schools goes some way to suggest that if these students' decisions are being constrained, they are unaware of it. They do not know whether the advice and guidance they receive is good or bad because they have no point of reference, and

⁷ Worryingly this implies that even in the best scenario, approximately 12% applicants were not receiving advice or guidance. Non-responders were removed from the analysis so the percentage total represents applicants who actively stated 'no' they had not received advice from this source. This may highlight the issues associated with using surveys to collect data (not all respondents will participate with the same level of objectivity, honesty or engagement) or it may highlight a potentially serious lack of third party support amongst applicants to HE.

⁸ It is important to recognise that receiving advice and guidance did not always imply it was helpful. For example, more applicants stated that they received advice from their personal tutor than from their head of sixth form, yet those who did receive advice and guidance from their head of sixth valued this more highly than advice from their personal tutor. It is also important to recognise that they did not tend to value this advice and guidance any differently, perhaps indicating the difficulty of objectively evaluating anything without knowledge of an alternative or the benefit of hindsight.

therefore cannot form a judgement on it based on any benchmark. Indeed, this is true across all respondents from all centre types, and calls for a more objective investigation of the amount and quality of advice and guidance provided across centre types. Advice and guidance from external sources is intended to improve decision-making but if its effects are unknown then it is important to consider how the applicant themselves can improve their decision-making. Consequently, section 6.3 considers whether knowledge obtained by the individual can impact their decision.

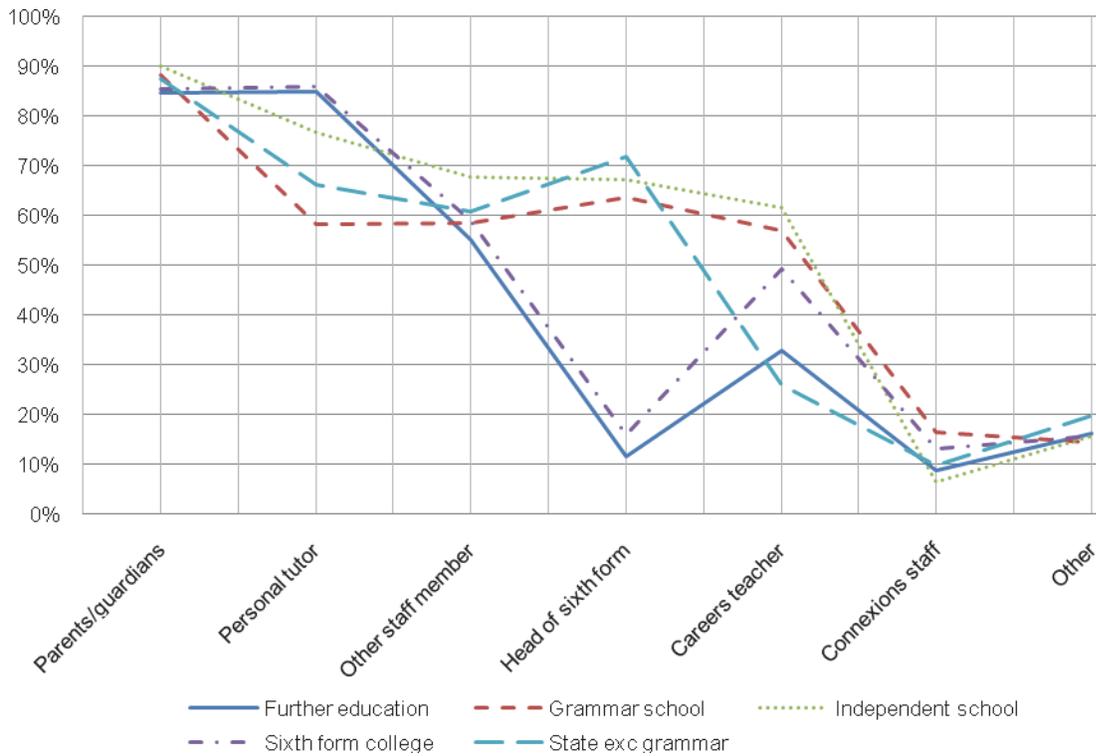


Figure 8: Percentage of applicants who reported to have received advice and guidance from sources listed

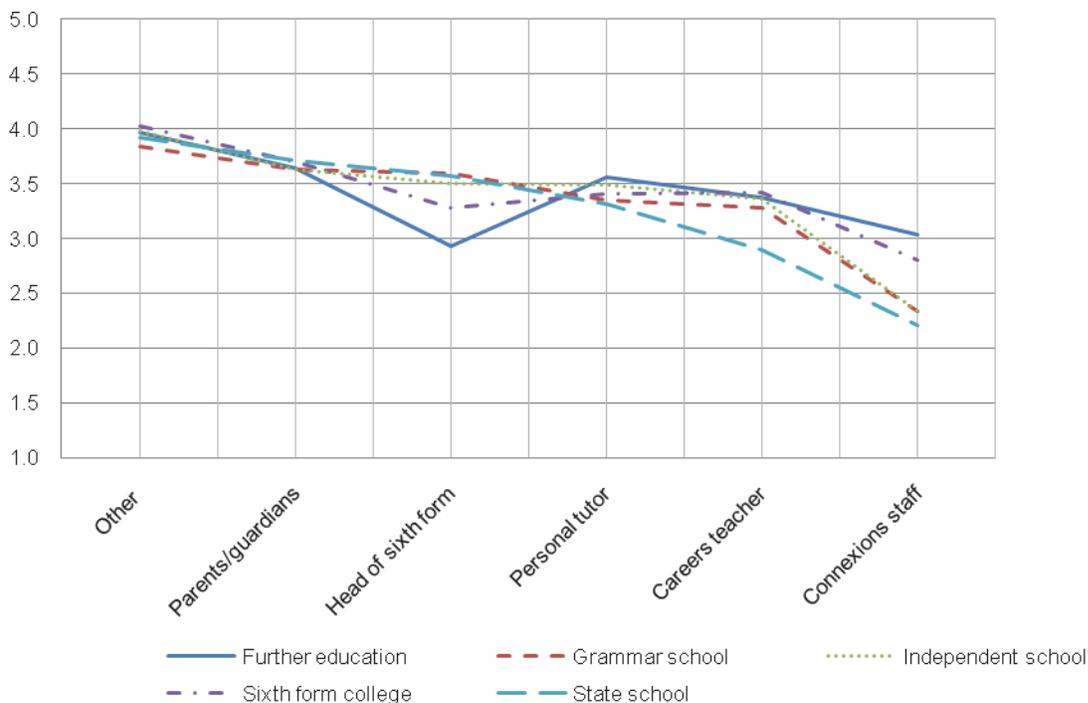


Figure 9: Average rankings of helpfulness attributed to each source of advice and guidance

6.3 Information and preparation

In addition to external sources of advice and guidance, applicants to HE can act to improve their decision-making by informing themselves about their options. Survey analysis showed that the main discrepancy in acquiring relevant information and preparation for HE occurred between top achievers (those predicted to achieve AAA+) to the most selective institutions and all other high achievers. In particular, students predicted AAA+ at A level and who applied to the most selective institutions were twice as likely to participate in the Young Gifted and Talented programme and the Extended Project, and almost three times as likely to participate in the Open University's YASS as their peers who were predicted AAB-BBB and did not apply to selective institutions (Figure 10)⁹.

On average, top achieving students to the most selective HE tended to do the same amount of preliminary research as all other high achievers (Table 3). However, the sources they favoured tended to be more decision-specific (university prospectuses and websites) and connected to their environment (peer, family and school staff knowledge). This supports previous evidence suggesting that top high achievers to the most

⁹ This could be a consequence of effectively targeting top achieving students with such programmes, or it could be the result of higher levels of engagement among these applicants. To provide an answer, it is useful to consider the general levels of engagement demonstrated by this group which can be indicated by the amount of research they did prior to application.

selective institutions are more prone to validate their decisions through self-efficacy. In the context of preliminary research, it is likely that they use modelling (seeing others from their environment succeed gives them confidence in their own ability) and social persuasions (either encouraging or discouraging signals) to reinforce their decisions.

Meanwhile, applicants predicted AAB-BBB and those not applying to selective institutions made considerably more use of the UCAS website. As this provides a course search function, it might suggest that these applicants' decisions were contingent on external factors, such as location, student satisfaction, and fee information. It also suggests that these applicants were not at the same stage in the decision-making process as top achieving applicants to selective institutions because they were still considering alternatives rather than looking for direct sources of information.

In terms of their knowledge of the HE environment (Figure 11), survey evidence again shows that top high achievers to the most selective institutions were the most well informed about the reputation of various universities based on their mission group. There was little disparity between their knowledge and that of other applicants to the most selective institutions who fell within the lower predicted grade category, again supporting previous evidence that reputation is a strong influence on those who apply to the most selective universities. Both groups of applicants to the most selective universities generally demonstrated a greater awareness of the different mission groups than those who has decided not to apply to the most selective institutions.

In summary, evidence from this research has shown that applicants to the most selective institutions are most likely to have participated in extra-curricular activities designed to familiarise young people with HE, most likely to have used decision-specific sources in their research, and are more familiar with terms that indicate the academic prestige of universities. This was even truer for top achieving applicants to the most selective institutions. The advanced level of preparation in top achievers applying to the most selective institutions' decision-making compared to their peers' might suggest one of two scenarios: (i) as a top achiever their HE decision was embedded from an early age either as a result of either their academic ability or the environment in which they were raised; (ii) as a top achiever they were at a more advanced stage of their decision-making, regardless of their social or academic background, they were more aware of the opportunities available to them.

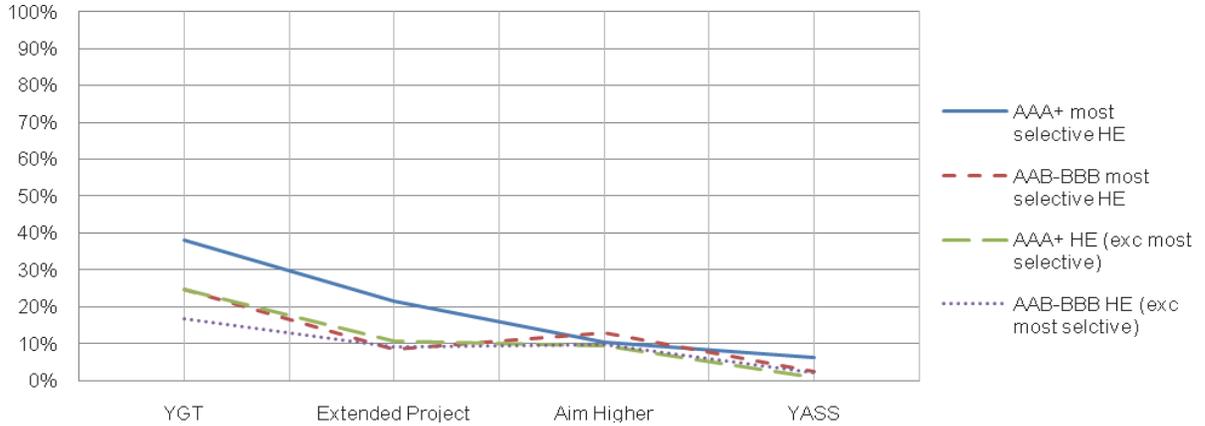


Figure 10: Percentage of participation in extra-curricular activities

	AAA+			AAB-BBB		
	Most selective HE	HE (exc most selective)	Total	Most selective HE	HE (exc most selective)	Total
University websites	98.58%	96.69%	98.66%	97.78%	98.33%	97.88%
University prospectus	97.76%	97.41%	97.80%	97.16%	98.05%	97.71%
Peers/friends	84.45%	78.37%	83.55%	81.91%	82.54%	83.35%
Parents/guardians/family	84.17%	81.67%	83.46%	81.08%	78.40%	80.22%
Staff knowledge	81.52%	78.57%	80.62%	75.00%	76.16%	76.78%
UCAS website	76.46%	89.02%	79.35%	86.88%	91.08%	89.43%
Other websites	63.77%	55.60%	62.58%	61.23%	49.48%	57.49%

Table 3: Percentage of applicants who used listed sources for preliminary research

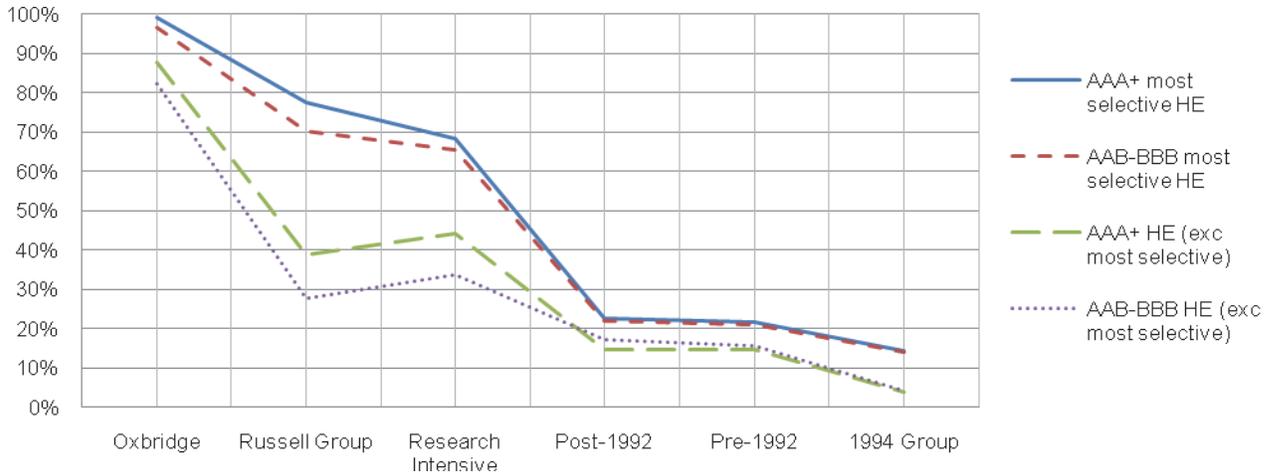


Figure 11: Percentage of knowledge of descriptors of HE

6.4 Summary of findings

- The factors influencing high achievers' decisions correlate more closely with the types of universities being applied to, rather than their predicted level of achievement or educational background.
- All high achievers expressed that the most influential factor in their HE decision was the course and course content; yet further investigation showed that this might be conceived differently among those who were applying to the most selective institutions and those who were not.
- High achievers applying to the most selective universities exhibited a tendency to base their decisions on social indications of prestige and academic excellence, and displayed a stronger sense of self-efficacy. Their decisions were strongly influenced by league tables, academic reputation, and the idea of challenging themselves. For them, the importance of course and course content was more closely related to the institution they would be studying at, rather than the practical application of their education following graduation.
- High achievers who chose not to apply to the most selective universities showed a greater concern for the practicalities of attending university, such as employment prospects upon graduation, cost of living and distance from home. The importance of course and course content for them was founded in the use of that qualification to enter the world of work.
- Students from independent schools were the most likely to receive advice and guidance on their decisions, whilst students from FE colleges were least likely to. The effects of receiving more advice and guidance remain unknown, because quantity does not imply quality. This is a significant area for future investigation.
- Across all centre types, AAA+ students to the most selective universities were the best informed (in terms of their knowledge about HE, the preparatory research they did, and their participation in extra-curricular activities) about higher education prior to making their application. These patterns were often closely followed by their peers who also applied to the most selective institutions. The advanced level of preparation in this group's decision-making might suggest one of two scenarios: (i) that their HE decision was embedded from an early age either as a result of either their academic ability or the environment in which they were raised; (ii) that at a more advanced stage of their decision-making, regardless of their social or academic background, they were more aware of the opportunities available to them as a high achiever. If either of these scenarios hold true then it follows that high achieving applicants to the most selective institutions are intrinsically at a more developed stage of decision-making.

7. Differences in the decision-making experiences of high achieving students

The process of interviewing was designed to provide further insight into the information obtained from survey data, as well as draw out the more subtle nuances and themes of individual decision-making. Interview data did not contradict the survey findings and provided support for the fundamental argument that differences in high achievers' choices are more closely connected to the type of institution they apply to rather than the centre type from which they progress or the level of achievement they are predicted to attain. In addition to this, the interviews also brought to light other factors that help to understand high achievers' decision-making. These are discussed in the following sections and detailed in case studies (Appendix 5).

7.1 Confidence and competition

For the purpose of this research, confidence was conceived as the individual's belief in their ability to perform to the level they were predicted and their belief in their ability to gain entrance to the most selective institutions. In order to gauge how confident applicants were (in themselves and in relation to one another) within-interview and cross-interview analysis was conducted. This enabled the researcher to gain an overall feeling for the applicants' attitudes towards their own ability in the context of their social and institutional environment, how these attitudes developed over time, and how they compared across different types of high achievers. Applicants' confidence also affected their attitude to competition, and in the context of applying to university, had an effect on how they perceived their chances of gaining entry to the most selective institutions.

