Sheffield Hallam University | Sheffield Institute of Education

Closing the gap: understanding the impact of institutional financial support on student success:

Final Project Report for the Office for Fair Access

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Contents

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Closing the gap: understanding the impact of institutional financial support on student success

Executive Summary

1. This report discusses the development of a statistical model for the evaluation of the effectiveness of institution's financial support packages (bursaries, scholarships and discounts). The model can:

    - track recipients from enrolment to graduate outcomes through student records data
    - compare outcomes of bursary recipients with those slightly and significantly better off (by household income)
    - evaluate the performance of recipients over time and in relation to changes in bursary support levels/conditions
    - be used collaboratively for institutional comparative purposes
    - link (via student records data) with the survey instrument developed as part of this project

2. The first phase of the research focused on the management of administrative data and the design and testing of a statistical model. The statistical model was designed by a research team working across five partner institutions: Sheffield Hallam University; the University of the West of England; Oxford University; King's College, London; and the University of Bedfordshire. During the summer of 2015 this model was tested using administrative data from all five institutions for students starting in academic years 2009-10 and 2012-13.

3. The overarching research questions for this project are: *Do financial bursaries for financially disadvantaged students ameliorate their educational disadvantage relative to other students? Do they in effect* ***close the gap*** *between outcomes for these groups of students?*

4. Given the nature of the enquiry the research question has to be explored retrospectively, and the project team decided to build a statistical model using *binary logistic regression* within a *quasi-experimental study*, where bursary holders comprise an experimental group and other students comprise a comparator group.

5. Analysis from this model therefore enables the outcomes of the bursary group to be compared with those students who might be expected to have more positive outcomes. There are three possible results from any analysis:

    - *The bursary group has significantly better outcomes than the comparator group.*
    - *The bursary group has equivalent outcomes to the comparator group – i.e. no significant difference.*
    - *The bursary group has significantly worse outcomes than the comparator group.*

6. It is important that the interpretation of the results from the analysis that institutions carried out is nuanced and critical. In the absence of a true control group, formal inference of causality between bursaries and differences in outcomes is impossible. Nevertheless, in broad terms, a significant positive difference in outcomes should be interpreted as a strong evidence for the effectiveness of bursaries, and evidence that financial support can 'close the gap' between recipients and their peers.

7. While this report does not go into institution-specific detailed findings, which are commercially sensitive, analyses from each of the partner institutions indicate that outcomes for financial support recipients at are least equivalent to those from their comparator groups (ie of students not in receipt of financial support).

Model Development

8. The research team were able to draw on a working statistical model developed previously by researchers at the University of the West of England (UWE) and the model described and reported herein was strongly based on this initial work, albeit with a wider dataset, longer timeframes and a more robust categorisation process.

9. Two cohorts were selected for analysis to allow for the exploration of different outcome measures: those entering in 2009 and those entering in 2012.

10. The dataset comprised the following:

- Full-time UK first-degree undergraduate status
- English domiciled – to avoid issues around conflicting student support systems in other UK jurisdictions
- HEFCE-funded students – to exclude NHS-funded students with different student support arrangements who are often not eligible for bursaries
- Future iterations of the working model can incorporate both Foundation degree (FD) students and continuing NHS bursary recipients (for those that still receive them)

Outcome measures

11. In order to test performance of bursary recipients against the comparator group the research team settled on four dichotomous outcome measures within the statistical model:

- Retention into second year of study (2012 cohort)
- Completion of degree within five years (2009 cohort)
- Attainment of ‘good’ degree (2009 cohort)
- The DLHE ‘successful outcome’ metric – in graduate level work or futher study six months after graduation (2009 cohort)

Implementation issues

12. In practice the first trial of this statistical data management and analysis process revealed several issues which impact on institutions' ability to easily

implement the model. Institutions reported that they were able to gather most of the required data; the exceptions were bursary data for the 2009 cohort (bursary scheme had usually changed and in some cases student data management systems had changed in the intervening years).

- Institutional contacts involved in testing/piloting the model were asked to report on whether the use of the statistical model enabled them to better evaluate the effectiveness of their financial support. Responses suggested that it was useful, revealing patterns of retention and success in relationship to financial support.

- Benefits for institutions were that they could evaluate the effectiveness of their own financial support packages, and more importantly align institutional structures so that they can adopt a whole-institution approach with high level engagement, for example that those working in student data management and with responsibility for HESA data returns work more closely with those responsible for developing and administering financial support packages.

- Connecting the dataset created as part of the statistical model development enables a clear link to the ability to survey bursary recipients (see below). Institutions can simultaneously track the outcomes performance of recipients and gather their perception of the benefits of that support.

Phase One summary

13. Phase One of the project successfully developed and implemented a working statistical model for assessing the impact of student bursaries. This was achieved using data that are (in most cases) readily-available within institutions and a statistical technique that is easily implemented using common desktop software, i.e. SPSS.

14. HESA has agreed to provide data to institutions, who would link data they alone hold (most importantly the HI and bursary data) and then undertake the analysis. This approach offers strong potential for improving the take-up and validity of the analytical framework.

15. It will be up to institutions that use the tools developed in the project to decide on their own definition of effectiveness, and this is likely to vary between sub-cohorts. Where multiple bursary / scholarship schemes are in use, the tools may - over time - help institutions more effectively target available financial support. The nature of inferential statistics is such that institutions will be well-advised to examine at least two sequential years of data in order to examine the stability of findings over time and to reduce the risk of acting on 'false positives/negatives'.

Phase Two data collection tools

16. Phase Two of the research included development of a set of survey and interview tools that will enable institutions to gauge the effectiveness of their specific financial support packages, adding more fine grained analysis of how individual recipients use and value support offered as part of access agreement expenditure. Unlike the statistical model which provides evidence

about outcomes, survey and interview data from existing students focus on what recipients *perceive* to be the benefits of financial support, in relation to their financial ability to continue study through to completion.

17. The design of the **survey** was informed by the desire to build on the student data management capabilities we had drawn on for the statistical model. This enabled institutions to create a valuable resource in the form of demographic and course-specific data on all financial support recipients.

18. As with the statistical model described above, these tools were designed to be recommended for sector-wide use in order to develop a longitudinal understanding of the value of financial support. Potentially, such analyses could be combined by groups of institutions that wish to produce a comparative understanding of the impact of institutional financial support on student success (e.g. for benchmarking purposes).

19. A key feature of the survey tool is that it is designed to link with student data records: each bursary holder receives a unique version of the online survey with demographic (e.g. age, gender, household income level) and institutional data (e.g. course, level etc) already included as 'hidden fields'; this shortens the survey and significantly reduces the chance of errors. So while the statistical model was tested using historical data, once new recipients are 'flagged' in student data systems they can be surveyed about the perceived impact of financial support as they progress though the student journey. Potentially institutions can compare perceptions with actual evidence of outcome effectiveness in real time.

20. In order to test the usefulness of the survey tool the research team carried out some limited comparative analysis among the four partner institutions. This revealed that:

    - 65% of respondents had undertaken paid work during the previous academic year (2014-15). When asked how many hours 65% reported working more than 8 hours per week; 21% between 5 and 8 hours; and 15% worked up to 4 hours per week.
    - When asked about the importance of paid work to their ability to financially continue at University 26% selected Very Important and another 17% chose Important. However, for a further 20% it was Not at all important.
    - Just over half - 53% - reported that they knew they were eligible for institutional financial support prior to starting their course. 30% were not aware and 16% unsure.
    - However, only 27% were aware of the amount of financial support they would receive, with 59% not aware and 14% unsure.
    - When asked about how respondents rated the importance of their financial support to their ability to financially continue their studies, 67% reported it was Very Important and another 18% Important. Only 2% reported financial support Not at all important.
    - When cross-tabulation was applied to bursary size and whether respondents undertook paid work there was a predictably inverse relationship: over 50% of those who received between £500 and £1000 did

so, while only 27% of those on between £1001 and £1500 did so and only 23% of those in receipt of £4,000 or more did so.
- A similar relationship was found when bursary size and numbers of hours worked were cross-tabulated: of those on the lowest bursary ranges (£500-1500) 63% worked 8 hours or more per week. Among those receiving between £2001 and £3000 only 25% reported working more than 8 hours a week.

21. The survey questions are now being cognitively tested during the autumn of 2016 prior to being included as recommended tools in OFFA access agreement guidance for 2018-19.

22. The research team have also developed a suite of **interview questions** that institutions can use to evaluate the effectiveness of their financial support packages from the perspective of recipients while they are studying. The questions are also designed to delve deeper into the workings of financial support packages; for example, to explore the optimum time of year for payments to be made, the distribution across the degree programme, or the mixture of benefits (see Appendix 3).

Conclusions and Recommendations

23. We were tasked with designing research tools that could enable institutions to decide whether their financial support can ameliorate their educational disadvantage relative to other student groups. The statistical model we have developed is robust and fit for this purpose, within the limitations outlined above. Its robustness resides in the use of easily available data sources that institutions have to collect for their own purposes and for reporting to HESA, HEFCE and OFFA. Of the 15 control variables, twelve use the same fields that institutions use for HESA returns. Household Income data is known at the point of acceptance and institutions apply their own bursary data. However it should be reiterated that the statistical model as presented here would not be sophisticated enough on its own to indicate failings of any specific financial support package.

24. It can:

- track recipients from enrolment to graduate outcomes through the link to student records data
- compare outcomes of bursary recipients with those slightly and significantly better off (by household income)
- evaluate the performance of recipients over time and in relation to changes in bursary support levels/conditions
- be used collaboratively for institutional comparative purposes
- link (via student records data) with the survey instrument developed as part of this project

25. The model cannot prescribe a solution or be used to explore hypotheses about the optimum value of a bursary for specific student cohorts; but it can show whether there is a decline in relative outcomes for the bursary cohort. It

will be up to each institution to decide how best to use the model and the other tools - the survey and interview questions which can be used to explore some potential solutions if samples are sufficiently representative. Evaluative tools are only as good as the intentions of those that use them.