The vast majority of high achieving applicants to the most selective institutions exhibited confidence in their academic ability¹⁰. In the single interview case where this was not observed, it was due to the individual being pushed into a decision that may not have suited them (Appendix 5, case study 1). This did not affect their initial decision-making, rather their final performance, placement and reflections on their experience of the admissions process. Therefore it is not productive to this research to discuss such a case at length, but it is necessary to recognise that such situations may occur.

Although there was consistency in the observed behaviour of applicants to the most selective institutions, there was a marked difference in the confidence levels and attitudes to competition among high achievers who chose not to apply to such

¹⁰ Of course this was manifested in different ways reflecting different personalities, with some applicants being modest about their abilities and others being more forthcoming about them.

institutions. On the one hand, there were those who were extremely confident in their ability and thrived on competition yet made a conscious decision not to apply to the most selective institutions, whilst on the other hand there were those who lacked self-confidence and this had influenced their choice.

INTERVIEWER: *Did you feel confident that you would exceed or achieve your predicted grades?*
 INTERVIEWEE: Yes
 INTERVIEWER: *Was there anyone that made you feel comfortable in that, or was it mainly yourself?*
 INTERVIEWEE: It was mainly myself, I'm fairly arrogant, I'm not going to lie! [...] Well I mean my subject teachers I suppose in giving me the grades made me feel confident.
 INTERVIEWER: *And did you feel under pressure in any way to achieve them or exceed them?*
 INTERVIEWEE: Only the competition that me and my friends had because we shared certain subjects like product design so we did compete in product design.
Participant #32, HE (exc most selective)

INTERVIEWEE: I'm stubborn and I knew if I'd, I could have perhaps got into Oxford or Cambridge to do maths and I'm sure if I'd have gone I would have worked hard and I could have probably done it but I wouldn't have enjoyed it. I like maths and really, really enjoyed it at A level but that's not something I want to spend the rest of my life doing and I wasn't prepared to do that just to keep people happy who weren't nice enough to support what I wanted to do.
Participant #4, HE (exc most selective)

INTERVIEWEE: I never put down [X; most selective university] because I never thought I would get the grades to get into a high university so on results day I got into university of [Y; other (excluding most selective)] which was my first choice, however I realised I am fairly good at this thing so I think I'll give it a shot looked on the clearing lists and rang up the only higher university I could find in there that had places I would want to go to was like [X] and one in London, so I rang them both and they both said they would take me on because of the grades I got. I chose [X].
 INTERVIEWER: *Did you ever when you made your initial choices did you ever have in mind that you might of wanted to go to a university like [X]?*
 INTERVIEWEE: I did but I just I didn't originally I had like [RG university] and [RG university] down and then I changed them because I was I didn't want to waste them as I didn't think I would get into places like that. I know I was predicted highly but in myself I was still really worried and still just thought I wouldn't do it so. There was pressure put on to apply to places like that but I didn't think in myself that I could do it which is why I didn't bother.
Participant #52, HE (exc most selective)

The extracts provide strong examples of the different types of high achiever who apply to universities not conventionally considered to be most selective, and suggest that there may be two types of decision-makers within the group.

From a wider perspective, the fact that one of these groups seems to exhibit the same traits as applicants to the most selective institutions may in turn reflect three broad types of decision-makers: determined-decided (those who are confident, competitive, assertive and are inclined to apply to the most selective institutions), determined-decisive (those who are confident, competitive, assertive and apply to HE based on course choice) and contingent (those who are less confident, less competitive, less assertive and apply to HE based on numerous factors). Being an embedded decision-maker implies a familiarity with HE, and a sense of progression to it being completely natural. If this is true, then it would follow that such applicants have strong family, social, and educational backgrounds conducive to HE. Being a contingent decision-maker implies that the progression to HE may not be natural considering family, social, and educational background, either because it is against the grain or because it is a new

phenomenon. By considering the role and influence of these backgrounds in the different applicants' decisions, the following section will explore whether or not this is the case.

7.2 Family and friends

Previously this study has tried to assess the impact of the applicant's external environment on their HE decision in terms of the support they received and their perception of external factors. Interviewing was able to capture more information about the applicant's background, and whether or not this was conducive to HE progression.

Applicants to the most selective institutions often had a background that had familiarised them with HE. This may have been from a combination of their home life, their centre, or their peer group but in at least one of their environments it was considered conventional to progress to the most selective HE. In this sense, applicants to the most selective institutions had observed first-hand the ability of others within their environment to progress to the most selective institutions.

INTERVIEWEE: I always thought the whole thing was the major point of it really, to go and have that independence because my parents both did that. They moved away when they were studying and that kind of thing. It was a surprise that all of my close friends were staying: not going at all, living at home and getting a job or just going to [most selective institution, local] or [other institution, local] and still living at home. That surprised me as I was the only one who moved away.

Participant #31, most selective HE

This was also true amongst applicants who chose not to apply to the most selective institutions because the course they wanted to study was not offered there.

INTERVIEWER: *And what did your 3 closest friends from your college go on to do after this?*

INTERVIEWEE: Oxbridge, all of them.

INTERVIEWER: *So really surrounded by very university-focused people?*

INTERVIEWEE: Yeh. One of my friends started looking at universities in year 10.

INTERVIEWER: *Really? And was that encouraged from that early to be thinking..?*

INTERVIEWEE: It was encouraged by his parents, he dragged me along to one of the open days well one of the university fairs they have in London and I went round there.

Participant #32, HE (exc most selective)

INTERVIEWER: *Thinking of your three closest friends from home, can you tell me what they are all doing now?*

INTERVIEWEE: One's at [most selective HE] something along the lines of aeronautical engineering, ones at [other HE] and he's doing music management but he wasn't from my school and another is at [most selective HE] doing English.

Participant #4, HE (exc most selective)

Amongst applicants who applied to institutions that were not the most selective and who exhibited less confidence, home, social and educational background usually entailed some connection with HE but not necessarily the most selective HE. For them, the emphasis instilled in them was on attending HE in the most general sense rather than specifically focusing on the most selective HE. This was generally experienced within their school environment, where pressure was placed on high achievers to progress to HE.

INTERVIEWEE: Well my friend that went to [other HE (exc most selective), local] to do psychology until she got her, she was adamant that she wasn't going, she didn't want to go, she was like really very intelligent but in the last year she just didn't want to go to uni so she just she didn't really try and she was like pressured a lot and she didn't want to go and then when results came out she decided that she would go so it was like in the end most of my friends did end up going to university yeah.

Participant #52, HE (exc most selective)

INTERVIEWEE: Three of my friends are at uni at the moment

INTERVIEWER: *Which unis are they at if you don't mind me asking?*

INTERVIEWEE: One is at [X university; HE (exc most selective)] and the other ones at [Y university; HE (exc most selective)], one took a gap year and she's going to [Z university; HE (exc most selective)] this year, the other one she got pregnant at second year so she didn't go to uni.

INTERVIEWER: *But the majority did go to uni like you did?*

INTERVIEWEE: The majority of them went to [local] universities

Participant #66, HE (exc most selective)

This confirms that embedded applicants (who chose to apply to the most selective institutions) and embedded-contingent applicants (who, based on course choice, did not apply to the most selective institutions) share similar traits. Notably, their self-confidence seems to be more developed than their peers, reflecting the importance of modelling (seeing others from your environment succeed) on self-efficacy. More generally, these findings support the notion that different decision-makers approach their HE decision from different perspectives, and that external environment has an important and significant effect on their interpretation of the HE decision (ie whether it is an embedded or contingent decision). As the individual's natural reaction is to internalise their decision and rationalise it during the decision-making process, they may not be conscious the effect the external environment has on their choices. Having made their decision, examining how they review their decisions and the context in which they were made provides useful insight into how the context of the individual may have had a positive or negative affect on their final HE choice.

7.3 Reflections on decision-making

On reflection, high achieving students to the most selective institutions did not show any significant desire to change or improve the decisions they had made¹¹. This was similar to the determined-decisive decision-makers, who also expressed no regret at the HE decisions they had made, believing them to be fully informed and rational.

INTERVIEWER: *What advice would you give to someone from your school, specifically from your school, who wants to progress onto higher education?*

INTERVIEWEE: To really get advice from the teachers who are willing to give it and give it a professional sense and just don't feel pressured into doing things because it's your life and your next three years of doing something so whether it's a certain course you want to do or a certain place you want to go, as long as you've got enough information to make an educated decision on it, I think that's what it should be, it should be your decision because it's you who's got to live with it and not them.

Participant #4, HE (exc most selective)

¹¹ Amongst the top high achievers, however, some expressed a desire to have pushed themselves further and to have applied to the most competitive institutions in the country.

INTERVIEWEE: What more would I have liked to have known before making your application to university? I honestly can't think of anything I'd like to have known before making my application. I can think of some things I'd love to have known before I moved into halls but they didn't affect my application!

Participant #32, HE (exc most selective)

This was not the case among high achievers applying to other institutions, however, especially among those who exhibited the least confidence. This was most transparent when asked what advice they would give to future applicants. By emphasising the importance of aiming higher, these applicants revealed an underlying desire to have had the confidence to aim higher.

INTERVIEWEE: Well I'd tell people this: whatever grades you think you're likely to get definitely put down one university you probably don't think you'd get into because you may surprise yourself in your exams, do a lot of your own research and make the decisions you want to do.

Participant #52, HE (exc most selective)

INTERVIEWER: *Is there anything that would have made you apply to a different university?*

INTERVIEWEE: I suppose, I would have liked to have gone to a higher reputation because I did apply to [most selective institution] but that was so far out that I just changed my mind completely so if there was somewhere that was a bit closer to home that did it, [...] I would have liked to have gone there but they didn't do my course. I suppose if I had more of a choice with choosing my university in terms of the course because not a lot of places did it really I found.

Participant #2, HE (exc most selective)

Regrettably, these students did not always stand by the initial HE decisions they had made, instead expressing a desire to have known more or believed in themselves more. Although the research found these cases to be few and far between, this is an incredibly important area for future research and has important implications for future policy interventions.

7.4 Classifying decision-makers

From analysis of the interviews it was possible to identify three different groupings of individuals, each of these groups reflecting a different mindset with which a HE decision was approached. These groups were:

1. Determined-decided ("I'll get the best I can"): High achieving applicant to the most selective institutions. Decision-makers who are confident, competitive, assertive and are inclined, by virtue of the home, social and institutional environments, to apply only to the most selective institutions
2. Determined-decisive ("I'll get the best for me"): High achieving applicant to HE (excluding most selective). Decision-makers who are confident, competitive, assertive and make HE decisions based on course choice. Decisions tend to be informed, rational and highly independent, often going against conventions in their social and institutional context.

3. Contingent (“I’ll get the best I think I can”): High achieving applicant to other institutions. Decision-makers who are less confident, less competitive, less assertive and whose HE decision is based on numerous factors. Decisions are often subject to a lack of self-efficacy, which can be attributed to a home, social or institutional environment that does not provide a model for attainment at the level of selective HE. Students who made a decision with a contingent mindset often tended to regret their HE decision on reflection, wishing instead that they had aimed higher rather than constraining their opportunities based on their perceived abilities and capabilities.

The three mindsets present in high achievers’ decision-making did not appear to be a factor of school type (see Table 4). Although proportionally more determined-decided decision-makers progressed from independent school and proportionally more contingent decision-maker progressed from FE colleges, the fact these mindsets were dispersed across school types demonstrates that the HE decision is an individual one, and not necessarily tied to educational background.

Decision-makers by centre type	Contingent	Determined-decided	Determined-decisive	Grand Total
Further Education	5	3	4	12
Grammar School	1	8	4	13
Independent School		9	1	10
Other		1		1
Sixth Form College	5	3	10	18
State exc Grammar	4	12	7	23
Grand Total	15	36	26	77

Table 4: Decision-makers by centre type

Linking interviewee data back to individual survey responses captured a fuller picture of each type of decision-maker (see Figure 12). Determined-decided decision-makers tended to be the least influenced by external factors. This tied in with the logic of them being confident and decided – following a natural progression into HE that does not need to be affirmed by internal or external factors.

As expected, the analysis showed that determined-decisive decision-makers are extremely focused on course content and employment prospects following graduation. In terms of support, they were influenced more by their parents than any other type of decision-maker, but also felt the least influence from their teachers and school staff. Such decision-makers tend to go against the grain, making personal and informed decisions that suit them. It therefore follows that the support they receive may come from outside a (potentially) academically driven school environment where the

expectation that their high grades mean they should apply for selective HE is not so prominent.

Contingent decision-makers are influenced by the cost of living, distance from home, accommodation and fitting in. These external influences shape their HE paths and lead them towards a certain outcome. In terms of policy it is this group of decision-makers that requires the most immediate attention. Not only are their decisions restricted by the practicalities of attending HE, but the evidence shows that their decisions can be self-limiting. These students are currently unable to meet their full potential, and it is only when it is too late that they realise this.

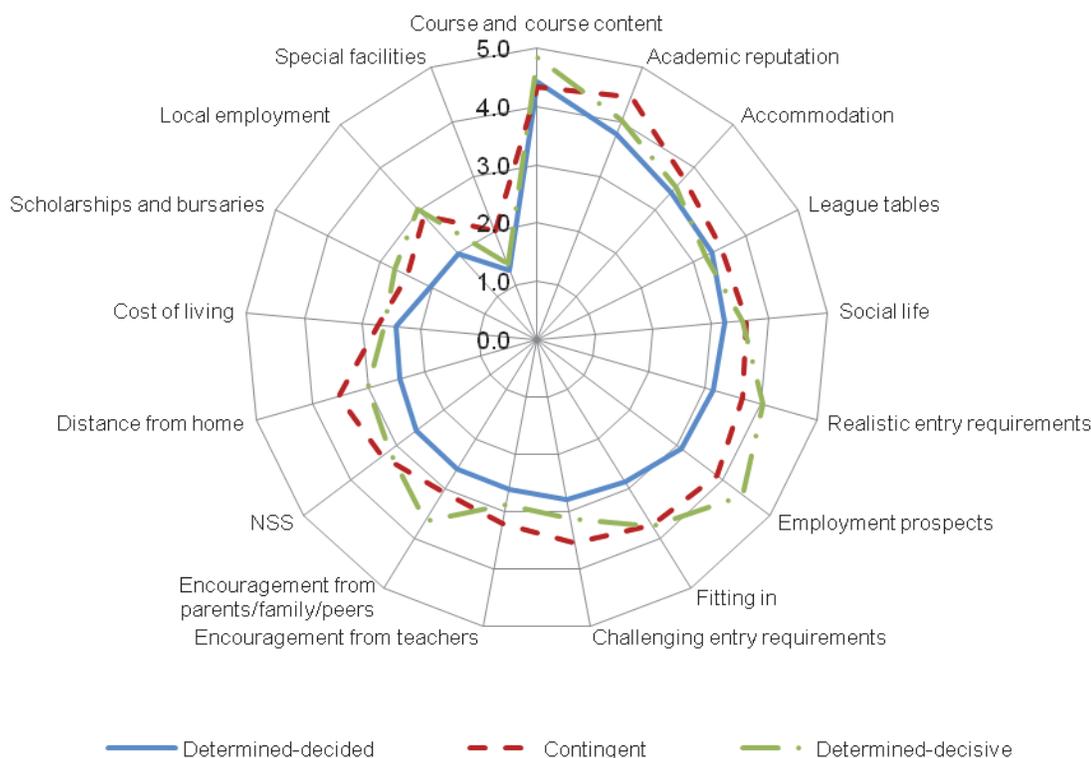


Figure 12: Factors that influence the decision of applicants to HE

7.5 Summary of findings

- Amongst applicants to the most selective institutions consistent traits were observable: confidence, competitiveness, and assertiveness. These high achievers often had not thought of alternative post-16 routes, implying that their HE decisions were already at an advanced stage when it came to application (due to institutional, academic, social or family background HE was seen as a conventional progression route for them and they were able to focus attention on the type of HE they would apply to). In line with this, during application they often sought indicators from their environment to reinforce and reaffirm their decisions rather than allowing external factors to influence their choices. This implied that

their HE decision was embedded and considerable external influence would have been required to change it.

- Broadly speaking, amongst applicants who chose not to apply to the most selective institutions there were two types of decision-makers: those who behaved in a similar way to applicants to the most selective institutions but were particularly influenced by course choice; and those whose decisions were subject to a lack of self-efficacy.
 - High achieving applicants who chose not to apply to the most selective institutions because their course was not offered there tended to be equally as confident, competitive and assertive as their peers who did. Their decisions tended to be embedded but showed a unique focus on the value of a specific HE qualification rather than a HE qualification more generally. Their decision-making tended to be highly independent, often going against conventions in their social and institutional context. In this sense their decision not to apply to selective institutions was fully informed and rational, and like their peers it would have taken considerable external influence to change their decisions. Although these students were not applying to the most selective institutions in the conventional sense, it has been shown that they were applying to the best institutions for them.
 - For high achieving applicants who did not apply to the most selective institutions, decision-making was contingent on numerous factors, including career options and the practicality of HE. These observations supported the survey findings, showing that these contingent high achievers have a far greater quantity of considerations in their decision-making. Most startling was the degree to which a lack of self-efficacy impacted upon their decisions and prohibited them aiming as high as they could. Regrettably, these students did not always stand by the initial HE decisions they had made, instead expressing a desire to have known more or believed in themselves more. Although the research found these cases to be few and far between, this is an incredibly important area for future research and has important implications for future policy interventions.
- These observations enhanced, supported and were supported by the survey results¹².