Recommendations

26. Based on the research outlined and discussed in this report we make the following recommendations to OFFA and the wider sector:

- OFFA requires all institutions to use robust evaluative methods to explore the effectiveness of institutional financials support. OFFA believes these tools to be robust and therefore recommends their use when referencing the relative performance outcomes of their financial support students in access agreement reporting.
- OFFA should recommend that the optimal time for institutions to operationalise statistical model data analysis should be between January and May of each year.
- OFFA should recommend to institutions that the optimal time to administer the survey of financial support recipients is during November and December. This is the ideal time to capture the recollections of students who will be asked about their use of financial support in the previous academic year. The timing will also avoid a clash with the National Student Survey which takes place in the second semester. We recommend that institutions using the interview questions also do this during the autumn window of opportunity.
- Institutions would need to take a whole-institution approach to fully adopt and gain the most from these evaluative tools. It requires people with divergent skills and based often in different directorates coming together, for example those with knowledge of students data records and HESA reporting fields and those with knowledge of institutional bursary schemes. This will require high levels of institutional engagement.
- It will be up to institutions that use the tools developed in the project to decide on their own definition of effectiveness. Where multiple bursary / scholarship schemes are in use, the tools may - over time - help institutions more effectively target available financial support. The nature of inferential statistics is such that institutions will be well-advised to examine at least two sequential years of data in order to examine the stability of findings over time and to reduce the risk of acting on ‘false positives/negatives’.
- Institutions should be recommended to run the statistical model analysis and report on outcomes performance of financial support recipients annually, as part of their access agreement reporting.
- Institutions should be encouraged to use the survey and interview tools as and when necessary, and always when referencing the relative performance outcomes of their financial support students in access agreement reporting.
- Institutions should be encouraged to take the opportunity to compare analysis findings with other institutions / groups of institutions in order to broaden our sectoral understanding of the types and levels of support that are most beneficial in specific contexts.

- OFFA should commission occasional comparative analyses of outcomes published in access agreements in order to build an ongoing sectoral overview of the effectiveness of institutional financial support.

Closing the gap: understanding the impact of institutional financial support on student success

1. Introduction: aims and objectives

27. The aim of this research is to better understand the impact of institutional financial support - bursaries and scholarships - on undergraduate student success of those from underrepresented student groups in English higher education. The joint OFFA and HEFCE National Strategy called for measures that could result in “students from disadvantaged backgrounds completing their courses, fulfilling their potential and going on to their chosen career or postgraduate study” (BIS 2014). To this end OFFA's strategic plan expects institutions to take an increasingly evidence-led approach to improving performance across the whole student lifecycle (OFFA 2015). The current research focuses on the evidence institutions gather that help measure the impacts of institutions' financial support packages on three key areas:

    - retention and progression
    - success (degree outcomes, progression to further study and graduate employment)
    - student wellbeing and participation throughout the student lifecourse

28. The two-phase project was designed to initially identify the administrative data available to partner institutions; secondly, to analyse that data to measure the efficacy of their various financial support packages using a statistical model designed by the research team. Alongside this the team also developed a survey tool and a bank of interview questions to explore the value of financial support to recipients that are now recommended for use in access agreement reporting across the English HE sector. The second phase of the research involved piloting the statistical model and testing the survey tool across a wider group of institutions in order to explore differential behaviour (in relation to financial support) among specific cohorts with shared demographic characteristics.

29. The first part of this final project report focuses on the management of administrative data and the design and testing of a statistical model. The statistical model was designed by a research team working across five partner institutions: Sheffield Hallam University (the lead institution for this project); the University of the West of England; Oxford University; King's College, London; and the University of Bedfordshire. During the summer of 2015 this model was tested using administrative data from all five institutions for students starting in academic years 2009-10 and 2012-13.

1.2 Background - the issues

30. While previous OFFA and other research finds no macro-level direct link between institutional financial support and applicants' choice of institution or students' likelihood of continuing in their studies (OFFA 2010; Harrison and Hatt 2012; Nursaw Associates 2015), other research findings suggest that financial support can be effective in certain contexts and for certain types of

student. These can be categorised under three headings: complexity; effects on specific cohorts; and institutions own evaluation which often finds some impact.

31. **Complexity**: The complex nature of financial support on offer to applicants has been seen by many as a barrier to applicant decision making. McCaig and Adnett (2009) noted that the plethora of competing institutional financial support schemes promoted in the initial set of OFFA Access Agreements led to "obfuscation rather than clarification from the perspective of the consumer" (p.18) (see also Callender and Wilkinson 2013). While all institutions were obliged to offer at least the mandatory £300 bursary for applicants from poorer family backgrounds between 2006-07 and 2012-13, many institutions exceeded this amount. Some added specific scholarships for (sometimes limited numbers of) those from particular groups, such as mature or disabled students, those applying to shortage subjects and applicants from schools and colleges with pre-existing links to the HE institution or who were otherwise deemed meritorious. This was seen as creating a market in bursaries in the absence of variable fees[1] as envisaged by government policy (HE Act 2004; Brown and Scott 2009; McCaig and Adnett 2009). The introduction of the National Scholarship Programme (NSP) to replace mandatory bursaries for all poorer students in 2012-13 further complicated the picture for applicants as awards were allocated post-enrolment and could have no effect on the decision making process (Diamond *et al* 2013; Bowes *et al* 2014; McCaig 2014). In some instances providing NSP awards actually reduced the amount institutions were able to afford to support non-recipients (McCaig 2014). A study by Carasso, Ertl and Holmes (2012) found that the complexities of institutional support schemes often result in potential applicants not even trying to gain a clear picture of financial cost and benefits of higher education (see also Esson and Ertl, 2014). Such complexities severely hamper our ability to evaluate the role of financial support as an element of student choice which is central to the marketisation aims of the 2011 and 2016 White Papers (BIS 2011; 2016).

32. **Effects on specific cohorts**. The literature identified in Nursaw Associates' report (2015) reveals the extent of variation in impact by specific group, notably in relation to different attitudes to debt among part-time (Callender 2013) and mature students (McVitty and Morris 2012; González-Arnal and Kilkey, 2009; Davies et al, 2010). Mature and part-time students, the groups least able to take on debt, are the two groups whose participation has declined most since the introduction of higher fees although mature student numbers have since recovered. Work-based learners (Rose-Adams and Hewitt, 2012) are the groups most likely to cite financial issues as a reason for non-continuation in the studies, while disabled learners often have specific financial needs (Nursaw Associates 2015). Again, institutional research and evaluation often reveals the extent to which these cohorts rely on financial support to remain in HE. Furthermore, some minority ethnic students are more debt-averse and thus less likely to take out loans and more likely to work during term time than their white peers (UUK, 2005); these same

[1] Only one institution did not immediately raise tuition fees from £1,000 to £3,000 from 2006-07 and it followed suit two years later.

students also gain lower level degrees outcomes than white students (Stevenson 2012; HEFCE 2014; Mountford-Zimdars et al 2015).

33. **Institutional research and evaluation**. Institutional evaluative practice currently varies and it was a key objective of our research to design common instruments for use across the whole sector. There is some evidence that financial support is highly valued and essential for some student groups in certain contexts: "[from] institutional findings it appears that there is a sizeable minority of students that feel that financial support does impact on their decision to enter higher education and in choice of destination" (Nursaw Associates 2015, p.4) even while this is not reflected in national findings. Similarly, institutional evaluations "show that students in receipt of financial support report that it has enabled them to stay on course and that they consider withdrawing less than their peers" (ibid, p.4). Internal research carried out at Sheffield Hallam University and similar work at University of the West of England found that financial support enabled recipients to devote more time to their studies because they did not have to take on as much paid work during the academic year. This can have a tangible (if not always statistically significant) effect on retention and success rates, especially among poorer and (particularly) mature students who may also have caring responsibilities. This supports the findings of Moreau and Leathwood, (2006a and b) and Harrison, Baxter and Hatt (2007). Stevenson's research (Stevenson and Clegg, 2011 a and b) also found (negative) gender-specific implications for post-graduation employability for those students working part-time during their studies. Research on student parents also show that this group often experience acute financial issues and that financial support, in the form of, for example, loans, bursaries or subsidised childcare, can have a positive impact on their retention and wider experiences (Moreau & Kerner, 2012, 2015; NUS, 2009), with similar patterns identified for other groups of student carers (NUS, 2013).

2. Methods and methodology

2.1 Phase One: Designing a statistical model

34. This first phase of the research focused on the management of administrative data and the design and testing of a statistical model. The statistical model was designed by a research team working across five partner institutions: Sheffield Hallam University; the University of the West of England; Oxford University; King's College, London; and the University of Bedfordshire. During the summer of 2015 this model was tested using administrative data from all five institutions for students starting in academic years 2009-10 and 2012-13.

2.2 Underpinning epistemology

35. The overarching research question for this project was: *Do financial bursaries for financially disadvantaged students ameliorate their educational disadvantage relative to other students?* There is an additional implied question of whether bursaries improve student outcomes relative to what they would have been without the bursary, but this cannot be directly examined as the research team is unable to manipulate the bursary allocation process to provide a full counterfactual analysis. Full experimental design is indeed unusual in this type of educational research, and other strategies like matching bursary holders with those who just miss out on bursaries rather than their most affluent peers are one way to overcoming some of the inherent methodological limitations.

36. From previous research in the field, there is a reasonable assumption that students from lower income backgrounds participate in higher education at a relative disadvantage, compared to more affluent students. They are, for example, more likely to need to take on part-time work to support their living costs, limiting time for study. They are less likely to be able to afford books, equipment and materials to support their study and participation in extra-curricular opportunities. There may be other indirect forms of disadvantage too. For example, restricted accommodation options could increase travel times or limit access to the wider university community.

37. Therefore, from a policy perspective, the primary role of bursaries is to enable students from low income households to participate in higher education on a broadly equal basis with their more affluent peers. It is <u>not</u> to attempt to provide an advantage to the extent that students with bursaries have significantly better outcomes than their peers. This is an important point with respect to understanding the basis of analysis which underpins this project and the resulting statistical model.

38. A second important point is that students allotted bursaries may have advantages relative to other students, as well as the disadvantages due to financial circumstances. For example, it might be hypothesised that such students have higher intrinsic motivation or resilience due to the barriers which they have overcome in order to participate. They may also have been targeted by school, university or other programmes intended to improve their preparedness for higher education. As such, bursaries may also act as a proxy for a set of experiences, attitudes or behaviours that are not derived from the financial component of the bursary in any way. This constitutes a confounding factor within any statistical analysis.

39. The nature of the work dictates that the research question has to be explored retrospectively. As a result, the project team has built a statistical model using *binary logistic regression* within a *quasi-experimental design*, where bursary holders comprise an experimental group and other students comprise a comparator group. Clearly the latter cannot be a control group in the formal sense, as the allocation of bursaries is not randomised. In particular, the approach taken has focused on a comparator group deemed in each

institutional context to be marginally less financially disadvantaged than the bursary group. This is explained in more detail below.

40. This model therefore enables the outcomes of the bursary group to be compared with those students who might be expected to have more positive outcomes, based on the hypothesis outlined above. It was anticipated that one of three scenarios would emerge:

I. *The bursary group has significantly better outcomes than the comparator group.* This would be consistent with a strong positive impact from the bursaries, although there remains a possibility that there is a factor outside of the regression model which provides relative advantage to the most disadvantaged students, as discussed above.

II. *The bursary group has equivalent outcomes to the comparator group – i.e. no significant difference.* Bursaries are awarded to compensate for the perceived educational disadvantage derived from the financial disadvantage of the students. This result would be consistent with a positive effect of bursaries in ameliorating pre-existing disadvantage. Alternatively, it could be construed as evidence that the founding premise (that low income students have significantly poorer outcomes) is fallacious. It is not possible for analysis to distinguish between these options in the absence of low income students without bursaries.

III. *The bursary group has significantly worse outcomes than the comparator group.* While this would appear to suggest that bursaries do not have a positive impact on outcomes (as it is unlikely that they have an actively negative effect), it is important to stress that there is no direct counterfactual within the analysis. In other words, the outcomes for bursary holders could have been worse still without the bursary. In this instance, the bursary would be providing a protective role, but not sufficient to overcome the underlying disadvantage for the group. Perhaps more importantly, this type of result would strongly suggest that household income is an important predictor for student outcomes which may or may not then be ameliorated by bursaries.

41. As such, it is important that the interpretation of the results in this report is nuanced and critical. In the absence of a true control group, formal inference of causality between bursaries and differences in outcomes is impossible. Nevertheless, in broad terms, a significant positive difference in outcomes should be interpreted as a strong evidence for the effectiveness of bursaries, and evidence that financial support can 'close the gap' between recipients and their peers.

42. However, this should not be seen as a specific criterion for demonstrating effectiveness. A result showing no significant difference between the bursary comparator groups can also be interpreted as a successful amelioration of educational disadvantage, with students from the lowest income households achieving on an equal basis to those in relative advantage. Indeed, even a negative relationship between bursaries and outcomes should not necessarily be interpreted as evidence of ineffectiveness. Rather, these results could

point to the depth or breadth of the disadvantage experienced by these students – i.e. that the bursary awarded is insufficient, rather than ineffectual.

43. Three other epistemological principles were followed within the design of the research:

- Firstly, interpretability of the results was prioritised at the cost of some precision through, for example, the conversion of continuous variables to categorical ones (e.g. age and entry tariff).

- Secondly, precision is also traded off against inter-institutional comparability, such that the model attempts to explore a sample that is broadly similar in its composition and avoids instances where there are differences in institutional practice. For example, some institutions only awarded bursaries after the 1st December census date, while other made them available from arrival, so only students persisting past the census date in their first year have been analysed to provide uniformity and comparability between the institutional samples.

- Thirdly, operationalisability for institutions was also prioritised. This was manifest in the use of ready-defined variables routinely processed by institutions and by the selection of an analytical technique that can be performed with common statistical software and by individuals with limited statistical training. For example, a multi-level modelling approach was considered to take account of within-institution clustering, but this was rejected as the technique is relatively advanced and likely to be beyond the capabilities of some institutions. Analysis has purposively been undertaken using SPSS v20, a readily-available package.

44. As a final epistemological point, it is important to contextualise bursaries within a complex social space. The sums of money available to most students are modest and only comprise a small proportion of their overall income (typically around 10 percent in post-1992 institutions and 20 percent in pre-1992 institutions), while some students on tapered bursary schemes may receive very small amounts – indeed, bursaries of £50 or less have been ignored within the analysis. The impact of bursaries needs, therefore, to be viewed within this context; bursaries are unlikely to be life-changing (at least at the economic margins) and there are many mediating and confounding variables influencing an individual student's educational outcomes, many of which are unobservable or unmeasurable in the context of this study. Since costs of living are dependent on location, the same amount of financial support will have varying degrees of impact on the financial situation of students; a connection we were not able to take account of in this project.

3. Model development process

45. The research team were able to draw on a working statistical model developed previously by researchers at the University of the West of England (UWE). The model described and reported herein was strongly based on this initial work, albeit with a wider dataset, longer timeframes and a more robust categorisation process.

46. The model development process within this project began by bringing together the data management teams at each of the five partner institutions. An early decision was taken to primarily base the model on data routinely produced to meet institutions' reporting process to HESA. This had the advantages of reducing analyst time and working with variables which had existing definitional consensus, although the project has revealed a number of instances where the HESA data was being prepared or interpreted in different ways between institutions. This will be avoided by institutions using the accompanying Technical Workbook. In addition to the HESA-led data, data were also integrated from Student Finance England (SFE) and from institutions' own student records data. The latter related to bursary allocations, home postcode (and various derived variables – e.g. POLAR quintile), degree outcomes and National Student Survey results. The use of academic engagement metrics was quickly rejected on the basis of concerns about availability, comparability and validity. Previous work at UWE suggested that these had little relationship to bursaries, so this is not seen as a major limitation of the research.

47. Given the time constraints within this project, it was agreed that a single data capture exercise would be undertaken by the five institutional data management teams, with scope only for minor amendments and corrections. As such, the model presented herein was effectively fixed early within the project and the primary task has been to marshal the disparate data into a single framework that could be analysed.

48. As with all regression models, there is an assumption that all relevant explanatory variables are included. The research team believes that it has captured all that are readily available from institutions, although there may be others that have not been considered to date. Also, it is important to reflect on the point made above that there may be individual social or psychological factors that have a strong relationship with outcomes, but which are not (and probably cannot) be captured by institutions.

3.1. Household income and bursary allocation

49. A key piece of data for this project is the student's Household Income (HI) as calculated by SFE. This formed the basis of bursary allocation in most instances (see below). It also provides a reasonably valid proxy for financial disadvantage as experienced by students, although there are many individual situations (e.g. non-contribution by parents or unearned wealth) that can confound this. The HI may be less valid for mature students whose own household is used and where income may be a less useful measure of disadvantage (e.g. in the context of savings or redundancy payments). For these reasons, it is important that HI is problematised and interpreted cautiously.

50. Furthermore, it is not mandatory for students to provide information to SFE to permit the HI calculation unless the student wishes to apply for means-tested student support – e.g. student grant or the upper element of the maintenance loan. The data coverage of HI is therefore far from complete, with between a quarter and a half of students in each of the five partner institutions lacking

this data. It is also possible for student records to lack this data if students refuse permission for SFE to share their data with individual institutions. In terms of the data available to institutions, it is not possible to distinguish between these two scenarios (i.e. non-provision and refusal for sharing). However, exploratory data analysis on the five institutions' datasets provided strong evidence that students lacking HI data were generally at the upper end of relative advantage on non-financial measures (e.g. from POLAR quintile 5 or with A Levels), so it appears reasonable to conclude that the numbers of students refusing data sharing are low and that students lacking HI are most commonly drawn from affluent homes as their income is significantly above the threshold for means-tested financial support. This assumption is clearly challengeable, but further analysis was beyond the resources available to the project.

51. Within the model, therefore, those students missing HI data were placed into a separate category for analysis along with those students with HI figures that were above the threshold for means-tested support.

52. In all five of the institutions represented in the research team, bursaries were allocated on the basis of HI to some extent. Typically there was a threshold below which bursaries were available and either (a) all students received one, or (b) there were further criteria (e.g. disability, care history) that were used to prioritise within the low income group. Therefore, in the first instance, bursary holders were compared to those with a slightly higher income than the threshold for eligibility. In the second instance, bursary holders could be compared both to those with a slightly higher HI and also to those with a similar HI that were not deemed priorities (for bursaries) through the secondary criteria. The threshold for bursary eligibility differed between institutions and between years, so separate analyses were required for each institution. Furthermore, across the five institutions, there were examples of bursaries that were both flat-rate and tapered, adding to the complexity further. Indeed, even among those institutions with tapered systems, some ran positively (i.e. lower income students receiving more bursary) and some negatively.