¹² For example, according to the survey, high achievers to the most selective institutions were most strongly influenced by academic reputation, league tables, and challenging entry requirements, and were most prepared for HE. The interviews showed that they were also confident in their ability, were familiar with HE, and, on reflection, were satisfied with their HE decision and the process they went through to make it. Applying this information to the model, it suggests that many of the factors they experienced during their decision-making were interpreted as drivers or neutral rather than contingent because these students were informed enough to know what they could expect from HE and astute enough to know exactly what they wanted from it. Even if contingencies did exist they were not outweighed by the driving forces. Both the survey and interview data suggested that this experience was not the same for applicants to HE that was not the most selective.

8 Conclusions

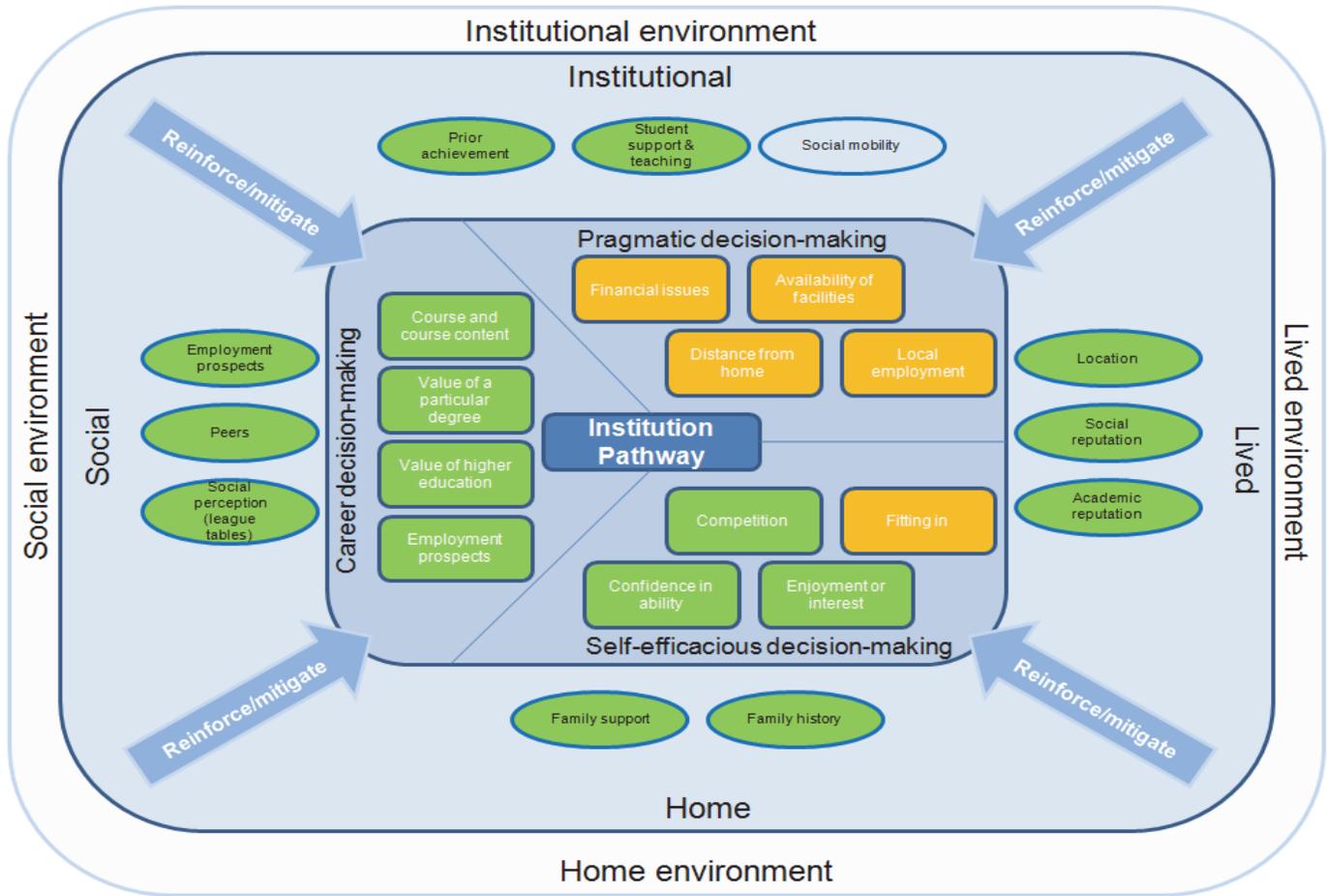
Survey data confirmed previous assumptions that the majority of applicants to the most selective institutions progressed from independent schools. However, deeper analysis of the survey results revealed that differences in the influences on students during the application process were more closely associated with the type of institution they were applying to rather than the type of centre they were progressing from. This showed that disparities in application to the most selective institutions were partly due to differences in preferences and partly due to elements of the individual's environment.

Interviewing provided a means of highlighting the subtle nuances and complexities in individual decision-making. Analysis on this micro-level highlighted the importance of factors such as self-efficacy, career orientation and personal background in decision-making and how these were experienced by the individual. By challenging preconceptions that certain centres produce certain types of applicants who are more or less likely to follow certain patterns, this research has provided a unique insight into the decision-making process of high achieving applicants.

Using the categories 'most selective HE' and 'HE (exc most selective)' as a basis for analysis, three distinct types of HE decision-maker have been identified:

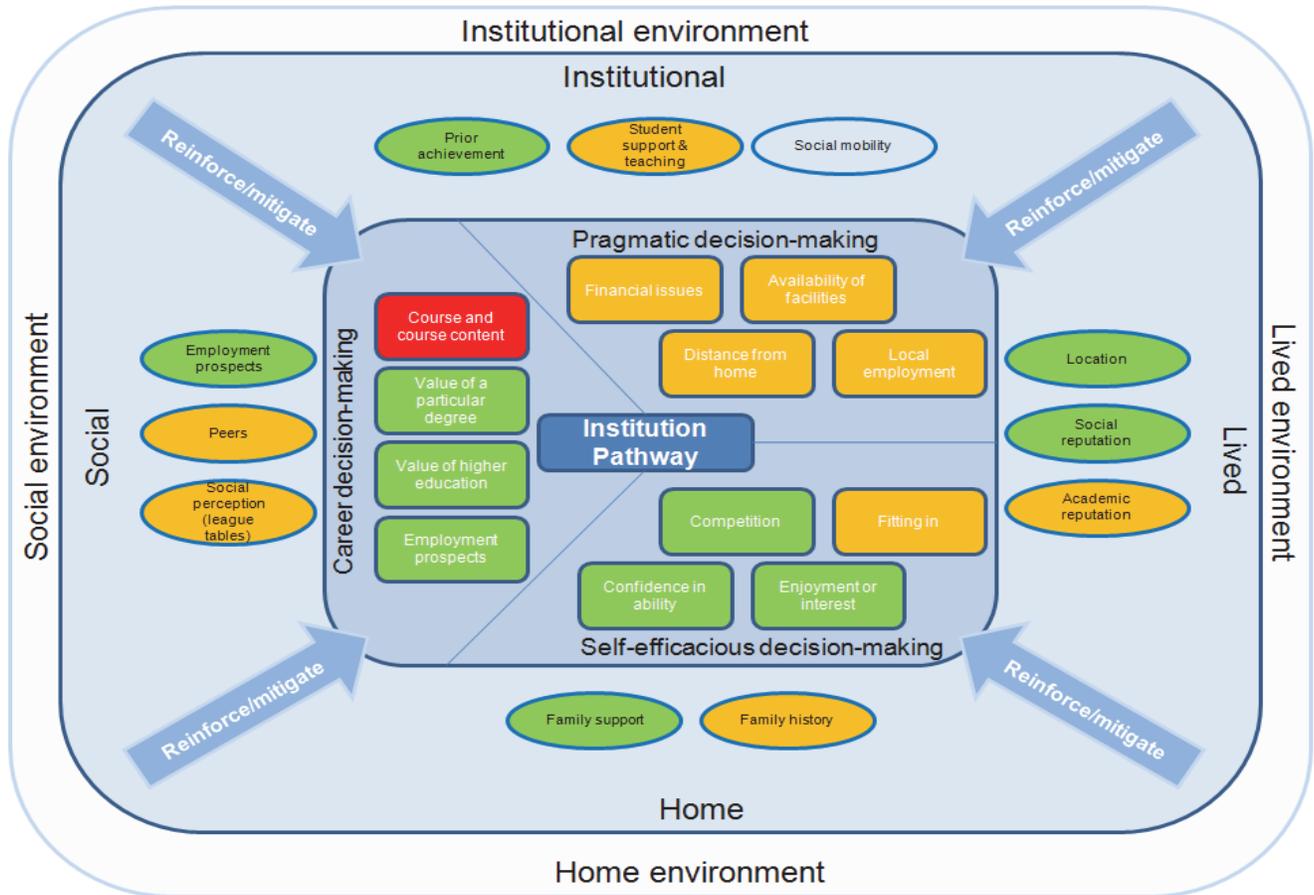
1. **Determined-decided:** High achieving applicant to the most selective institutions. Decision-makers who are confident, competitive, assertive and are inclined (by virtue of the home, social and institutional environments) to apply to the most selective institutions
2. **Determined-decisive:** High achieving applicant to other institutions. Decision-makers who are confident, competitive, assertive and make HE decisions based on course choice. Decisions tend to be informed, rational and highly independent, often going against conventions in their social and institutional context
3. **Contingent:** High achieving applicant to other institutions. Decision-makers who are less confident, less competitive, less assertive and apply to HE based on numerous factors. Decisions are subject to a lack of self-efficacy, often attributed to a home, social or institutional environment that does not provide a model for attainment at the level of selective HE.

These three types of decision-makers follow different decision paths, and these can be conceptualised on a model of educational decision-making demonstrating the stark differences between them, especially with regard to self-efficacy. The existence of these mindsets has significant implications for support offerings. In particular, the needs of contingent decision-makers need to be addressed to remove the constraints (both from internal and external sources) on their decision-making and ensure that they have the same opportunities and decision-making skills as their peers.



Determined-decided decision-maker: High achieving applicant to the most selective institutions

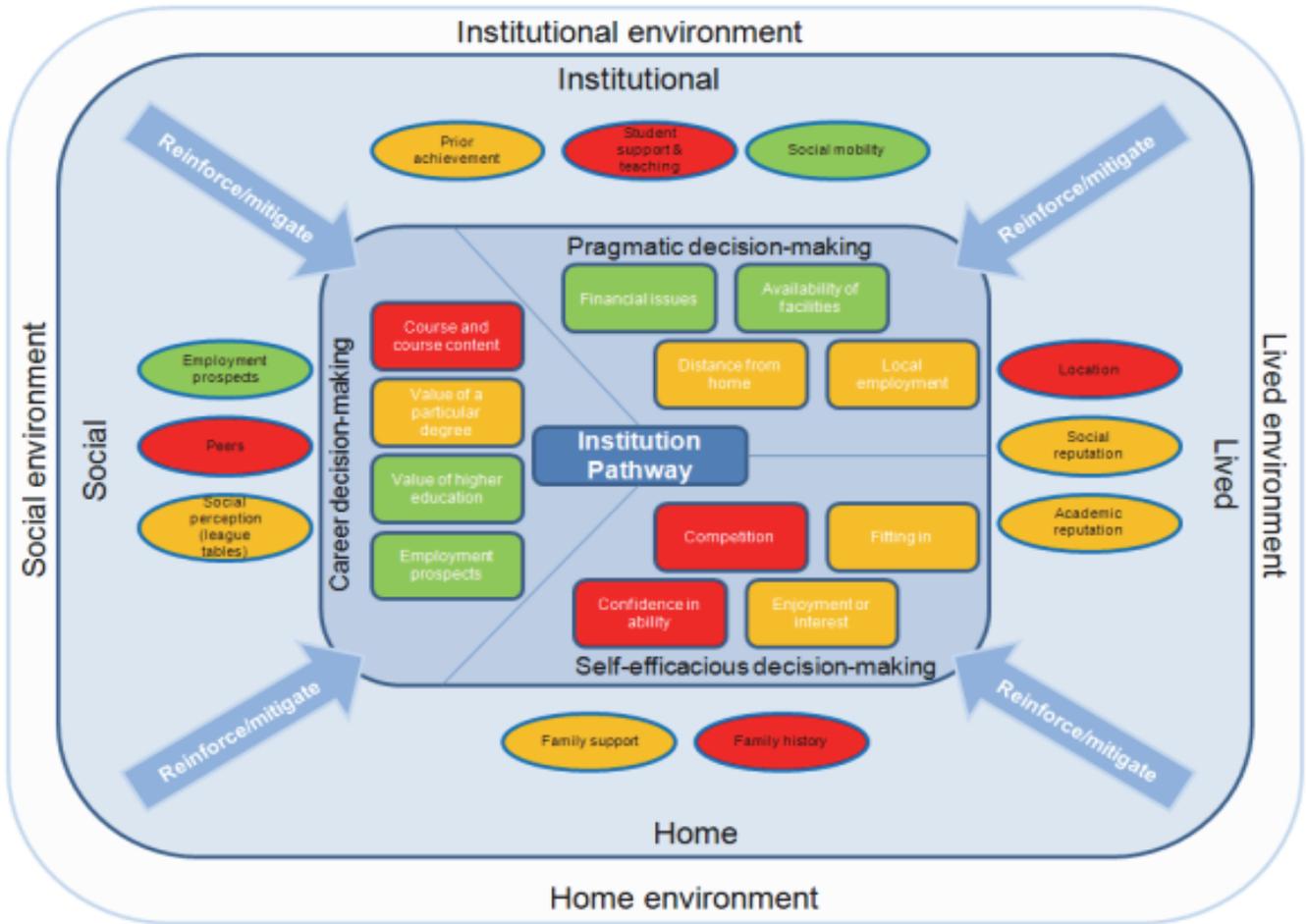
KEY:	
Presence/effect unknown	 
Present, a driver to decide to apply to selective HE	 
Present, a contingent factor in deciding to apply to selective HE	 
Present, effect on decision to apply to selective HE neutral	 



Determined-decisive decision-maker: High achieving applicant to other institutions

KEY:

Presence/effect unknown		
Present, a driver to decide to apply to selective HE		
Present, a contingent factor in deciding to apply to selective HE		
Present, effect on decision to apply to selective HE neutral		



Contingent decision-maker: High achieving applicant to other institutions

KEY:

Presence/effect unknown		
Present, a driver to decide to apply to selective HE		
Present, a contingent factor in deciding to apply to selective HE		
Present, effect on decision to apply to selective HE neutral		

Figure 13: Three types of educational decision-making amongst high achieving students

8.1 Next steps

The research has brought to light a multitude of opportunities for further research. Findings from the interviews are only based on a tiny proportion of the high achieving population and it is important to establish whether they hold true on a larger scale. Informed by the interview findings, more detailed analysis of the decision-making process should be conducted in the following areas.

- Strongly connected to the idea of determined-decided, determined-decisive or contingent decision-making, and therefore warranting further investigation, is the impact of social class on decision-making. Indeed, this could provide a useful substitute to the more commonly used centre type categorisation and rather than merely implying social class as a factor could explore more explicitly its influence (because centre type does not always truly represent the social class of the student (some students may be at independent schools on scholarships, for example)). In a similar vein, research should also examine the impact of ethnicity and gender on application patterns. This could take the form of a multivariate analysis of these factors on the application patterns of high achievers.
- Further research is required into evaluating the effectiveness and impact of interventions on decision-making. An interesting finding has been that all high achievers received encouragement to apply to HE, regardless of whether this was necessarily the right post-16 option for them¹³. Although it was not within the remit of this study to consider non-HE participation in its widest sense this poses a fascinating area for further research, because particularly among high achieving students little information seems to have been provided on alternative pathways (such as apprenticeships and vocational study).
- The interviews showed that some decision-makers were not happy with their final choices. This has implications for retention and progression post-HE and a longitudinal study using retrospective analysis of decisions and objective evaluation of interventions would help to investigate the temporal nature of decision-making and the implications of this for university choice. In particular, further investigation should be carried out on the categorisations of applicants to the most selective HE and those to HE (exc most selective) and provide deeper understanding of if, and how these vary within and across centre types and applicant types.
- Another interesting area of research would be to consider whether the relative success of centre types sending students to the most selective institutions is

¹³ One account of this read as follows: “there was a person who wanted to go into the army and in the middle of assembly this old teacher who organised university applications said you can do it yourself, I’m not going to help you. A prime example of no, they weren’t really very helpful. Increasingly I think they have stuff available, now they’ve got new staff members in but particularly this old member of staff who dominates all the applications is very much university centred” (participant #11; most selective HE). Unfortunately this was not an isolated incident and just an example of the type of situation that many high achievers faced.

attributable to endogenous or exogenous growth factors (is the success of certain centre types determined by internal school-based investments or external (government) investment in the HE sector). This would involve cross-analysis of historic data on changes in HE participation from different centres and government initiatives and would help to establish whether centre type is or is not a crucial factor in the application patterns of high achievers.

Bibliography

BALL, S., VINCENT, C. (1998), "I heard it on the grapevine: Hot knowledge and school choice", *British Journal of the Sociology of Education*, Vol. 9, No. 3, pp.377-400

BLOOMER, M., HODKINSON, P. (1997), *Moving into FE: the voice of the learner*, London: Further Education Development Agency

CRAWFORD, C. et al (2011), "Social Mobility: A literature review", *Department of Business, Innovation and Skills*, March 2011

DEPARTMENT FOR BUSINESS, INNOVATION & SKILLS, SUTTON TRUST (2009), "Applications, Offers and Admissions to Research-Led Universities", *BIS Research Paper*, No. 5, August 2009

DEPARTMENT OF EDUCATION, EMPLOYMENT AND WORKPLACE RELATIONS (2009), "Year 12 student choices: a survey on factors influencing Year 12 decision-making on post-school destination, choice of university and preferred subject", *Australian Government*, June 2009

HM GOVERNMENT (2011), "Opening Doors, Breaking Barriers: A Strategy for Social Mobility", *HM Government Paper*, April 2011

KEYS, W., MASON, K., KENDALL, L. (2002), "Supporting students applying to Higher Education", *National Foundation for Educational Research*

LABOV, W. (1972), *Sociolinguistic Patterns*, Oxford: Blackwell

PATON, K. (2007a), "Conceptualising 'Choice': A review of the theoretical literature", *School of Education, University of Southampton*, Non-participation in HE project series, Working Paper No. 5

PATON, K. (2007b), "Models of educational decision-making", *School of Education, University of Southampton*, Non-participation in HE project series, Working Paper No. 6

SUTTON TRUST (2004), "The Missing 3000: State school students under-represented at leading universities", *The Sutton Trust*

SUTTON TRUST (2008), "University Admissions by Individual Schools", *The Sutton Trust*

Appendix 1: Terms of reference

1. Definitions

- a. High achiever:** an applicant who was predicted at least three grade Bs in their A levels. Categories of the term high achiever are:
- i. **BBB+ applicant:** As above. A high achiever, an applicant who was predicted three Bs or above.
 - ii. **AAA+ applicant:** A subset of the BBB+ group. A top achiever, an applicant who was predicted three As or above in their A levels
 - iii. **AAB-BBB applicant:** A subset of the BBB+ group. A high achiever who was predicted at least three Bs at A level but no higher than two As and a B.
- b. Academic/non-academic applicants**
- i. **Academic applicant:** an applicant who has been predicted at least two grade Bs in academic A level subjects
 - ii. **Non-academic applicant:** an applicant who has been predicted at least three grade Bs in non-academic subject
- c. October/January applicants**
- i. **October:** an applicant who sent their application form to UCAS by the 15th October 2009 (the applicant was considered in the early application deadline)
 - ii. **January:** an applicant who sent their application form to UCAS by 15th January 2010 (i.e. the applicant was considered in the mainstream application deadline)
- d. Most selective HE/HE (excluding most selective)/combination applicants**
- i. **Most selective HE applicant:** An applicant who applied to at least one or more Russell or 1994 Group of universities and no Other universities (ie no institutions that were not classified within the Russell or 1994 Group of universities)
 - ii. **HE (exc most selective) applicant:** An applicant who applied to a maximum of one Russell or 1994 group university and a minimum of one Other university (ie one institution that is not classified within the Russell or 1994 Group of universities)
 - iii. **Combination applicant:** An applicant who applied to a combination of at least two Russell or 1994 Group universities and at least one Other institution (ie one institution that is not classified within either the Russell or 1994 Group of universities)
- e. Intervention:** a factor under investigation which impacts, or is believed to impact, the application pattern of high achieving students.

2. Variables

a. Applicant type: The attributes of a high achieving A level applicant regarding at least one or a combination of the following: the grades they were predicted (AAA+/AAB-BBB/BBB+) the subjects they studied (academic/non-academic), the period in which they applied (October/January) and the HEI to which they applied (most selective HE or HE (excluding most selective)).

b. Centre type: The centre type from which the applicant progressed, this being one of the following: further education, grammar school, independent school, other, sixth form college, or state school (excluding grammar).

c. HEI type: The HEI type to which the applicant applied, falling into one of three groups: most selective, HE (excluding most selective), and combination.

HEI type and centre type

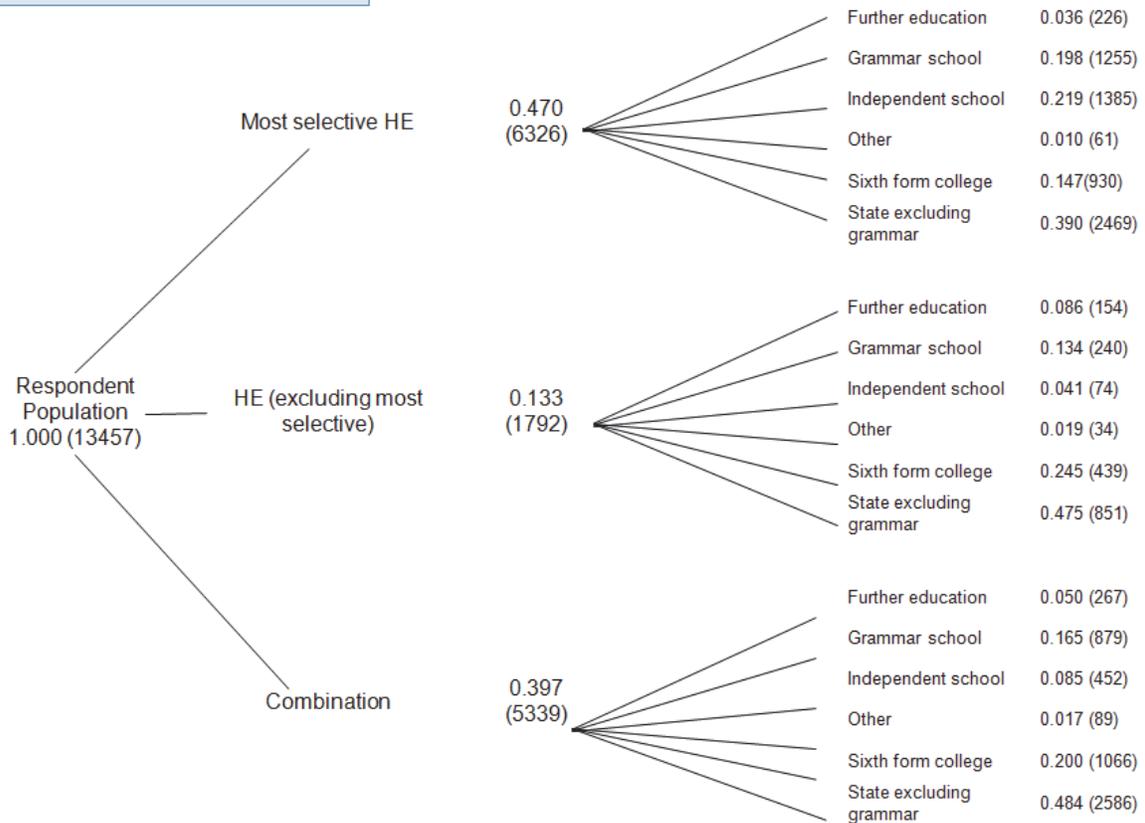


Figure 1: Demonstration of the survey sample break-down by two variables: HEI type and centre type

Appendix 2: High achievers survey

Investigating applicants' decision-making processes

We would like to invite all applicants who have been predicted at least 5 B grades (or above) at A level to complete this survey about decision-making processes during application. The survey contains 22 questions and should take no longer than 10-15 minutes to complete.

Please complete as much as you can. Your answers will help schools and colleges support applicants while they are making choices about higher education.

All results will be treated as strictly confidential. Your response to the questionnaire will not affect your application. We do however ask for your UCAS Personal ID in order to validate your applicant status.

The survey will close at 5pm on Friday 1 October 2016.

We will also be finding representatives to take part in follow up interviews throughout the 2016-10 application cycle. Please indicate on the survey whether you would be happy and willing to participate in an interview.

Questions marked with an asterisk (*) require an answer.

If you have any queries or would like further information, about this research please do not hesitate to contact us:

Research Team
research@ucas.ac.uk
 01242 544513

If you would like to discuss your application in more detail please contact:

UCAS Customer Services
 Customer Service Unit
 UCAS
 PO Box 26
 Cheltenham
 GL50 3LZ

Email: enquiries@ucas.ac.uk
 Telephone: 0871 465 0465
 Open Monday to Friday, 08:30-18:00 (UK time). UK BT landline calls will cost no more than 9p per minute. Calls from mobiles and other networks may vary.

***1. To launch the survey please write your UCAS Personal ID here**

Information about you and your studies

2. Information about you

Your name

The name of your school or college

3. How many GCSE passes did you receive?

Other (please specify)

4. Which subjects did you study at GCSE?

<input type="checkbox"/> English	<input type="checkbox"/> French	<input type="checkbox"/> Geography
<input type="checkbox"/> English Literature	<input type="checkbox"/> Spanish	<input type="checkbox"/> Religious Studies
<input type="checkbox"/> Mathematics	<input type="checkbox"/> German	<input type="checkbox"/> Art and Design
<input type="checkbox"/> Science	<input type="checkbox"/> Italian	<input type="checkbox"/> Drama
<input type="checkbox"/> Biology	<input type="checkbox"/> Welsh	<input type="checkbox"/> Music
<input type="checkbox"/> Chemistry	<input type="checkbox"/> Latin	<input type="checkbox"/> Physical Education
<input type="checkbox"/> Physics	<input type="checkbox"/> Classical Studies	
<input type="checkbox"/> Information and Communication Technology (ICT)	<input type="checkbox"/> History	

Other (please specify)

5. Which subjects did you study/are you studying at AS level?

<input type="checkbox"/> English	<input type="checkbox"/> French	<input type="checkbox"/> Religious Studies
<input type="checkbox"/> English Literature	<input type="checkbox"/> Spanish	<input type="checkbox"/> Art and Design
<input type="checkbox"/> Mathematics	<input type="checkbox"/> German	<input type="checkbox"/> Drama
<input type="checkbox"/> Further Mathematics	<input type="checkbox"/> Italian	<input type="checkbox"/> Music
<input type="checkbox"/> Science	<input type="checkbox"/> Welsh	<input type="checkbox"/> Physical Education
<input type="checkbox"/> Biology	<input type="checkbox"/> Latin	<input type="checkbox"/> General Studies
<input type="checkbox"/> Chemistry	<input type="checkbox"/> Classical Studies	<input type="checkbox"/> Business Studies
<input type="checkbox"/> Physics	<input type="checkbox"/> History	<input type="checkbox"/> Citizenship Studies
<input type="checkbox"/> Information and Communication Technology (ICT)	<input type="checkbox"/> Geography	

Other (please specify)

6. Which subjects are you studying at A level?

<input type="checkbox"/> English	<input type="checkbox"/> French	<input type="checkbox"/> Religious Studies
<input type="checkbox"/> English Literature	<input type="checkbox"/> Spanish	<input type="checkbox"/> Art and Design
<input type="checkbox"/> Mathematics	<input type="checkbox"/> German	<input type="checkbox"/> Drama
<input type="checkbox"/> Further Mathematics	<input type="checkbox"/> Italian	<input type="checkbox"/> Music
<input type="checkbox"/> Science	<input type="checkbox"/> Welsh	<input type="checkbox"/> Physical Education
<input type="checkbox"/> Biology	<input type="checkbox"/> Latin	<input type="checkbox"/> General Studies
<input type="checkbox"/> Chemistry	<input type="checkbox"/> Classical Studies	<input type="checkbox"/> Business Studies
<input type="checkbox"/> Physics	<input type="checkbox"/> History	<input type="checkbox"/> Citizenship Studies
<input type="checkbox"/> Information and Communication Technology (ICT)	<input type="checkbox"/> Geography	

Other (please specify)

7. Please give details of any other courses/qualifications you are studying/working towards

8. Are you involved in extra-curricular schemes, such as the Young, Gifted & Talented programme, or the Open University's Young Applicants in Schools and Colleges Scheme (YASS)?

Young, Gifted & Talented programme	Yes <input type="radio"/>	No <input type="radio"/>
Open University's YASS	<input type="radio"/>	<input type="radio"/>
Aimhigher	<input type="radio"/>	<input type="radio"/>
Extended Project	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>

9. If you wish to make additional comments about you and your studies please write them here

Information about your application

10. What sources of information did you use for your preliminary research into higher education?

	Yes	No
University/college prospectuses	<input type="radio"/>	<input type="radio"/>
University/college websites	<input type="radio"/>	<input type="radio"/>
UCAS website (Course Search and Entry Profiles)	<input type="radio"/>	<input type="radio"/>
Other websites (such as articles, brochures, the student room, whatnot, etc)	<input type="radio"/>	<input type="radio"/>
School/college staff knowledge	<input type="radio"/>	<input type="radio"/>
Talking to parents/guardians/family	<input type="radio"/>	<input type="radio"/>
Talking to penfriends	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>

11. Do you have a preferred choice of institution?

Yes No

Could you tell us why you would prefer to attend that institution?

12. Do you have a preferred choice of course?

Yes No

Could you tell us why you would prefer to take that course?

13. Please rate the importance of these factors in your decisions regarding institution and course on a scale of 1 to 5

(1 = not very important and 5 = very important)

	1	2	3	4	5
Course and course content	<input type="radio"/>				
Academic reputation of the university/college	<input type="radio"/>				
Social life of the institution/university/college	<input type="radio"/>				
Entry requirements were realistic	<input type="radio"/>				
Entry requirements were challenging	<input type="radio"/>				
Availability of scholarships or bursaries	<input type="radio"/>				
Employment prospects on completion of the course	<input type="radio"/>				
Availability or standard of university/college accommodation	<input type="radio"/>				
Availability of special facilities specific to needs (e.g. childcare)	<input type="radio"/>				
Cost of living in the area	<input type="radio"/>				
Availability of local employment whilst studying	<input type="radio"/>				
Distance from home	<input type="radio"/>				
Feeling like you will fit in	<input type="radio"/>				
League table results	<input type="radio"/>				
National Student Survey results	<input type="radio"/>				
Encouragement from school/college teachers	<input type="radio"/>				
Encouragement from parents/guardians/family	<input type="radio"/>				
Other	<input type="radio"/>				

If 'other' please specify

14. Have you heard of the following terms used as descriptors of a type of university?

	Yes	No
Russell Group	<input type="radio"/>	<input type="radio"/>
Post-1992	<input type="radio"/>	<input type="radio"/>
Pre-1992	<input type="radio"/>	<input type="radio"/>
Research-intensive	<input type="radio"/>	<input type="radio"/>
1994 Group	<input type="radio"/>	<input type="radio"/>
Oxbridge	<input type="radio"/>	<input type="radio"/>

15. If you wish to make additional comments about your application please write them here

Information about advice and guidance

16. Did you receive advice and guidance from staff at your school or college regarding your choice of course, institution and application?