53. In addition, some institutions provided bursaries to students outside of the HI financial means-test – e.g. those entering from an Access to Higher Education course or partnership school – which were nevertheless awarded in the context of disadvantage and under the aegis of the Access Agreement. These were treated as a separate group within the statistical model as they spanned low and middle income groups, as well as those for whom HI data was absent.

54. As a result, the bursary and comparator groups were generally coded in the following format:

    1. Low income bursary students (*key 'experimental' group*)
    2. (Low income students without bursary – where additional criteria were used to prioritise below institutional bursary threshold)
    3. (Students with non-means tested bursaries – where awarded)

4. Mid income students without bursary, where mid income was defined as an HI between the institutional bursary threshold and the national upper threshold for means-tested student support (*primary 'comparator' group*)
5. High income students and those missing HI data (*secondary 'comparator' group*)

55. In the three post-1992 institutions, the bursary thresholds were sufficiently low that it was possible to split the fourth group into two smaller groups to improve the granularity of the analysis. Where available, the second group was used as an additional 'comparator' group and the third group as an additional 'experimental' group.

56. Using this coding approach does mean that some of the precision within the HI data is lost, but this was considered to be an appropriate compromise to provide a more readily interpretable analysis. Alternative coding approaches were explored, but none provided substantively different results.

3.2 Datasets

57. Two cohorts were selected for analysis to allow for the exploration of different outcome measures: those entering in 2009 and those entering in 2012.

58. The dataset comprised the following:

- Full-time UK undergraduate status
- English domiciled – to avoid issues around conflicting student support systems in other UK jurisdictions
- First degree students (i.e. not sub-degree students [including Foundation degrees] and not those pursuing an additional degree)
- HEFCE-funded – to exclude NHS-funded students with different student support arrangements who are often not eligible for bursaries
- On Year 1 of their programme – to exclude foundation year students and students transferring into second/third year of their programme
- Did not leave prior to 1st December in their first year – as some institutions only provide bursaries to students persisting after this date
- Did not leave due to completing their degree – to exclude foundation degree students transferring into a 'top-up' programme and similar
- Were not 'withdrawn' due to death or serious illness

59. There are still some minor unresolved issues with defining the dataset across the five partner institutions, discussed below.

3.3 Outcome measures

60. Following discussions within the team and with OFFA, the research team settled on four dichotomous outcome measures within the statistical models:

- *Retention into second year of study* (2012 cohort): this was based on whether a student appeared within the HESA return for the year following their year of entry. While broadly based on the performance indicator published by HESA, this measure differs in that institutions do not have reliable data on students transferring institutions; these are coded as

having withdrawn in this analysis, which is accurate from an institutional perspective. Several definitional and data management differences have emerged between institutions.

- *Completion of degree within five years* (2009 cohort): this was based on whether a student had been classed as completing their studies according to the HESA definition within five years of their year of entry. Five years was chosen for two reasons; firstly, it accommodates four year degrees, and, secondly, it allows for a reasonable amount of false starts, repeated years and suspension of studies. A small proportion of students were still enrolled at this point and were classified as 'not completing' for this analysis; this was necessary as the original data specification did not provide a reliable way of distinguishing this group between institutions. Students receiving an interim sub-degree award were included as 'completing', although they might more appropriately have been coded as 'not completing' in retrospect.

- *Attainment of 'good' degree* (2009 cohort): two separate definitions were used for this variable: (i) obtaining a first class degree, and (ii) obtaining a first class or upper second class degree. A small minority of degrees not leading to a standard classification were coded as 'missing' for the basis of this analysis, as were students receiving an interim sub-degree award.

- *The DLHE 'successful outcome' metric – in graduate level work or further study six months after graduation* (2009 cohort): Although this is seen as somewhat problematic in terms of validity, it has an established sector-wide currency in terms of assessing employability. Needless to say, this measure was only available for those students completing within five years, while a proportion of students within the DLHE sample were coded as missing if they had chosen not to enter the labour market (e.g. raising a family or travelling). The remainder were coded as either having a positive or negative outcome.

3.4 Control variables

61. After various discussions within the research team, 14 control variables were agreed for entry into the model as outlined below:

- Entry qualifications
- Academic subject
- Sex
- Disability
- Ethnicity
- Age on entry
- Accommodation type
- Industry year
- Study abroad year
- HE participation rate of home area
- Distance from home to HEI
- Programme size

- Partnership or Franchise course
- NSS rating

62. In addition, a dichotomous dummy variable for the achievement of a first class or upper second class degree was added as a control variable for the analysis of graduate employment outcomes. Full list of variables and detail can be found in Appendix 1.

3.5 Implementation issues: data categorisation and analysis

63. There were a number of issues that required resolution - partly during the piloting phase with a further five institutions in Phase Two - and these are addressed in the Technical Workbook accompanying this report.

- Different approaches were taken by institutions to account for the partial coverage of NSS data – e.g. for new or small programmes. A unified approach would be required, probably by using the institutional mean or multiple imputation to replace missing values.

- The categorisation of entry qualifications needs more focused attention given changes to the UCAS tariff and a broadening of qualifications that institutions (particularly post-1992 institutions) are willing to accept.

- As noted above, institutions are using very different approaches to defining retention at the micro level, leading to withdrawal rates that are substantially different (both higher and lower) to those published through HESA. While this is primarily an issue of what metric the institution wishes to use to understand its student body, this only has implications for institutions wishing to engage in comparative consolidated analysis.

- Additional outcome measures may be needed for institutions that have very low withdrawal/non-completion rates or very high rates of achieving good degrees and graduate employment. As is generally the case with regression models, significant differences become more difficult to evidence and interpret when the outcome measure is very high/low.

- It is important to remember that any relationship between HI and outcome variables may not be linear. There is the potential for a fallacious 'common sense' assumption that students from ever more affluent backgrounds are more likely to achieve highly due to the material support that they or their families are able to employ. However, it may be that this only holds up to a certain point where motivational factors rather than financial ones become more relevant in determining the behaviour of higher income groups. In order to overcome this, HI has been converted into categorical data within the model.

3.6 Implementation issues: organisational

64. In discussion with OFFA the research team identified and secured agreement from five other pilot institutions to test the statistical model in the same way (i.e. using 2009-10 and 2012-13 data). As noted above, Phase Two enabled the research team to test the model in a wider, more representative range of

institution types and reduce the association of the model with the five partner institutions leading the research. Phase Two pilot institutions were specifically selected to broaden the range of institutional contexts, taking into consideration several potential key variables that may impact on the type of financial support packages offered and their likelihood to persist in higher education: characteristics of student body (e.g. according to institutional mission); geography (e.g. rural isolation may impact students living large distances from their institution); regional variations; institutions with high levels of ethnic diversity; market competition (e.g. the London effect with large numbers of alternative providers).

3.7 Phase One Summary

65. Phase One of the project successfully developed and implemented a working statistical model for assessing the impact of student bursaries. This was achieved using data that are (in most cases) readily-available within institutions and a statistical technique that is easily implemented using common desktop software. The ease of adoption is likely to be influenced by the existing data management infrastructure within institutions and their capacity for academically-led and critical statistical analysis.

3.8 HESA data collection services

66. It became apparent through the project that some institutions' data management systems were not well-suited to generating the cohort-based longitudinal data needed for analysis of student outcomes over time; rather, they are configured to provide annual 'snapshots' as required by HESA and other agencies.

67. HESA is well-placed to provide longitudinal data derived from the historic institutional snapshots. This will lessen the load on institutions, provide more robust datasets and help to eliminate some of the definitional issues outlined above. HESA would thus provide data to institutions, who would link data they alone hold (most importantly the HI and bursary data) and then undertake the analysis. This approach offers strong potential for improving the take-up and validity of the analytical framework.

68. Finally, the issues of epistemology raised towards the start of this report remain paramount. Without a clear framework for understanding the results generated by the model, there is a risk of making faulty inferences about the impact (or not) of bursaries (see further discussion in the Technical Workbook. Specifically, expecting bursaries to make students from low income households experience significantly stronger outcomes than relatively advantaged students is a very high (and probably unrealistic) bar for proof of effectiveness.

69. Essentially it will be up to institutions that use the tools developed in the project to decide on their own definition of effectiveness, and this is likely to vary between sub-cohorts. Where multiple bursary / scholarship schemes are in use, the tools may - over time - help institutions more effectively target available financial support. The nature of inferential statistics is such that institutions will be well-advised to examine at least two sequential years of

data in order to examine the stability of findings over time and to reduce the risk of acting on ‘false positives/negatives’.

4. Phase Two Data collection tools

70. Phase Two of the research also included development of a set of survey and interview tools that will enable institutions to gauge the effectiveness of their specific financial support packages, adding more fine grained analysis of how individual recipients use and value support offered as part of access agreement expenditure. As with the statistical model described above, these tools were designed to be recommended for sector-wide use in order to develop a longitudinal understanding of the value of financial support. Potentially, such analyses could be combined by groups of institutions that wish to produce a comparative understanding of the impact of institutional financial support on student success (e.g. for benchmarking purposes).

4.1 Survey of financial support recipients

Purpose and design

71. The purpose of the survey of financial support recipients across the five partner institutions was to enable institutions to gauge the perceived effectiveness of their specific financial support packages, adding more fine grained analysis of how individual recipients use and value support offered as part of access agreement expenditure. While the first iteration envisaged a survey of all students in all years to identify variations in responses from those that did and did not receive financial support, this approach was amended after advice from the project Advisory Group that more useable data could be gleaned retrospectively (i.e. what the financial support was actually used for rather than what students might hypothetically use it for).

72. This change of focus restricted the pool of respondents to financial support recipients in years 2, 3 and 4 of degree study; first year students would not have had time to reflect on the impact of the support on their studies and lifestyles. As with the statistical model, those on longer degree programmes, such as part-time students and those studying medicine, were treated as out-of-scope for this project.

73. The focus of the questions was to initially ask recipients to identify for themselves how much of their available income in the immediate past academic year (i.e. 2014/15) was derived from institutional financial support; this was done by asking them to respond to a list of possible sources of income. These were in two categories: personal sources (e.g. family, savings, earnings or money borrowed commercially), and other 'official' sources (e.g. maintenance grants; maintenance fees; childcare grants; Disabled Students Allowance, Local Authority grants for care leavers, other discretionary grants etc).

74. The next set of questions were about income from paid work in the immediate past academic year (not counting work placements that were part of course requirements); how many hours worked; term-time and non-term time; and reasons for undertaking this paid work (a 'tick-all that apply' question).

75. Then followed questions about respondents' financial support, starting with their eligibility (did they know they were going to be eligible? did they know how much they would receive?) then how much they received, followed by the keystone question *How important do you think the bursary or scholarship has been for your ability to financially continue with your studies?* This was gauged using an importance scale. After this respondents were again presented with a 'tick all that apply' for the question about *Which of the following costs would you most likely have had to avoid you didn't receive financial support from the university/college?*

76. The final question addressed the potential role of financial support in helping respondents feel able to belong among and participate with their peers. This used a Likert scale of five points along an agree / disagree spectrum focused on the contribution financial support made to their ability to: *afford to participate along with my fellow students; be able to concentrate on my studies without worrying about finances; be able to balance commitments such as work, study and family relationships; feel part of the university community; feel less anxious than I would have felt otherwise; be included on social and study trips; and feel more satisfied with their life as a student*. The full survey text can be found in Appendix 2.

4.2 Methodology

77. The design of the survey was intended to build on the student data management capabilities drawn on for the statistical model. This enabled institutions to create a valuable resource in the form of demographic and course-specific data on all financial support recipients. The research team used the Bristol Online Survey (BOS) tool which has a facility to link student ID with survey responses. This simplifies data collection in two ways: firstly by not having to ask respondents for demographic and course-specific information; secondly, by offering them a unique URL linked to their student records data so they can immediately respond without having to even log into their student accounts.

78. This enables institutions to keep the survey short and makes it more easily accessed by mobile devices, including smartphones. Also, because of the direct link back to already-held student data, this method minimises data cleaning required to deal with potential conflicts between what students reported and what is known, e.g. the size of their bursaries, whether they were also in receipt of maintenance loans or grants etc. Two institutions added their own bespoke questions and again this was easily done by each of the four remaining partner institutions and the two pre-pilots creating their own version of the project 'template' of the survey in the form of a BOS .JSON extension. To these were added the institution-specific additional questions and student ID (including email address) as a 'hidden' question.

79. The link to the data record also enables more sophisticated analysis. Assuming large enough numbers, cross-tabulation analysis can be carried out into variables in the survey (e.g. 'How important do you think the bursary or scholarship has been for your ability to financially continue with your studies?';

'How much time (on average) did you spend during academic year 2014/15 on paid work (in term time only)?'; 'What where your reasons for undertaking paid work?'; 'Which … activities would you most likely have had to do avoid or do less of if you didn't receive financial support from the university/college?'.

80. Response frequencies can also be analysed by institutions in relation to the main variables in the student record, e.g. Bursary type and value; RHI; Entry requirements; JACS code; Sex; Disability; Age; Ethnicity; Distance from home; Area Disadvantage (POLAR 3) etc to provide a more sophisticated understanding of how recipients use and value institutions' financial support packages.

4.3 Discussion

81. The development of a survey of financial support recipients took place in the summer and autumn of 2015, with an early version of the survey pre-piloted at two institutions during November and December 2015. In the event the survey was administered by partnership institutions early in 2016, which meant that it had to fit around the various institutional arrangements for the National Student Survey (which is designed for final year students but which is also often 'trialled' with second years as well) and other institutional surveys.

82. One of the five partners (King's College, London) declined to participate because the timing and purpose of the survey conflicted with its own surveys. Another institution was unable to secure ethical clearance until after the Easter break. As with the testing of the statistical model, the one-off *ad hoc* nature of our requirements for a research project suffered from the lack of being an annualised 'statutory requirement' (such as a HESA, OFFA or HEFCE reporting requirement) so these issues should not impact on future iterations which would in any case be tied to OFFA requirements.

83. We would recommend administering the survey during November-December to capture students' perspectives as soon as possible after the year they received the support and to avoid institutional and national surveys such as the National Student Survey, which is usually administered at the beginning of the second semester.

84. Some collated survey responses were presented for discussion at the June 2016 Advisory Group meeting to illustrate the usefulness and relevance of the questions (summarised below). Following this meeting OFFA commissioned some additional cognitive testing of the survey which will be carried out in Autumn 2016. Changes to the survey will be made in time for the instrument to be recommended for use in access agreement guidance for 2017-18 (published in March 2017).

85. Institutions would have to consider the robustness of this kind of survey instrument, especially in regard to response rates and the potential effects of self-selection bias, prior to making any general inferences from the data. For example, institutions may need to consider incentivising respondents (to encourage representative samples), weighting the responses before drawing significant conclusions and limiting claims based on the data.

4.4 Survey - summary indicative findings

86. We received 679 responses from the four institutions involved in this part of the project. 45% were Y2 students; 30% Y3 and 23% Y4.

87. 65% had undertaken paid work during the previous academic year (2014-15). When asked how many hours they worked, 65% reported working more than 8 hours per week; 21% between 5 and 8 hours; an 15% worked up to 4 hours per week.

88. When asked to state reasons for undertaking paid work, 'to pay for essential living costs (rent, fuel bills etc)' was the most often cited (by 63%), followed by 'to have more comfortable life while studying' (55%), 'to enable you to do other things outside of university life (e.g. travel, have hobbies etc) (53%)', 'to help pay the costs of books, study materials, field trips etc' (44%), 'to gain employment experience in your field of study' (23%) 'to save for a specific purpose (e.g. a holiday or a car) (22%)' and 'to avoid student debt (if you have any debt)' chosen by 13%. Respondents could tick as many as applied.

89. When asked about the importance of paid work to their ability to financially continue at University 26% selected 'Very Important' and another 17% chose 'Important'. However, for a further 20% it was 'Not at all important'.

90. Just over half - 53% - reported that they knew they were eligible for institutional financial support prior to starting their course. 30% were not aware and 16% unsure.

91. However, only 27% were aware of the amount of financial support they would receive, with 59% not aware and 14% unsure.

92. When asked about how respondents rated the importance of their financial support to their ability to financially continue their studies, 67% reported it was 'Very important' and another 18% 'Important'. Only 2% rated financial support 'Not at all important'.

93. When presented with a list of aspects of their student lives financial support helped them to do, the most commonly cited was: 'afford to participate along with my fellow students' (51% strongly agree and 36% agree) followed by 'concentrate on my studies without worrying about finances' (67% and 23%); 'balance commitments such as work, study and family relationships' (46% and 34%); 'feel less anxious than I would have felt otherwise' (57% and 31%) and 'feel more satisfied with my life as a student' (57% and 31%).

94. There was more ambiguity about one aspect of student lives. The variable: helping them to 'feel part of the university community', while attracting strong agreement/agreement by 34% and 28%, also recorded 26% taking the middle position (neither agree nor disagree) and another 12% disagreeing/strongly disagreeing (combined).

95. When bursary size and whether respondents undertook paid work were cross-tabulated, there was a predictably inverse relationship: over 50% of those who received between £500 and £1000 did so, while only 27% of those on

between £1001 and £1500 did so and only 23% of those in receipt of £4,000 or more did so.

96. A similar relationship was found when bursary size and numbers of hours worked were cross-tabulated: of those on the lowest bursary ranges (£500-1500) 63% worked 8 hours or more per week. Among those receiving between £2001 and £3000 only 25% reported working more than 8 hours a week.

97. See Appendix 4 for survey frequency tables

4.5 Interview questions

98. The purpose of the suite of interview questions (see Appendix 3) is to enable institutions to evaluate the effectiveness of their financial support packages with either representative samples of their cohorts or indeed particular sub-cohorts of recipients. This may be particularly useful if, for example, survey findings indicate that some student types are reporting less satisfaction with a particular package or if the statistical model tracking indicates that a certain package is less likely to close the outcomes gap between bursary recipients and the comparator group(s) outlined above.

99. The questions are also designed to delve deeper into the workings of financial support packages; for example, to explore the optimum time of year for payments to be made, the distribution across the degree programme, or the mixture of benefits. For example the questions could be used to explore whether recipients prefer discount vouchers (and if so, for what purpose), cash bursaries or a combination.

100. These questions are adapted from those successfully used by Sheffield Hallam University during 2012-13 and 2013-14 as part of its redesign of support. They cover the following thematic areas:

- knowledge about eligibility
- mode of payment
- awareness of other schemes at other institutions
- role of the financial support in choice of institution
- what the money has been used for
- importance in decision to remain at university
- mixture of elements of the scheme
- preferred timing of payments - in-year and throughout the degree programme

101. These questions typically took around 45 minutes to cover. Respondents could be identified via the final question of the survey (are you willing to be contacted for further exploration of these questions?) or institutions could identify cohorts from student data records.

5. Conclusions and Recommendations

102. We were tasked with designing research tools that could enable institutions to decide whether their financial support can ameliorate their educational disadvantage relative to other student groups. The statistical model we have developed is robust and fit for this purpose, within the limitations outlined above. Its robustness resides in the use of easily available data sources that institutions have to collect for their own purposes and for reporting to HESA, HEFCE and OFFA. Of the 15 control variables, twelve use the same fields that institutions use for HESA returns. Household Income data is known at the point of acceptance and institutions apply their own bursary data. However it should be reiterated that the statistical model as presented here would not be sophisticated enough to indicate failings of any specific financial support package.