	Yes	No
Head of sixth form	<input type="radio"/>	<input type="radio"/>
Personal tutor	<input type="radio"/>	<input type="radio"/>
Careers teacher	<input type="radio"/>	<input type="radio"/>
Other member of staff	<input type="radio"/>	<input type="radio"/>

If 'other' please specify _____

17. Did you receive advice and guidance from anyone else regarding your choice of course, institution and application?

	Yes	No
Parents/guardians/family	<input type="radio"/>	<input type="radio"/>
Connections staff	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>

If 'other' please specify _____

**18. On a scale of 1 to 5 how helpful was the advice and guidance you received?
(1 = not very helpful and 5 = very helpful)**

	1	2	3	4	5	N/A
Head of sixth form's advice and guidance	<input type="radio"/>					
Personal tutor's advice and guidance	<input type="radio"/>					
Careers teacher's advice and guidance	<input type="radio"/>					
Parents/guardians/family's advice and guidance	<input type="radio"/>					
Connections staff's advice and guidance	<input type="radio"/>					
Other person's advice and guidance	<input type="radio"/>					

If 'other' please specify _____

19. Please tell us what was helpful about the advice and guidance you received

20. Please tell us what was not helpful about the advice and guidance you received

21. If you wish to make additional comments about advice and guidance please write them here

Concluding questions

22. We would like to interview a number of applicants to gain a better understanding of the application process

Would you be willing to be contacted again?
Yes No

If 'yes', please write your email address or mobile phone number so we can contact you:

Appendix 3: The sample compared to the A level applicant population and the high achieving A level applicant population

Centre type	A level applicant population	%	High achieving A level applicant population	%	Survey population	%
Further education	18,098	6.67%	5,868	4.72%	647	4.81%
Grammar school	30,208	11.14%	20,029	16.10%	2,374	17.64%
Independent school	37,717	13.91%	24,887	20.00%	1,911	14.20%
Sixth form college	51,640	19.04%	20,633	16.58%	2,435	18.09%
State school	111,002	40.93%	46,241	37.16%	5,906	43.89%
Other	22,557	8.32%	6,770	5.44%	184	1.37%
Total	271,222	100.00%	124,428	100.00%	13,457	100.00%

Table 1: Representation of centre type attendance within the sample compared to the high achieving A level applicant population (predicted BBB+) and the A level applicant population (applicants taking at least 3 subjects at A level)

HEI type	A level applicant population	%	High achieving applicant population	%	Survey population	%
Top HE	88,429	32.60%	68,346	54.93%	6,326	47.01%
Not top HE	114,676	42.28%	19,889	15.98%	1,792	13.32%
Combination	64,488	23.78%	35,575	28.59%	5,339	39.67%
Remaining applicants (made all choices to non aligned institutions)	3,629	1.34%	618	0.50%	-	0.00%
Total	271,222	100.00%	124,428	100.00%	13,457	100.00%

Table 2: Representation of HEI preferences within the sample compared to the high achieving A level applicant population and the A level applicant population

A level applicants by centre type	High achieving A level applicant population				Survey population							
	Predicted AAA+	%	Predicted BBB-AAB	%	Predicted BBB+	%	Predicted AAA+	%	Predicted BBB-AAB	%	Predicted BBB+	%
Further education	2,119	1.70%	3,749	3.01%	5,868	4.72%	303	2.25%	344	2.56%	647	4.80%
Grammar school	11,071	8.90%	8,958	7.20%	20,029	16.10%	1,609	11.96%	765	5.68%	2,374	17.60%
Independent school	15,719	12.63%	9,168	7.37%	24,887	20.00%	1,427	10.60%	484	3.60%	1,911	14.20%
Sixth form college	8,644	6.95%	11,989	9.64%	20,633	16.58%	85	9.53%	99	8.56%	184	18.10%
State school	18,442	14.82%	27,799	22.34%	46,241	37.16%	1,283	23.23%	1,152	20.66%	2,435	43.90%
Other	4,030	3.24%	2,740	2.20%	6,770	5.44%	3,126	0.63%	2,780	0.74%	5,906	1.40%
Total	60,025	48.24%	64,403	51.76%	124,428	100.00%	7,833	57.58%	5,624	41.06%	13,457	100.00%

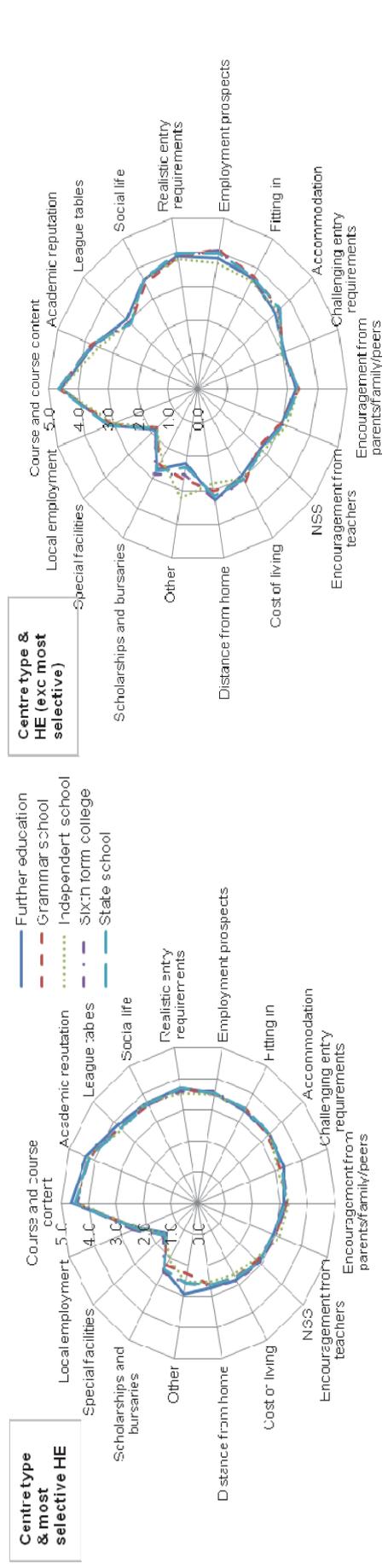
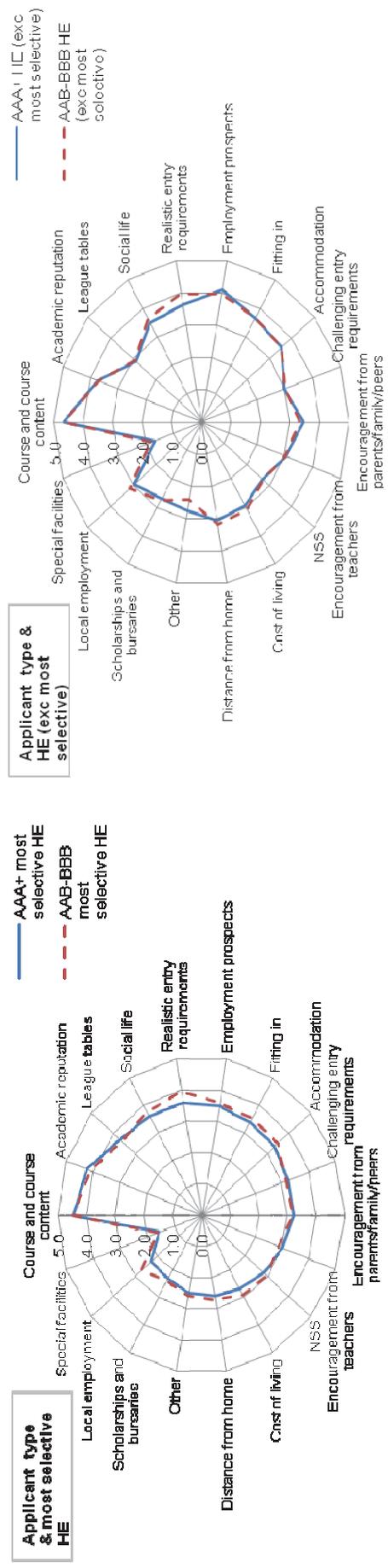
Table 3: Representation of centre types and predicted grade categories within the sample compared to the high achieving A level population

A level applicants by HEI type	A level applicant population				Survey population							
	Predicted AAA+	%	Predicted BBB-AAB	%	Predicted BBB+	%	Predicted AAA+	%	Predicted BBB-AAB	%	Predicted BBB+	%
Top HE	47,142	37.89%	21,204	17.04%	68,346	54.93%	5,130	38.12%	1,196	8.89%	6,326	47.01%
Not top HE	2,446	1.97%	17,443	14.02%	19,889	15.98%	284	2.11%	1,508	11.21%	1,792	13.32%
Combination	10,270	8.25%	25,305	20.34%	35,575	28.59%	2,419	17.98%	2,920	21.70%	5,339	39.67%
Remaining applicants (made all choices to non aligned institutions)	167	0.13%	451	0.36%	618	0.50%	-	0.00%	-	0.00%	-	0.00%
Total	60,025	48.24%	64,403	51.76%	124,428	100.00%	7,833	58.21%	5,624	41.79%	13,457	100.00%

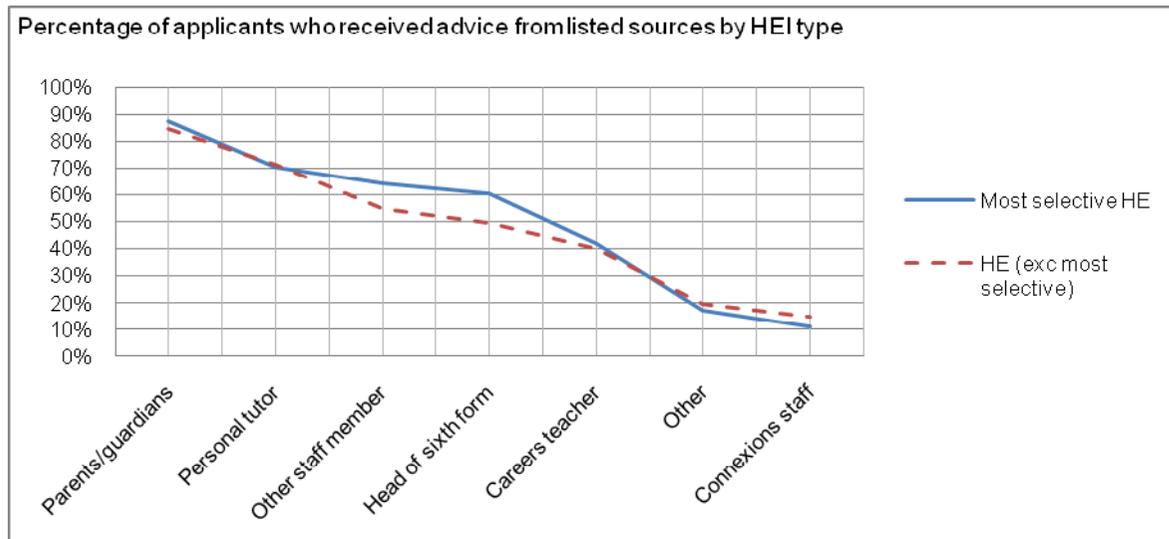
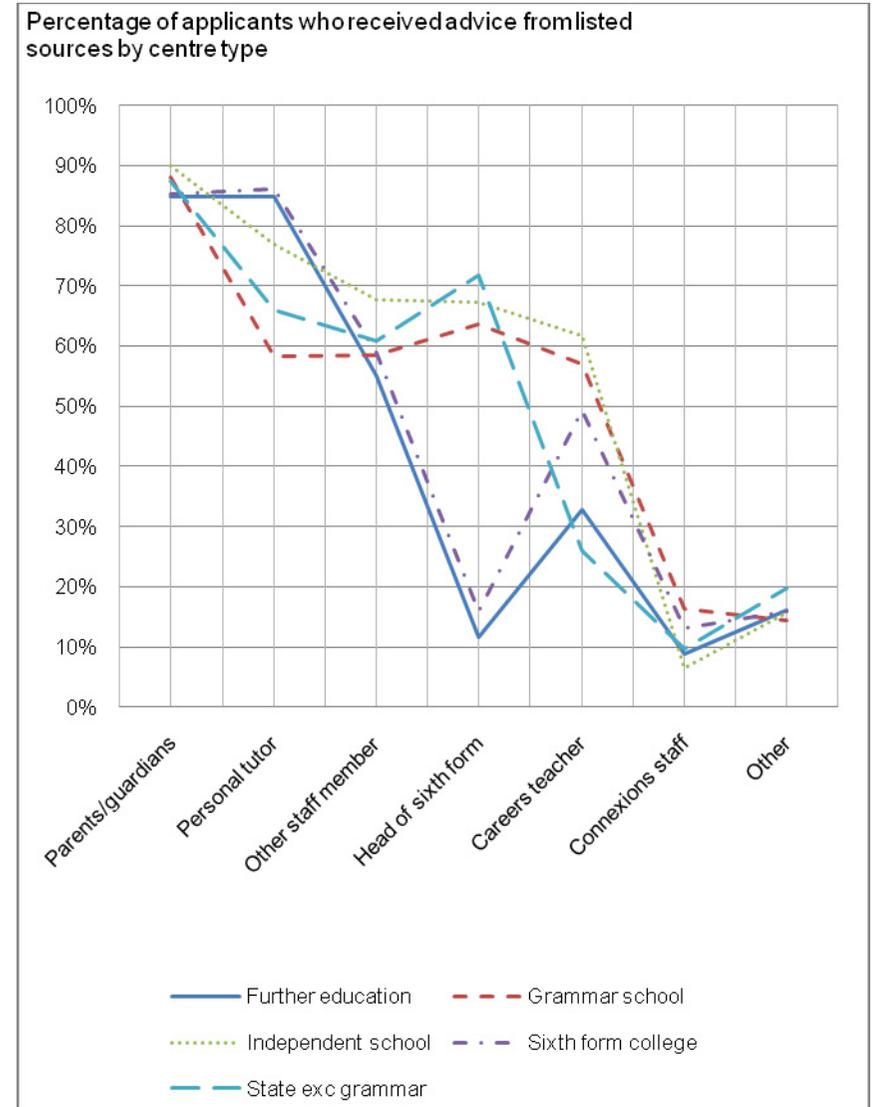
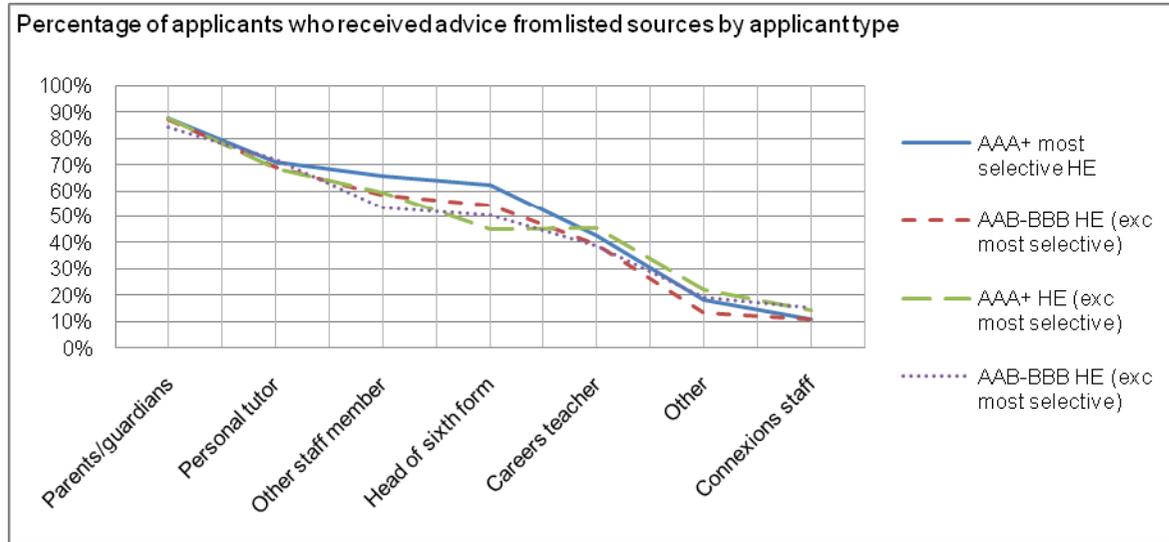
Table 4: Representation of HEI types and predicted grade categories within the sample compared to the high achieving A level population

Appendix 4: Survey question (SQ) analysis across variables

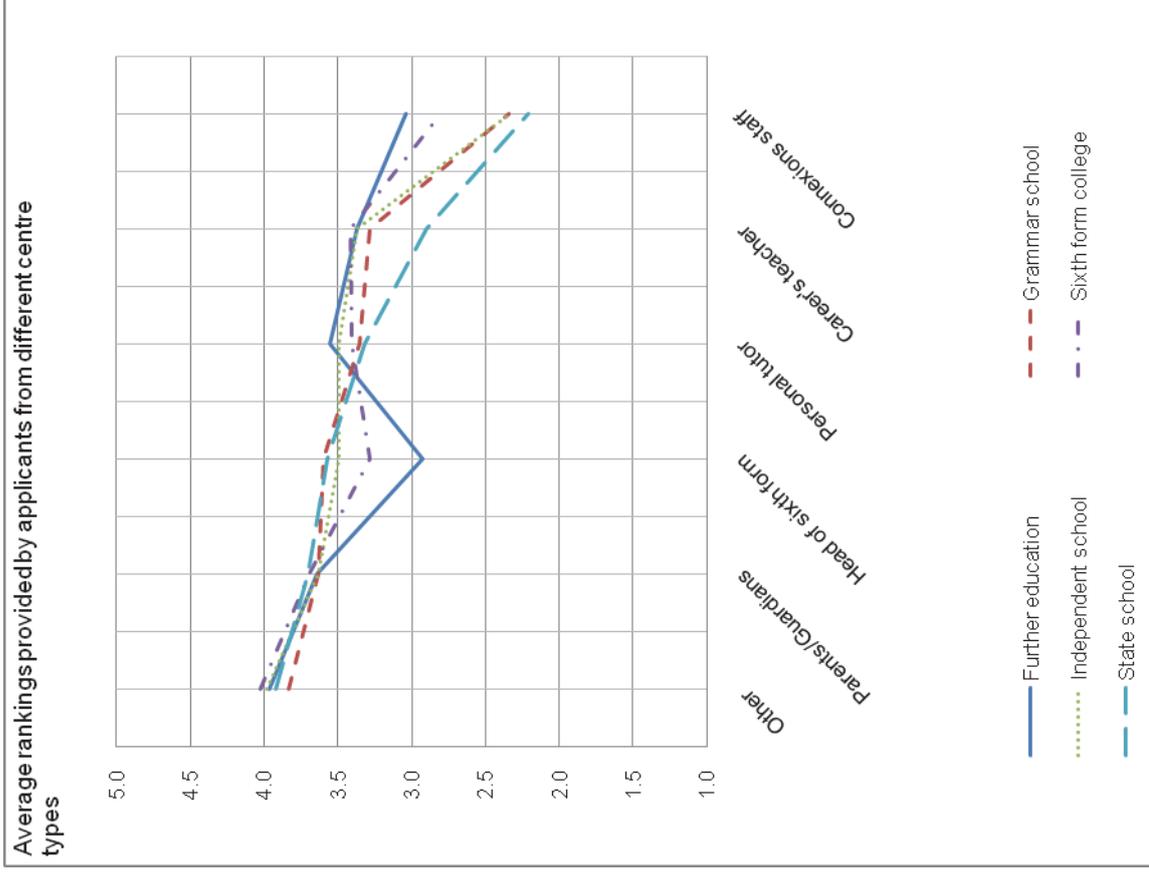
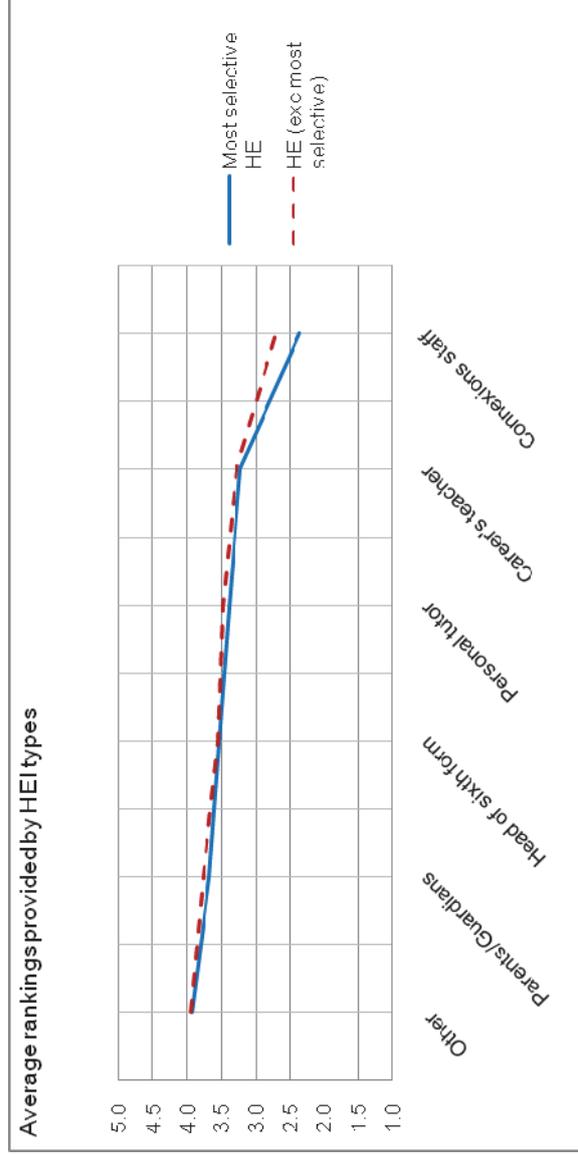
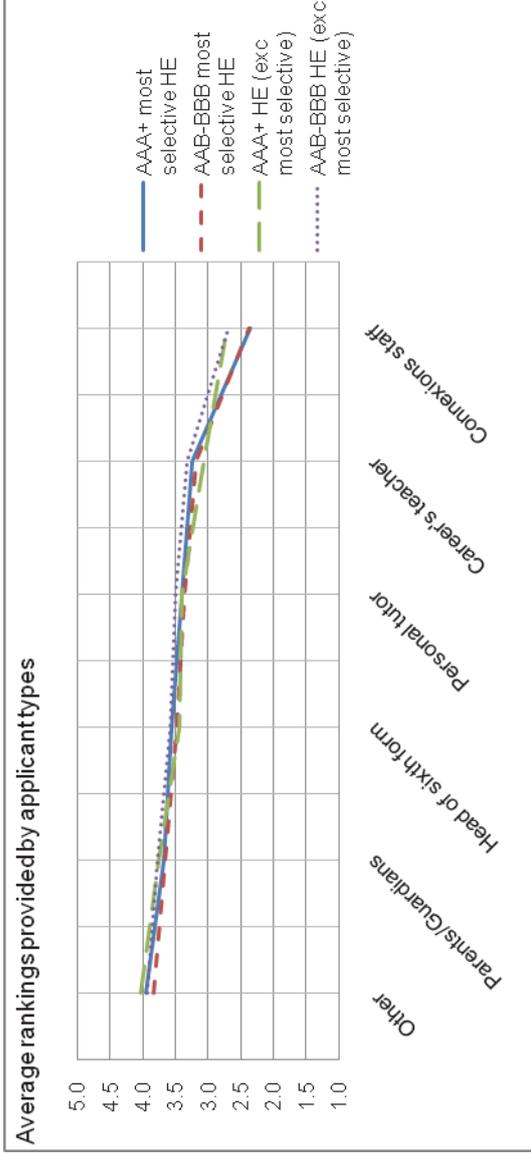
1) Analysis of SQ13: Please rate the importance of these factors in your decisions regarding institution and course on a scale of 1 to 5 (1 = not very important and 5 = very important)



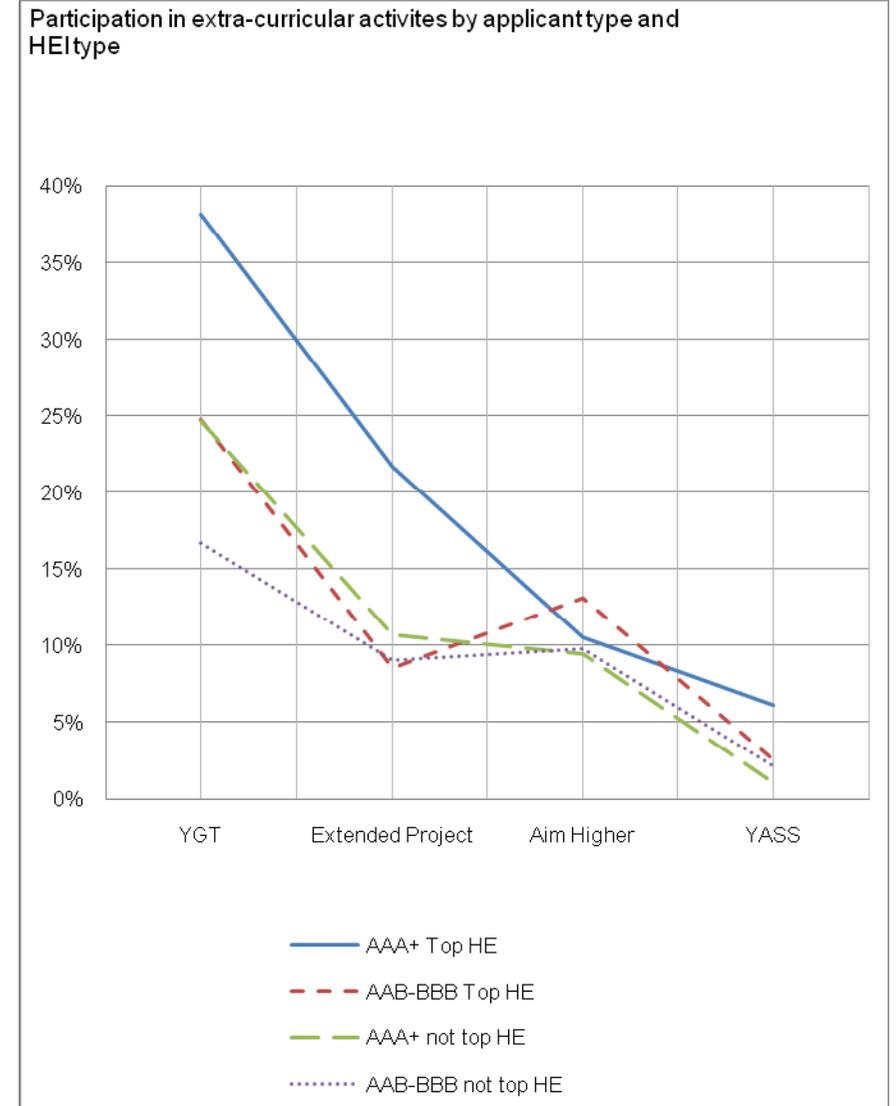
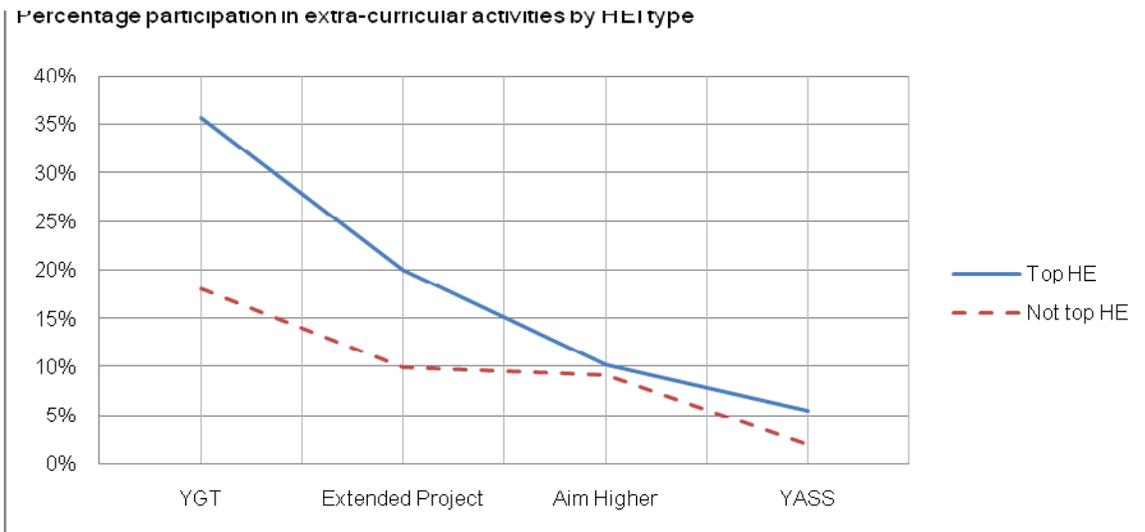
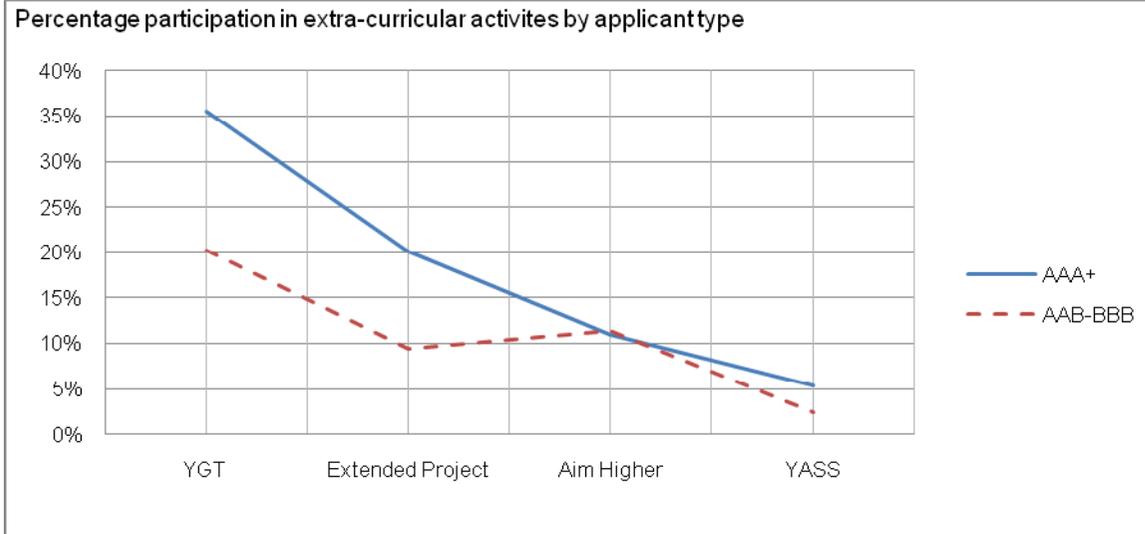
2) Analysis of SQs 16 & 17: Did you receive advice and guidance from staff at your school or college/from anyone else regarding your choice of course, institution and application?



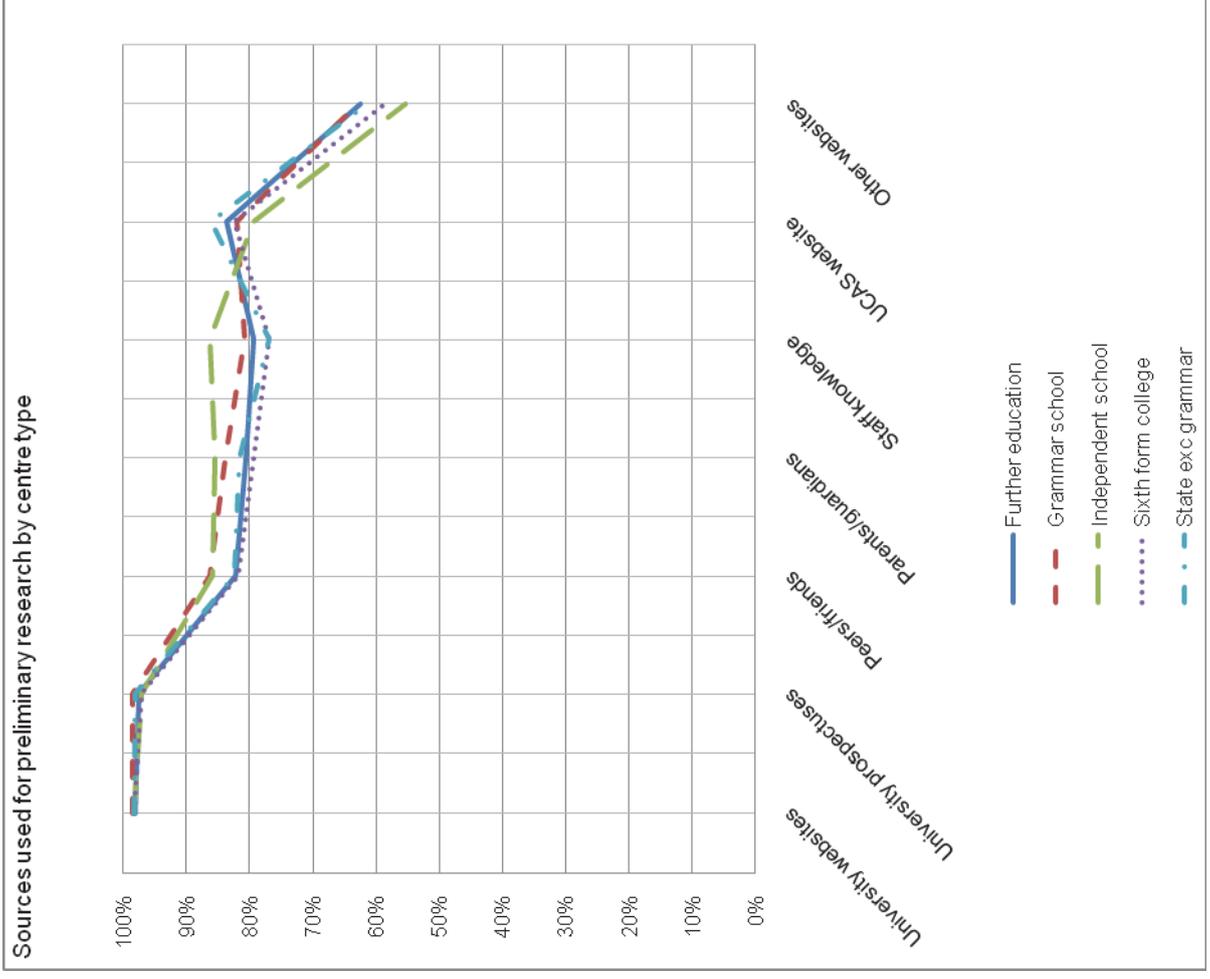
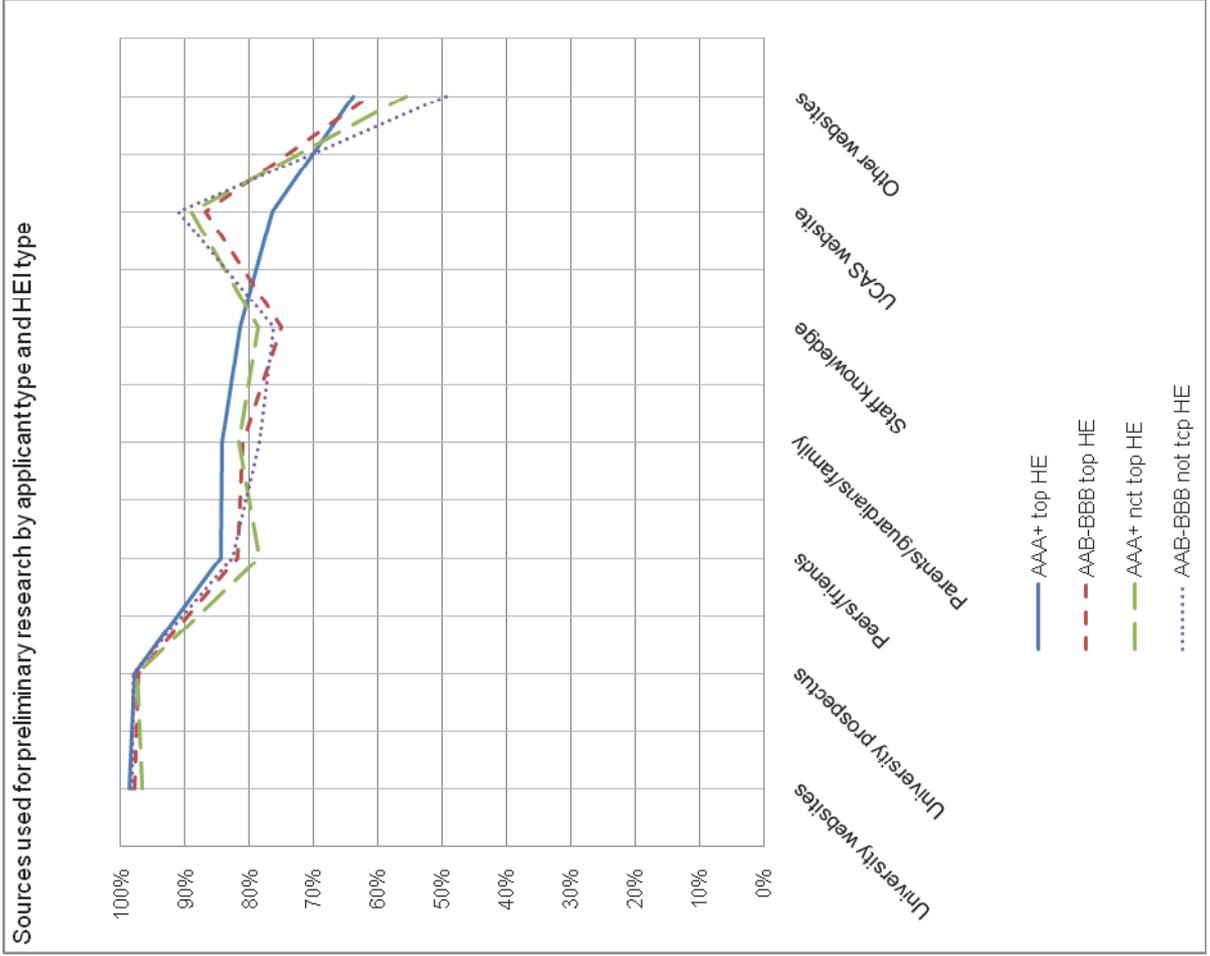
3) Analysis of SQ 18: On a scale of 1 to 5 how helpful was the advice and guidance you received? (1 = not very helpful and 5 = very helpful)