103. The model cannot prescribe a solution or be used to explore hypotheses about the optimum value of a bursary for specific student cohorts; but it can show whether there is a decline in relative outcomes for the bursary cohort. It will be up to each institution to decide how best to use the model and the other tools - the survey and interview questions which can be used to explore some potential solutions if samples are sufficiently representative. Evaluative tools are only as good as the intentions of those that use them.

104. HESA has agreed to provide data to institutions, who would link data they alone hold (most importantly the HI and bursary data) and then undertake the analysis. This approach offers strong potential for improving the take-up and validity of the analytical framework.

105. A key feature of the survey tool is that it is designed to link with student data records: each bursary holder receives a unique version of the online survey with demographic (e.g. age, gender, household income level) and institutional data (e.g. course, level etc) already included as 'hidden fields'; this shortens the survey and significantly reduces the chance of errors. So while the statistical model was tested using historical data, once new recipients are 'flagged' in student data systems they can be surveyed about the perceived impact of financial support as they are progressing though the student journey. Potentially institutions can compare perceptions with actual evidence of outcome effectiveness in real time.

Recommendations

106. Based on the research outlined and discussed in this report we make the following recommendations to OFFA and the wider sector:

> OFFA requires all institutions to use robust evaluative methods to explore the effectiveness of institutional financials support. OFFA believes these tools to be robust and therefore recommends their use when referencing the relative performance outcomes of their financial support students in access agreement reporting.

HESA should provide data to institutions, who would link data they alone hold (most importantly the HI and bursary data) and then undertake the analysis.

OFFA should recommend that the optimal time for institutions to operationalise statistical model data analysis should be between January and May of each year.

OFFA should recommend to institutions that the optimal time to administer the survey of financial support recipients is during November and December. This is the ideal time to capture the recollections of students who will be asked about their use of financial support in the previous academic year. The timing will also avoid a clash with the National Student Survey which takes place in the second semester. We recommend that institutions using the interview questions also do this during the autumn window of opportunity.

It will be up to institutions that use the tools developed in the project to decide on their own definition of effectiveness. Where multiple bursary / scholarship schemes are in use, the tools may - over time - help institutions more effectively target available financial support. The nature of inferential statistics is such that institutions will be well-advised to examine at least two sequential years of data in order to examine the stability of findings over time and to reduce the risk of acting on 'false positives/negatives'.

Institutions should be recommended to run the statistical model analysis and report on outcomes performance of financial support recipients annually, as part of their access agreement reporting.

Institutions should be encouraged to use the survey and interview tools as and when necessary, and always when referencing the relative performance outcomes of their financial support students in access agreement reporting.

Institutions should be encouraged to take the opportunity to compare analysis findings with other institutions / groups of institutions in order to broaden our sectoral understanding of the types and levels of support that are most beneficial in specific contexts.

OFFA should commission occasional comparative analyses of outcomes published in access agreements in order to build an ongoing sectoral overview of the effectiveness of institutional financial support.

6. Bibliography

BIS (2011) *Students at the heart of the system*, TSO, July 2011

BIS (2014) *National strategy for access and student success in higher education*, OFFA and HEFCE, April 2014

BIS (2016) *Success as a knowledge economy: Teaching Excellence, Social Mobility and Student Choice*, White Paper, Cmnd 9258, May 2016

Bowes, L., Moreton, R., Thomas, L., Porter, A., Sheen, J., Birkin, G. (2014) *National Scholarship Programme - Year 3. Report to HEFCE by CFE Research and Edge Hill University*. Leicester: CFE Research.

Brown, R. & Scott, P. (2009) *The Role of the Market in Higher Education*. London: Higher Education Policy Institute.

Callender, C and Wilkinson, D (2013) Student perceptions of the impact of bursaries and institutional aid on their higher education choices and the implications for the National Scholarship in England, *Journal of Social Policy*, 42(2), 281-308.

Davies, P., Hughes, A., Slack, K., Mangan J. and Oakleigh Consulting Limited (2010) *Understanding the information needs of users of public information about higher education*, Report to HEFCE.

Diamond, A., Bowes, L., Michael, A., Thomas, L., Porter, A. & Sheen, J. (2012) *Formative Evaluation of the National Scholarship Programme*. Report to HEFCE by CFE and the Widening Participation Research Centre, Edge Hill University, Leicester: CFE

Ertl, H., Carasso, H., Holmes, C. (2013): *Are degrees worth higher fees? Perceptions of potential undergraduates on the financial benefits of entering higher education*. SKOPE Research Paper, No. 117 (June 2013).

Esson, J.& Ertl, H. (2014): No point worrying? Potential undergraduates, study related debt, and the financial allure of Higher Education, *Studies in Higher Education* (DOI:10.1080/03075079.2014.968542).

Gonzalez-Arnal, S. & M. Kilkey (2009) Contextualizing Rationality: Mature student carers and higher education in England, *Feminist Economics* 15: 1, 85-111.

HEFCE (2014) *Differences in degree outcomes: Key Findings*. HEFCE Issues Paper March 2014/03

Harrison, N, Baxter, A and Hatt, S (2007). From opportunity to OFFA: The implementation of discretionary bursaries and their impact on student finance, academic success and institutional attachment, *Journal of Access Policy and Practice*, 5(1), 3-21.

Harrison, N and Hatt S (2012). Expensive and failing? The role of student bursaries in widening participation and fair access in England, *Studies in Higher Education*, 37(6), 695-721.

McCaig, C and Adnett, N (2009) English Universities, Additional Fee Income and Access Agreements: their impact on Widening Participation and Fair Access, *British Journal of Education Studies*, Vol. 57, No.1 March 2009 pp.18-36.

McCaig, C (2014) The retreat from Widening Participation? The National Scholarship Programme and new Access Agreements in English higher education, *Studies in Higher Education*. Published online 9th June 2014 http://www.tandfonline.com/doi/full/10.1080/03075079.2014.916672

Moreau, M.P. & Kerner, C. (2015) Care in academia: An exploration of student parents' experiences, *British Journal of Sociology of Education*, 36(2): 215-233.

Moreau, M.P. (2014) *Towards the family-friendly university? Research evidence on student parents and implications for higher education policies,* Stimulus Paper Series, Leadership Foundation for Higher Education, online access: http://www.lfhe.ac.uk/en/research-resources/commissioned-research/leading-equality-and-diversity/index.cfm#child-friendly .

Moreau, M.P. & Leathwood, C. (2006a) Graduates' employment and the discourse of employability: A critical analysis, *Journal of Education and Work,* 19(4): 305-324.

Moreau, M.P. & Leathwood, C. (2006b) Balancing paid work and studies: Working (-class) students in higher education, *Studies in Higher Education*, 31(1): 23-42.

Moreau, M.P. & Kerner, C. (2012) *Supporting student parents in higher education: A policy perspective*. London: Nuffield Foundation, available online: http://www.nuffieldfoundation.org/sites/default/files/files/Moreau%20Student%20Parent%20report%20-%20Full%20report%20October%202012.pdf

Morris, K and Mcvitty, D. (2012) *Never too late to learn. Mature students in higher education.* Million+

Mountford-Zimdars, A. Sabri, D. Moore, J. Sanders, J. Jones, S. and Higham, L (2015) Causes of difference in degree outcomes. *Report to HEFCE by King's College London, ARC Network and The University of Manchester*, July 2015.

Nursaw Associates (2015) *What do we know about the impact of financial support on access and student success?* OFFA, April 2015

NUS (2009) *Meet the parents: The experience of students with children in further and higher education. London*: National Union of Students.

NUS (2013) NUS/Unipol Accommodation Costs Survey

OFFA (2010) *Have bursaries influenced choices between universities?* OFFA, September 2010/06 Research Report

OFFA (2014) *An Interim report: Do bursaries have an effect on retention rates?* OFFA March 2014/2 Research Report.

OFFA (2015) *Strategic Plan 2015-2020*, Bristol: OFFA 2015/02

Rose-Adams, J. and Hewitt, L. (2012). 'What retention' means to me: the position of the adult learner in student retention*. Widening Participation and Lifelong Learning,* 14 pp. 146–164.

Stevenson, J. and Clegg, S. (2011a) Who cares? Gender dynamics in the valuing of extracurricular activities in higher education*, Gender and Education*, 24 (1) p. 41-55

Stevenson, J. (2012), *Black and minority ethnic student degree retention and attainment.* York: Higher Education Academy

Stevenson, J. and Clegg, S. (2011b) Possible selves: students orientating themselves towards the future through extracurricular activity, *British Educational Research Journal*, 37 (2), pp. 231-246.