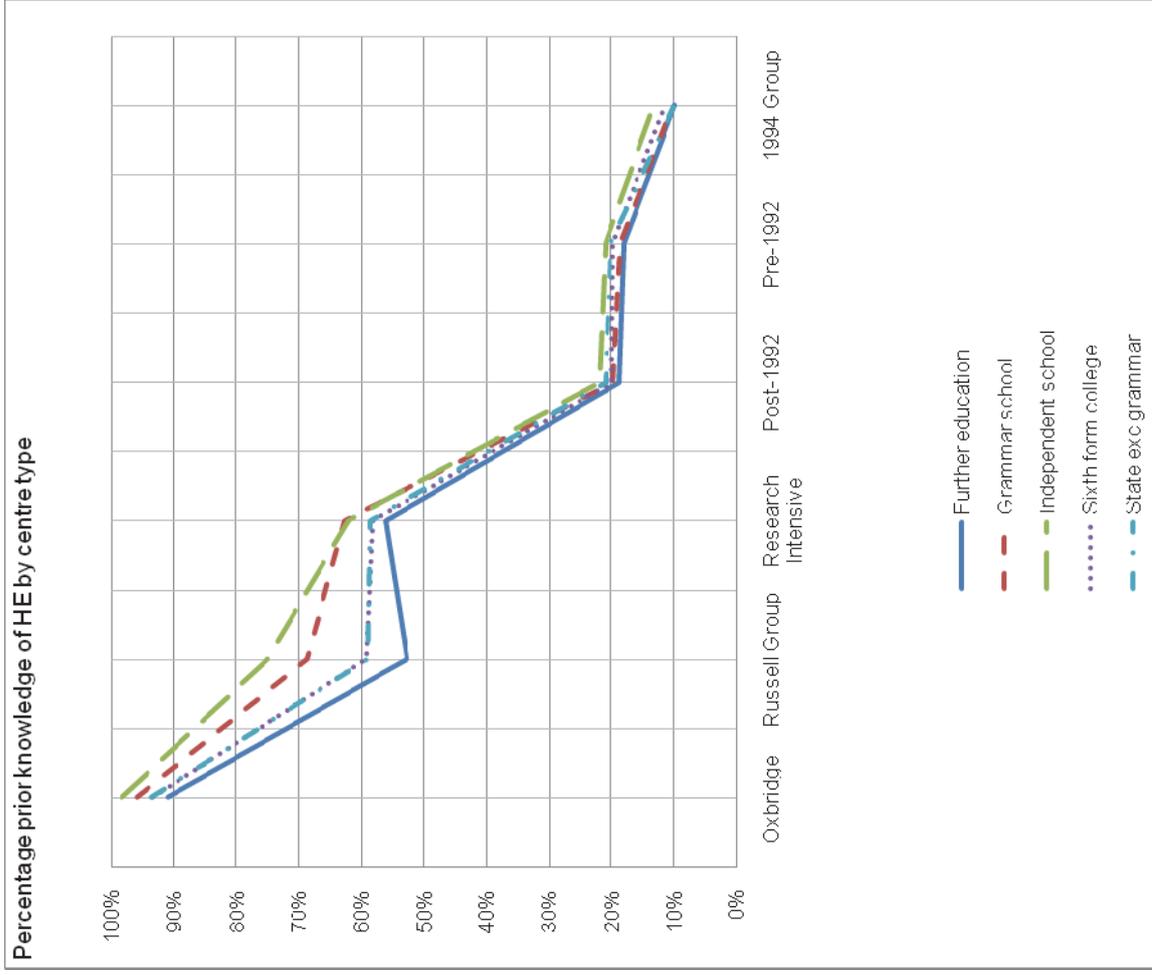
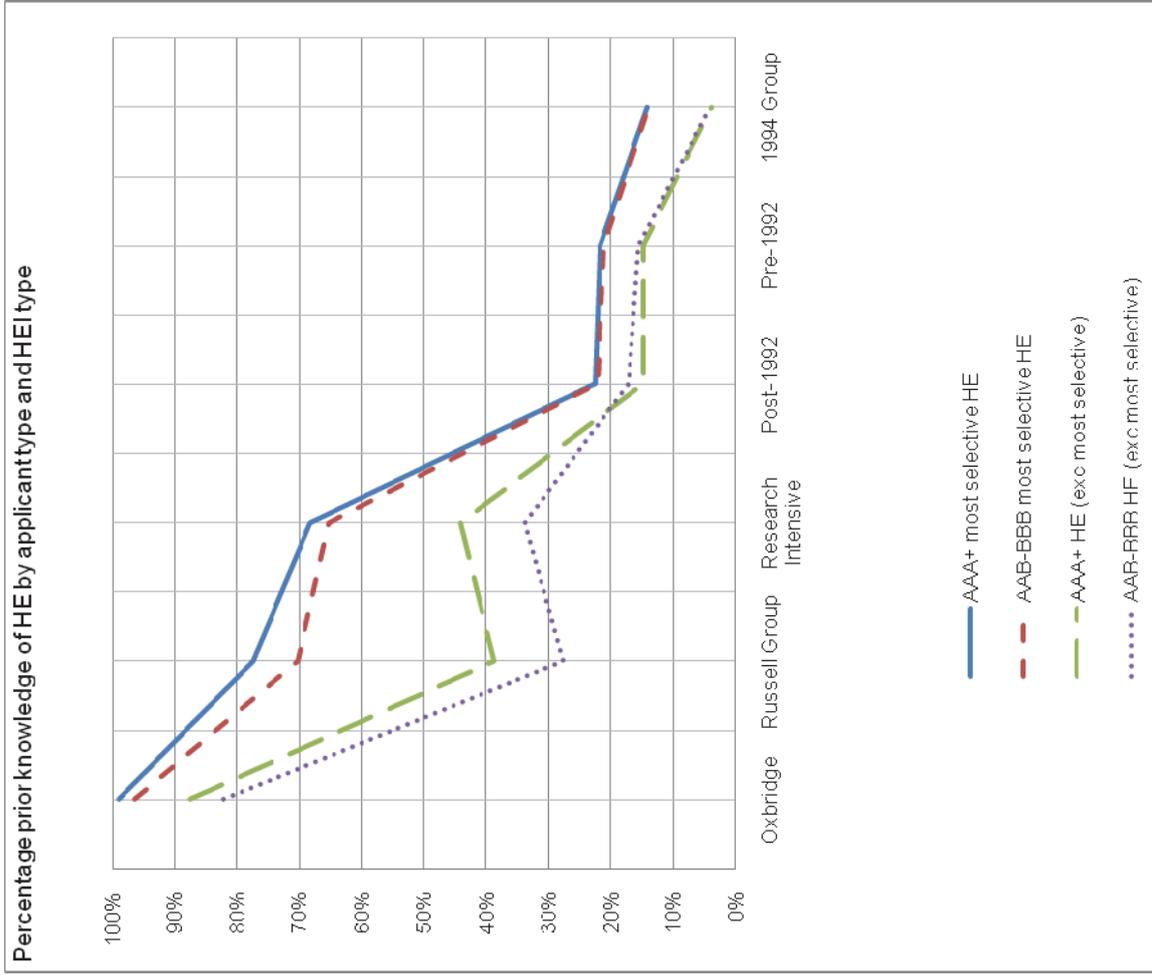
4) Analysis of SQ8: Are you involved in any extra-curricular activities, such as the Young, Gifted & Talented programme, or the Open University's Young Applicants in Schools and Colleges Scheme (YASS)



5) Analysis of SQ10: What sources of information did you use for your preliminary research into higher education?



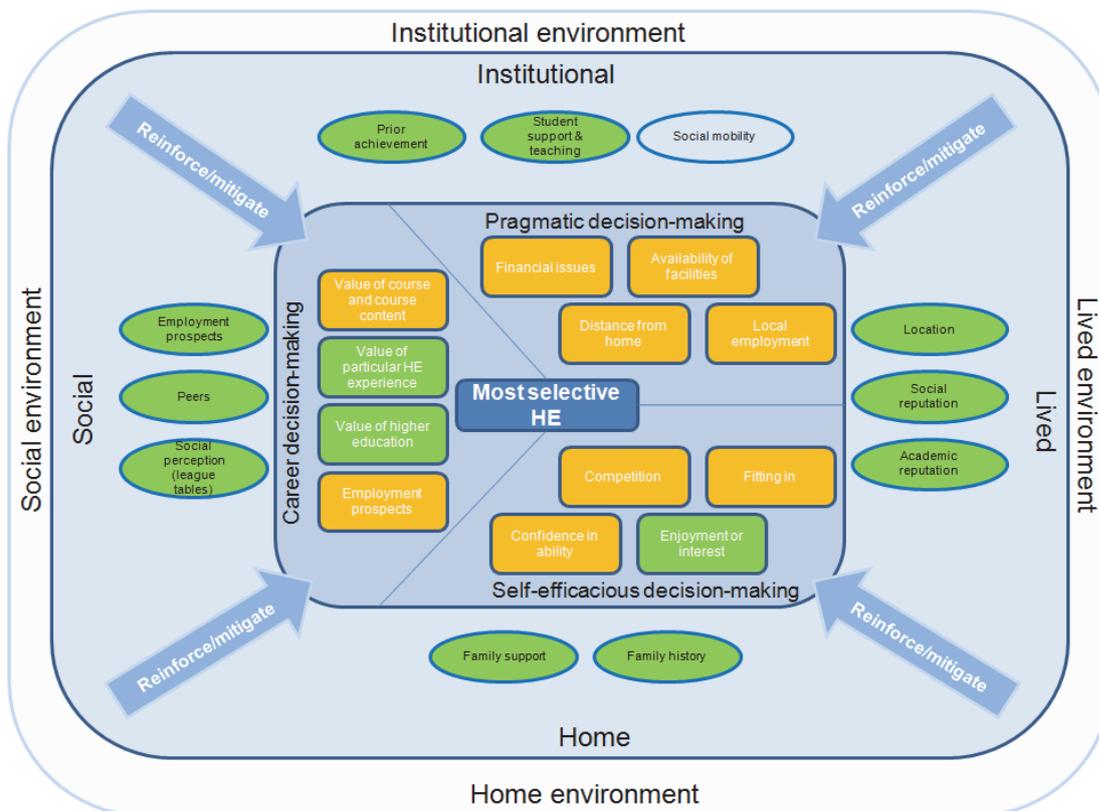
6) Analysis of SQ14: Have you heard of the following terms used as descriptors of a type of university?



Appendix 5: Interview case studies

Cases were selected theoretically, not randomly, to exhibit the differences amongst applicants to the two HEI groups and also across centre types. In this way, the case study element of the research was designed to replicate and extrapolate trends which arose in the statistical analysis by filling in conceptual gaps (filling in the whys behind the whats). Within-case analysis was conducted in order to theme each case and to facilitate subsequent cross-case pattern searching. The process of cross-case analysis forces investigation beyond premature first impressions and ensures that theory becomes more accurate and reliable because it must fit closely with the multiple realities demonstrated in the data.

Case study 1



Applicant ID	9
Alias	Emma Johns
Predicted grades	A*AB
Actual grades	CCD
Preferred institution	Most selective HE
Actual institution	HE (excluding most selective)
Centre type	Further education
UCAS applicants with A levels per centre	232
Most popular A level grades per centre	BBC

Emma Johns is an only child whose father went to a research intensive university and whose mother, despite not having been herself, was very keen to see her daughter attend a Russell Group university. Emma attended a large further education college in London. She moved to the college in the final year of her A level study, having attended a state school from years 7 to 12. According to her, the move enabled her to take subjects she was previously unable to, and to study in an environment that allowed her more freedom and independence as a learner.

Her previous school had been strict on her: they had been disparaging of her GCSE attainment and restricted her A

level choices based on this. Her college, however, identified her as a high achiever – one of a minority within her year. Rather than encouraging Emma, this status led to a number of behaviours that were the opposite of what her parents, teachers and peers anticipated, because although Emma applied to elite universities, she did not believe she could get in. She rejected advice to aim for the most competitive institutions and courses for fear of not getting in. She rejected the notion that she would achieve her predicted grades, believing instead that she wasn't capable. Lastly, and perhaps most significantly, she interpreted these external forces as demands placed upon her, and consequently felt enormous pressure to meet them.

It is impossible to say for certain what caused Emma to under-perform in her A levels, but the presence of these pressures and the fact that she was allowed to foster negative interpretations of them without the necessary support to transform them into positive influences, may have been a cause. Because she under-performed, Emma had to challenge her perceptions of higher education. She had always favoured the idea of gaining life experience from university rather than gaining an academic experience, but she was forced to reconsider her beliefs about the reputation of universities when she was placed at a non research-intensive institution. From having abjectly refused to apply to universities that weren't research intensive, she became acutely aware each university carries its own merits irrespective of its status. On reflection, Emma said that she was pleased to have gone to university despite it not having been her first choice. However, her advice to future students was perhaps more revealing of her true experience:

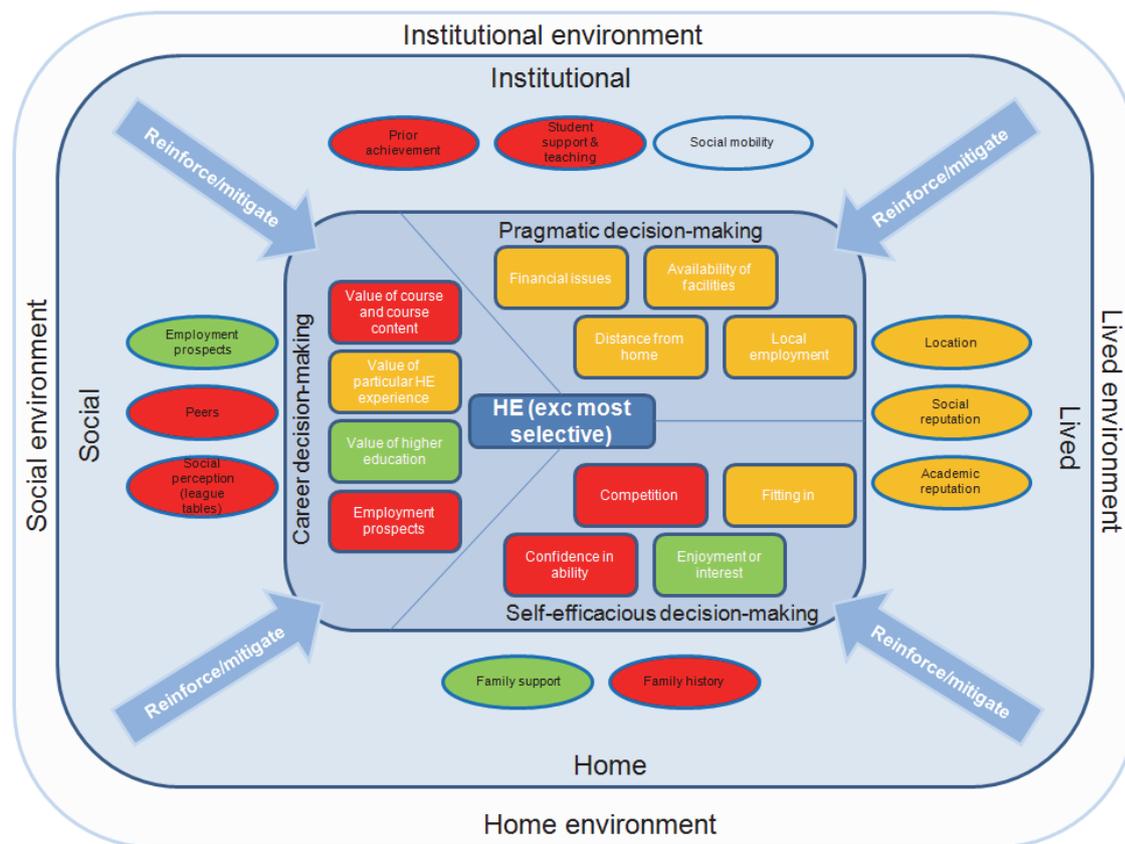
INTERVIEWER: *If you could go back in time, what more would you have liked to have known before making your application to university?*

INTERVIEWEE: I think definitely how seriously the grades they ask for are taken. I thought they could be really lenient on them but I now think otherwise [...]

INTERVIEWER: *What advice would you give to someone from your school who wants to progress to higher education?*

INTERVIEWEE: I would say definitely do something like a subject you definitely want to do but also have a back up option in case it doesn't work out for what you want to do and where you want to go. [...] If you don't want to go to university then don't feel you have to because although the experience is good, there are other options definitely

Rather than allowing her to reach her full potential the pressures experienced by Emma with regard to where to go, what to do and how to get there were perhaps confusing because she didn't really understand *why* they were important – all she ever wanted to do was experience university life. If she was able to understand the reasoning behind these expectations, then perhaps she would have interpreted them more positively and been in a better position to cope with them. Had Emma received more information than advice pre-application, or the appropriate level and tone of support post-application, her journey might have been very different.

Case study 2

Applicant ID	52
Alias	James Green
Predicted grades	AAAB
Actual grades	A*ABB
Preferred institution	Not research intensive
Actual institution	HE (excluding most selective)
Centre type	Sixth form college
UCAS applicants with A levels per centre	637
Most popular A level grades per centre	CDE

James progressed from a large sixth form college where the majority of his peers also took A levels and went on to university. He moved to the college to complete his A levels because his school did not have an affiliated sixth form centre. Despite being an extremely high achiever within his centre, he was never made to feel isolated or segregated by way of his achievements. Indeed, his interview responses suggest that he was well integrated within the year, and socialised with students with a variety of post college routes: from those going straight into jobs, to those going to not research intensive institutions to those going to research intensive institutions.

Although James was always conscious to the idea that reputation played a part in the end value of a degree, he never allowed this to impact his initial choices, instead choosing to apply only to institutions to which he realistically thought he could gain entry. These offered entry requirements well below his predicted grades, demonstrating an unfounded lack of confidence in his ability to perform at A level. Despite encouragement from his teachers and his employer to consider more demanding university offers which they emphasised could be more rewarding, James decided to put his gut feelings above this advice and stick within the levels of what he believed he could achieve. In doing so he managed to displace any undue pressure or stress which he might have felt as a consequence of aiming higher. This shows the maturity and confidence James had in his decision-making, but equally demonstrates the lack of confidence he had in his academic ability. The only evidence to suggest a reason for this was his family history: neither of his parents attended university and his only older sibling attended a local, non-research intensive institution.

In the end his inspiration to aim higher only arose on results day once he had received his grades, such was the level of doubt in his ability. Only at this time was he able to act on his belief that a more reputable institution might allow him to obtain a better degree.

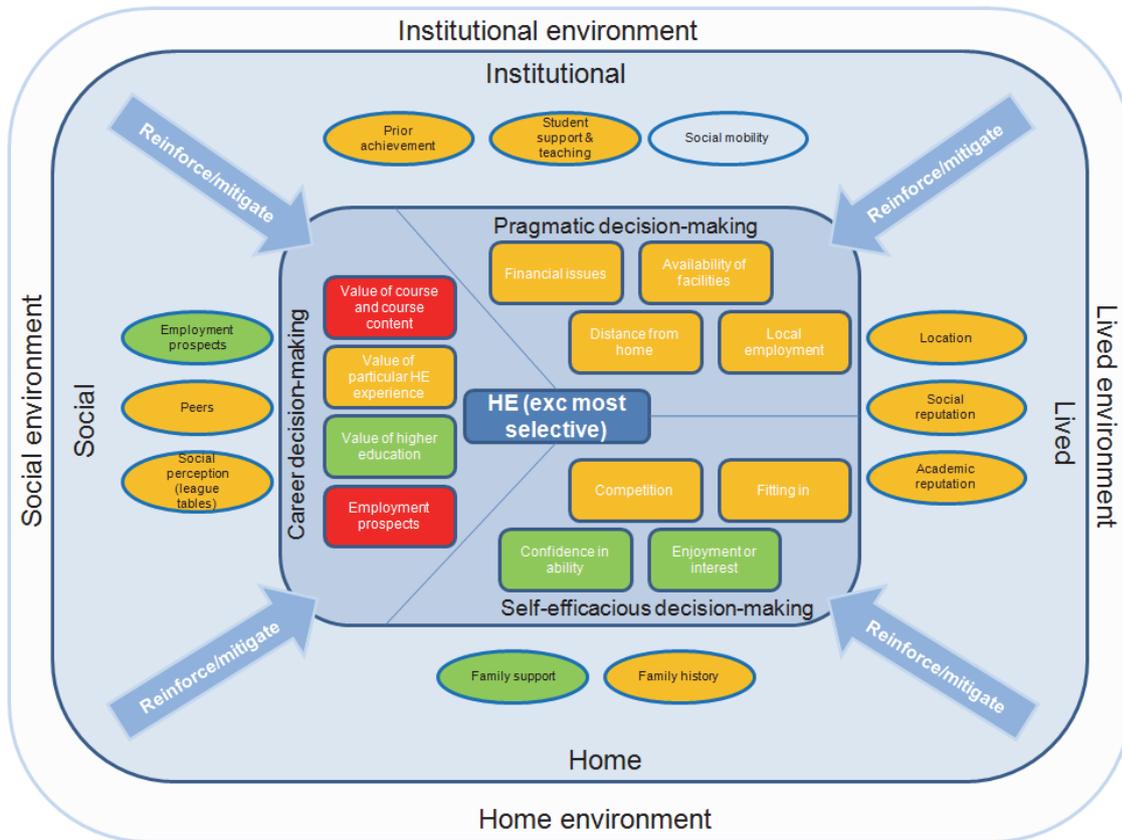
James' seemingly irrational initial decisions were undoubtedly related to a lack of self-confidence and a failure to believe he could go above and beyond what he expected of himself, and perhaps of a person from his background. In this light, his decisions were reasonable at that time. However, with the benefit of hindsight the decisions he made would have been different:

INTERVIEWER: *If you could go back to your school and give advice to someone who wanted to go to university what would you tell them?*

INTERVIEWEE: I'd tell people this: whatever you think you're likely to get definitely put down one university you definitely don't think you'd get in to because you may surprise yourself in your exams. Do a lot of your own research and make the decisions you want to do. And don't get, take advice from other people because obviously you've got to spend three or four or however many years there so make the decision you think is right for you.

This is the view that consolidates James' experience of the admissions process. It is worth considering, had this attitude been instilled in James earlier, whether he might have aimed and therefore achieved even higher. The fact is, he probably would have done.

Case study 3



Applicant ID	04
Alias	Helen Gilroy
Predicted grades	AAA
Actual grades	A*AB
Preferred institution	HE (excluding most selective)
Actual institution	HE (excluding most selective)
Centre type	Grammar School
UCAS applicants with A levels per centre	99
Most popular A level grades per centre	BBCC

Helen Gilroy is an only child and neither of her parents attended university. She went to a grammar school where she achieved ten A*s for her GCSEs and was predicted three As for A level and achieved an A*, an A and a B. Despite being deemed by her school as one of their academically brightest students, Helen was set on pursuing a career in costume design, which stemmed from the enjoyment she had taken in studying textiles at GCSE level. Consequently her university choices were primarily to reputable institutions that specialise in theatre and the arts.

Although she received positive support from her parents, who told her that she was free to choose her own career pathway, certain staff members at her school actively discouraged her from applying for a practical course at non-selective institutions. Instead she was put under a considerable amount of pressure to apply to study maths at Oxbridge. She received a number of negative comments from key school staff, including her headmaster, to the effect of 'you are wasting your intelligence by studying a practical course'.

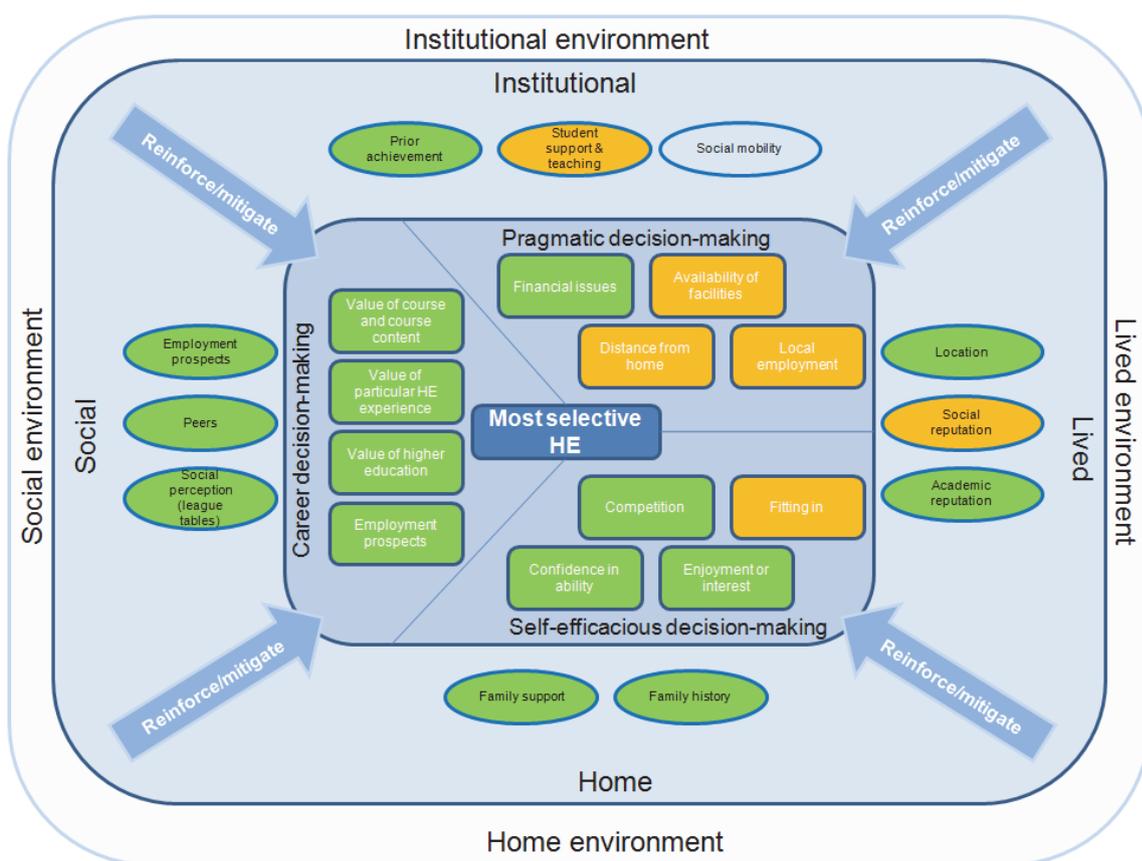
Not only did she feel that her school was geared purely to send students to selective institutions, they were unwilling to provide information, advice and guidance on any other pathway. Helen felt that this was because her grammar school was primarily interested in students that would progress onto selective institutions and 'make the school look good'. Helen also reported two other occasions where her fellow student colleagues were similarly pressured; in one case, her colleague was unsure whether she wanted to attend university but because she was pressurised to apply to selective universities and was not provided with IAG on any other pathways, she realised too late that she could not achieve the entry requirements and has taken a job working in her home town.

Helen was able to source supportive and unbiased IAG from her careers tutor, with whom she had a good relationship and who was a personal family friend. Her careers tutor was able to provide her with details of X institution and, as Helen had received positive first hand information from her friends on the university, she made a relatively quick decision and applied, and was accepted there.

The inconsistent IAG Helen received at her grammar school meant that her research into higher education was independent and mostly web-based. However it would appear that in Helen's case, this information was not clear on the necessary entry requirements as, despite being predicted far higher grades than were required for all of her choices, she was rejected from all five institutions because they all required an arts foundation qualification. Furthermore, Helen had expected to fund her studies through a student loan yet as a foundation degree student, she is not entitled to funding. This has led to Helen using her savings and working part time to fund her current studies. Reflecting upon her journey, Helen advises future students from her school to:

INTERVIEWEE: Really get advice from the teachers who are willing to give it and give it a professional sense and just don't feel pressured into doing things because it's your life and your next three years of doing something so whether it's a certain course you want to do or a certain place you want to go, as long as you've got enough information to make an educated decision on it... it should be your decision because it's you who's got to live with it and not them.

Helen is very happy studying at X institution but it could have been very different if she had reacted badly to pressure. Apart from a couple of exceptions (where staff reacted positively to her decision-making) she was refused supportive advice and guidance because she had chosen a non-traditional pathway where her academic achievement would not be reflected in the school's progression statistics. Rather than deterring her, the pressure from her school made her more resolute and determined. Her decision-making was fuelled purely by her desire to follow a specific career. Although she had to change her plans to accommodate an additional year's study, which is also unfunded, she remains confident that she has made the best decisions for her.

Case study 4

Applicant ID	3
Alias	Geoff Spencer
Predicted grades	AAA
Actual grades	A*, A*, A*, A
Preferred institution	Most selective HE
Actual institution	Most selective HE
Centre type	Further education college
UCAS applicants with A levels per centre	BCC
Most popular A level grades per centre	A*A*A*A*A

Geoff, a typical high achiever in many respects, progressed from a large FE college to one of the most prestigious institutions in the country to study engineering. He achieved ten A*s at GCSE and three A*s and one A for A level. Geoff's decision-making in relation to HE is embedded in his background: both of his parents attended university (one to study maths and the other chemical engineering) and both his uncle and cousin studied science-related subjects at the same college and university as Geoff. His parents were able to support him financially so that Geoff did not have to apply for student funding. Geoff was confident in his abilities and had always wanted to go to university. It was assumed by Geoff and by those around him that this was his natural pathway.

Geoff did not feel pressured to go to university by his family or peers. All of his close friends went on to study traditional subjects at selective institutions. He felt a slight pressure from his college who singled a small number of students to receive specialist IAG to get them through the application process. He felt supported by his college in almost every respect and had access to advice and guidance from a range of sources such as his physics teacher, head of science and head of arts. Geoff competed to achieve the best grades with a fellow chemistry student at college, which he enjoyed and found to be motivating. He stated that any pressure he felt came from himself and his desire to achieve as well as he possibly could.

His primary motivation for applying to his first choice institution was the perceived value of the course and the institution to his future career. He felt that he could have had 'an easier ride' at another institution but that this might not benefit his employability after graduation to the same extent. He chose his course because he felt that it would lead to a rewarding career.

A highly self-motivated student, Geoff arranged his own mock interviews at college. His ability to interview well was his only area of doubt, stemming from limited previous experience. The college did not offer mock interviews for engineering students because, Geoff felt, they did not have teachers that were qualified in engineering to give them although he noted that he was the only one not to have a mock interview arranged for him. He felt that the mock interview did not prepare him for the real thing, which did not go very well and led to the offer that was made him being higher than he previously anticipated (an A* in further maths, two As in his other subjects as well as the A* he had already gained in maths). The additional pressure from the increased entry requirements meant that Geoff sought out extra support from his college to get him the required grade in further maths. He also consciously chose to view his first choice institution as aspirational and his second choice, a highly reputable research intensive institution, as the realistic option. Geoff felt that overall this additional pressure had a positive effect on his decision-making as it motivated him to work harder to achieve higher grades.

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