Appendix 1. Dichotomous Variables used in the statistical model

Variable and associated HESA fields (as relevant)	Definitional notes
Entry qualifications EP_USE.QUALENT3 XTARIFF	A nine-way categorical variable was constructed from the two HESA data fields: • Top quartile A Levels / International Baccalaureate tariff • Upper middle quartile A Levels / International Baccalaureate tariff • Lower middle quartile A Levels / International Baccalaureate tariff • Bottom quartile A Levels / International Baccalaureate tariff • A Level / International Baccalaureate – tariff unknown • Access to Higher Education course • Other Level 3 vocational qualifications (BTEC/EDEXCEL etc.) • Previous sub-degree HE qualification • Other qualifications / experience The tariff data was only felt to be acceptably valid for A Levels and International Baccalaureates, so by taking quartiles it was possible to create meaningful categories while preserving most of the detail. Tariff data for vocational qualifications was not felt to be acceptably valid, especially where combined with A Levels. Needless to say, the quartile boundaries varied substantially between institutions. Note: these data were seen as particularly problematic by institutions in terms of their reliability, especially where students presented a mixture of 'academic' and 'vocational' qualifications. Nevertheless, they were the most readily available and a vital inclusion in the model due to the explanatory power of entry qualifications in student outcomes.
Academic subject JACS1 JACS2 JACS3 JACS1_FTE JACS2_FTE JACS3_FTE	A 20-way categorical variable was constructed from the six HESA data fields. Nineteen of these represent the JACS2 categories, with an additional 'Combined' category (see below); the new 'I' code for computer sciences was not used as it was not uniformly implemented across the five institutions. An algorithm was used to allocate students with multiple JACS codes to a single category: • Over 50% in any one JACS code = that code • 50% each in two identical JACS codes = that code • 50% each in two different JACS codes = 'combined' code • 33% each across three identical JACS codes = that code • 33% each across two different JACS codes = code with two entries • 33% each across three different JACS codes = 'combined' code In other words, students were allocated to the dominant JACS code where one existed, or to a combined code where the codes were balanced equally.
Sex	Effectively a binary variable – a third option was available in 2012, but no students were entered against it in the five datasets.

Student.SEXID	
Disability Student.DISABLE Instance.DISALL	A three-way categorical variable was constructed from the two HESA data fields: • Not known to be disabled • Disabled, and in receipt of a Disabled Students Allowance (DSA) • Disabled, and not in receipt of a DSA A full problematisation of this variable is beyond the scope of this project, but the third category tended to include higher proportions of students with unseen disabilities and long-term health conditions. There may be some scope to explore explanatory power of particular disabilities, but, in general, the numbers within each category are too small to permit reliable inference.
Ethnicity Student.ETHNIC	A 10-way categorical variable was constructed from the HESA data field to ensure sufficient numbers in each grouping for analysis: • White • Black Caribbean • Black African • Indian • Pakistani • Bangladeshi • Chinese • Mixed ethnicity • Other ethnicity • Unknown ethnicity
Age on entry Student.BRTHDATE	Derived from the HESA data field and then categorised into a four-way variable: • Under 21 • 21 to 24 • 25 to 29 • 30 and over
Accommodation type Student.TTACCOM	Directly following the HESA data field categories. The research team feel that this particular variable is unreliable, but it provides the best available measure of a student's housing type in their first year and at least acts as proxy to identify those students (a) living with their parents, and (b) maintaining their own home while in HE, which may indicate caring responsibilities.
Industry year Instance.LOCSDY	Derived dichotomous variable (1 = Yes) as to whether student had a year in industry or on placement within their degree.
Study abroad year Instance.LOCSDY	Derived dichotomous variable (1 = Yes) as to whether student had a year studying abroad within their degree.
HE participation rate of home area EP_USE.POSTCODE	Categorised into ordinal POLAR3 quintiles using home postcode, with 1 = lowest youth HE participation rate.

Distance from home to HEI EP_USE.POSTCODE	Continuous variable, calculated in miles from student's home (pre-HE) postcode to main institutional campus, by converting postcodes to grid co-ordinates and using Pythagoras' theorem.
Programme size	Continuous variable comprising the total number of students on the student's programme, not just those within the dataset – i.e. including international students and non-English UK students.
Partnership or franchise course	Dichotomous variable (1 = Yes) as to whether student's programme is delivered by another organisation – i.e. a franchised course.
NSS rating	Continuous variable comprising overall National Student Survey satisfaction rating as a proxy for programme quality. For convenience (as this was time-consuming to operationalise), the 2014 figure was used throughout with the university average used for missing values (e.g. for small or new programmes). The source data was linked via the KIS course code.

Appendix 2 Draft survey (Bristol Online Text version)

p. 1 Introduction

Understanding the impact of institutional financial support on student success

The University is keen to find out how students support themselves financially during their studies. We also want to know how useful and helpful its bursary and scholarship packages (sometimes including discount vouchers for housing, transport etc) are in supporting students from lower income backgrounds who may otherwise have to leave the course or do less well in their studies. We want your views on what you used this financial support for in the last academic year (ie. 2014/15) even if you are not in receipt of any form of scholarship or bursary this year.

Please note that participation in the survey implies your consent to participate in the study. Your responses will be linked to the student administrative data record the university has for you. However, the survey data will be completely anonymised at the reporting stage and your student data remains confidential and subject to data protection protocols. Due to the anonymous nature of the survey it will not be possible to withdraw answers at a later stage.

p. 2 About you:

1 Which year of study are you currently in?

Y2

Y3

Y4

Other

2 Did you receive financial support from your university last year? (2014/15)

Yes

No

Don't know

p. 3 Your financial situation

3 From which personal sources did you fund your participation in higher education last year (2014/15)? (please tick all that apply)

money from family or friends that you don't have to repay

money from family or friends that you do have to repay

personal savings

earnings from work during term time

earnings from work during holidays

personal trust fund or income from an investment

Page break

4 From which other sources did you fund your participation in higher education last year (2014/15)? (please tick all that apply)

t

statutory financial support (maintenance grants; maintenance fees; childcare grants; Disabled Students Allowance etc)

statutory maintenance loan (from Student Finance England)

statutory tuition fee loan (from Student Finance England)

non-statutory grants from Local Authority

university Hardship or Access funds

bursary or scholarships from your university/college

grants or scholarships from your employer or other organisation

5 Did you undertake any paid work during 2014/15? (not counting work placements that were part of your course requirement)

Yes

No

a If YES was this work (tick one only)

Term time

Non term time

Both

b How much time (on average) did you spend during academic year 2014/15 on paid work (in term time only)?

Less than one hour per week

1 - 4 hours per week

5 - 8 hours per week

More than 8 hours per week

c Did you work throughout the vacation periods? (e.g. Christmas, Easter)

Yes

No

d What where your reasons for undertaking paid work?: (Please select all that apply)

to help pay the costs of books, study materials, field trips etc

to pay for essential living costs (rent, fuel bills etc)

to have more comfortable life while studying

to save for a specific purpose (e.g. a holiday or a car)

to support family (e.g. your children)

to gain employment experience in your field of study

to avoid student debt (if you have any debt)

to enable you to do other things outside of university life (e.g. travel, have hobbies etc)

Other (please specify)

i If you selected Other, please specify:

e How important is having a paid job in helping you to financially continue at University? Please indicate using the following scale.

Not at all important 1 2 3 4 5 Very important

p. 4 About your bursary or scholarship.

6 Prior to starting your course, did you know you would be eligible for financial support?

Yes

No

Unsure

7 Prior to starting your course, did you know how much financial support you would receive?

Yes

No

Unsure

8 How much university/college financial support did you receive in 2014/15? (please treat any discounts as financial support, e.g. discount vouchers for accommodation). Please select one only

£500-£1000

£1001-£1500

£1501-£2000

£2001-£3000

£3001-£4000

over £4000

9 How important do you think the bursary or scholarship has been for your ability to financially continue with your studies? Please indicate using the following scale

Not at all important 1 2 3 4 5 Very important

a Which of the following costs would you most likely have had to avoid you didn't receive financial support from the university/college? (please tick all those that apply)

pay for books, study materials, field trips etc

pay for essential living costs (rent, fuel bills etc)

enjoy a more comfortable life while studying

save for a specific purpose (e.g. a holiday or a car)

support family (e.g. your children)

gain employment experience in your field of study

avoid student debt (if you have any debt)

do other things outside of university life (e.g. travel, have hobbies etc)

Other (please specify)

i If you selected Other, please specify:

10 Please tell us how much you agree with the following statements: Receiving financial support helps me to….

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
afford to participate along with my fellow students					
be able to concentrate on my studies without worrying about finances					
be able to balance commitments such as work, study and family relationships					
feel part of the university community					
feel less anxious than I would have felt otherwise					
be included on social and study trips					
feel more satisfied with my life as a student					

a Please add other items you may not be able to do without the financial support and indicate importance on a 1-5 scale

11 Thank you for your help in completing this survey. The university is also interested in exploring some of these issues in more detail, e.g. through interviews or focus groups. If you would prefer not to be contacted about this please tick the box

Appendix 3: Interview questions

The purpose of the interview is to elaborate on students. awareness and perception of the value of scholarships and bursaries. In order to avoid unnecessary questions, please ensure that you have already captured the following information from the survey: demographic data; details of any financial support package and other sources of financial support; participation in paid work; awareness and importance of financial support obtained etc.

(NB: If you intend to use this information for anything other than internal purposes you will need to seek ethical approval and follow your institution's ethical protocols. You should therefore also ask all attendees to complete a participant consent form and hand out the project information sheet - includes details of University contact for further information. You may be required to do this even if it is only to be used for internal evaluation purposes - your institution will advise)

(PI sheet should contain the following statement - can be augmented with specific institutional info)

The University is keen to find out how students support themselves financially during their studies. We also want to know how useful and helpful its bursary and scholarship packages (sometimes including discount vouchers for housing, transport etc) are in supporting students who may otherwise have to leave the course or do less well in their studies. We want your views on what you used this financial support for in **the last academic year** (ie. XXXX-XX) even if you are not in receipt of any form of scholarship or bursary this year.

Purpose in red

Journey in to higher education (the past)

1. Can you tell me a little about how you made the decision to study this course at this particular higher education institution? I am interested in knowing who helped you to make the decision to apply, and where and what to study? (Exploring the overall role and importance of family, school, friends, outreach team, university open days etc.)
2. Thinking about the costs of higher education, what if anything did you find out about costs or finances before you applied? (Who if anyone discussed this with you? How did you find out other information about cost and finances? What did you feel or think about the overall cost of getting a degree once you found out about the costs of studying?) (Exploring how the costs of HE are perceived including value of a degree in to the future)
3. Did anyone talk to you about additional funds for studying, such as a bursary or scholarship before you applied? (Or did you find this information out in other ways? Or was it perhaps something you knew nothing about? Had you even heard of the terms bursary or scholarship? Did you think you might be eligible?) (Exploring awareness of additional support available)
4. (If the student knew about financial support before they enrolled): how important was the financial support available to you at this university in

helping you make the decision to come here? Do you think you would have still come if that financial support hadn't been offered? (Exploring the extent to which additional financial support played a pivotal role in decision making)

OR

5. (If the student did not know about financial support before they enrolled): how did you find out you were eligible for additional financial support? What were your first thoughts when you found out? do you know why you are eligible? and how does that make you feel? (Exploring how unexpected additional financial support is perceived)

Being in higher education (the present)

1. How did it feel when you first got your additional financial support? Did you tell others about it or keep it to yourself - and why? (Exploring feelings about being the recipient of additional financial support)
2. Have you spent it/used it on anything particular? (if so what and why did you make that choice? Would you prefer it if your bursary/scholarship was in the form of cash (if support is in kind)/ was support in kind rather than cash? Why is that?) (Exploring the value of financial support in more detail)
3. What difference, if any, has having the additional financial support made to you? (What would be different - maybe socially or academically or in other ways - if you didn't have this support? Has it made the difference between staying or, perhaps, thinking of leaving? What has the specific importance been - if anything?) (Exploring the impact on financial support in detail)

Being in higher education (the future)

1. Will you use your financial support differently next year? (if so why would that be? Is there are chance you won't be eligible? if so why not and what do you think the implications would be for you if that were to happen?) (Further reflections on the impact of financial support)
2. Do you think your own university has got its financial support right? (Why do you think that? What might be done differently? What advice would you to give to a university thinking of developing a financial support package based on your own experiences?) (Informing institutional practice)

Is there anything else you would like to tell me about the impact of financial support on you?

Thank you for your time

Appendix 4 Survey Findings (frequencies)

Q1 Which year of study are you currently in?	Frequency	Valid Percent
Y2	304	44.8
Y3	199	29.4
Y4	153	22.6
Other	22	3.2
Total	678	100.0

Q2 Did you receive financial support from your university last year? (2014/15)	Frequency	Valid Percent
Yes	594	87.5
No	62	9.1
Don't know	23	3.4
Total	679	100.0

Q3 Personal sources to fund HE (tick as many as apply)	N Responses	Percent	% of Cases
earnings from work during holidays	314	27.4%	53.6%
personal savings	278	24.3%	47.4%
money from family or friends that you don't have to repay	266	23.2%	45.4%
earnings from work during term time	186	16.2%	31.7%
money from family or friends that you do have to repay	89	7.8%	15.2%
personal trust fund or income from an investment	13	1.1%	2.2%
Total	1146	100.0%	195.6%

Q4 Other sources to fund HE (tick as many as apply)	N Responses	Percent	% of Cases
statutory tuition fee loan (from Student Finance England)	576	26.3%	86.2%
statutory maintenance loan (from Student Finance England)	535	24.4%	80.1%
bursary or scholarships from your university/college	517	23.6%	77.4%
statutory financial support (maintenance grants; maintenance fees; childcare grants; Disabled Students Allowance etc)	466	21.3%	69.8%
university Hardship or Access funds	54	2.5%	8.1%
grants or scholarships from your employer or other organisation	30	1.4%	4.5%

non-statutory grants from Local Authority	13	.6%	1.9%
Total	2191	100.0%	328.0%

Q5 Did you undertake any paid work during 2014/15? (not counting workplacements that were part of your course requirement)		
	Frequency	Valid Percent
Yes	437	64.7
No	238	35.3
Total	675	100

Q5a If YES was this work (tick one only)		
	Frequency	Valid Percent
Term time	37	8.3
Non term time	248	55.4
Both	163	36.4
Total	448	100.0

Q5b How much time (on average) did you spend during academic year 2014/15 on paid work (in term time only)?	Frequency	Valid Percent
1-4 hrs	60	25.8
5-8 hrs	45	19.3
8+ hrs	128	54.9
Total	233	100.0

Q5c Did you work throughout the vacation periods? (e.g. Christmas, Easter)	Frequency	Valid Percent
Yes	353	64.2
No	197	35.8
Total	550	100.0

Q5d Reasons for doing paid work (tick as many as apply)	N Responses	Percent	% of Cases
to pay for essential living costs (rent, fuel bills etc)	297	22.0%	63.3%
to have more comfortable life while studying	259	19.2%	55.2%
to enable you to do other things outside of university life (e.g.	249	18.4%	53.1%

travel, have hobbies etc)			
to help pay the costs of books, study materials, field trips etc	208	15.4%	44.3%
to gain employment experience in your field of study	107	7.9%	22.8%
to save for a specific purpose (e.g. a holiday or a car)	103	7.6%	22.0%
to avoid student debt (if you have any debt)	62	4.6%	13.2%
Other (please specify)	33	2.4%	7.0%
to support family (e.g. your children)	32	2.4%	6.8%
Total	1350	100.0%	287.8%

Q5e How important is having a paid job in helping you to financially continue at University?	Frequency	Valid Percent
Not at all important	114	19.7
2	97	16.7
3	118	20.3
4	100	17.2
Very important	151	26.0
Total	580	100.0

Financial Support

Q6 Prior to starting your course, did you know you would be eligible for financial support?	Frequency	Valid Percent
Yes	359	53.3
No	206	30.6
Unsure	109	16.2
Total	674	100.0

Q7 Prior to starting your course, did you know how much financial support you would receive?	Frequency	Valid Percent
Yes	182	27.1
No	394	58.7
Unsure	95	14.2
Total	671	100.0

Q8 How much university/college financial support did you receive in 2014/15?	Frequency	Valid Percent
£500-£1000	195	30.7
£1001-£1500	78	12.3

£1501-£2000	78	12.3
£2001-£3000	74	11.6
£3001-£4000	92	14.5
over £4000	119	18.7
Total	636	100.0

Q9 How important do you think the bursary or scholarship has been for your ability to financially continue with your studies?

	1 Not at all important	2	3	4	5 Very important	Total
N	14	28	53	123	452	670
%	2.1%	4.2%	7.9%	18.4%	67.5%	

Q9a Activities that would likely need to cut back without financial support (tick as many as apply)	N Responses	Percent	% of Cases
Socialising with friends (e.g. eating out, cinema, theatre,	545	19.2%	82.8%
Leisure (e.g. holidays for self and/or family)	412	14.5%	62.6%
Travelling between home and University when desired	398	14.0%	60.5%
Family treats (e.g. birthday presents)	369	13.0%	56.1%
Buying course books and materials	365	12.9%	55.5%
Buying social resources (e.g. phone and broadband contract)	252	8.9%	38.3%
Participation in a sport or other hobby	241	8.5%	36.6%
Participation in a University or Students' Union club or so	208	7.3%	31.6%
Other	47	1.7%	7.1%
Total	2837	100.0%	431.2%

Q10.1 Receiving financial support helps me to afford to participate along with my fellow students	Frequency	Valid Percent
Strongly agree	344	51.3
Agree	241	36.0
Neither agree nor disagree	58	8.7
Disagree	19	2.8
Strongly disagree	8	1.2
Total	670	100.0

Q10.2 Receiving financial support helps me to be able to concentrate on my studies without worrying about finances	Frequency	Valid Percent
Strongly agree	451	67.3
Agree	157	23.4
Neither agree nor disagree	34	5.1
Disagree	16	2.4
Strongly disagree	12	1.8
Total	670	100.0

Q10.3 Receiving financial support helps me to be able to balance commitments such as work, study and family relationships	Frequency	Valid Percent
Strongly agree	311	46.4
Agree	228	34.0
Neither agree nor disagree	92	13.7
Disagree	33	4.9
Strongly disagree	6	.9
Total	670	100.0

Q10.4 Receiving financial support helps me to feel part of the university community	Frequency	Valid Percent
Strongly agree	230	34.4
Agree	186	27.8
Neither agree nor disagree	171	25.6
Disagree	60	9.0
Strongly disagree	21	3.1
Total	668	100.0

Q10.5 Receiving financial support helps me to feel less anxious than I would have felt otherwise	Frequency	Valid Percent
Strongly agree	383	57.2
Agree	205	30.6
Neither agree nor disagree	49	7.3
Disagree	19	2.8
Strongly disagree	13	1.9
Total	669	100.0

Q10.6 Receiving financial support helps me to be included on social and study trips	Frequency	Valid Percent
Strongly agree	284	42.6

Agree	187	28.0
Neither agree nor disagree	130	19.5
Disagree	44	6.6
Strongly disagree	22	3.3
Total	667	100.0

Q10.7 Receiving financial support helps me to feel more satisfied with my life as a student	Frequency	Valid Percent
Strongly agree	380	56.6
Agree	208	31.0
Neither agree nor disagree	54	8.0
Disagree	18	2.7
Strongly disagree	11	1.6
Total	671	100.0

Q10 (aggregated) - Receiving financial support helps me to...		Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Total N
1. afford to participate along with my fellow students	Frequency	344	241	58	19	8	670
	Valid %	51.3	36.0	8.7	2.8	1.2	
2. concentrate on my studies without worrying about finances	Frequency	451	157	34	16	12	670
	Valid %	67.3	23.4	5.1	2.4	1.8	
3. balance commitments such as work, study and family relationships	Frequency	311	228	92	33	6	670
	Valid %	46.4	34.0	13.7	4.9	.9	
4. feel part of the university community	Frequency	230	186	171	60	21	668
	Valid %	34.4	27.8	25.6	9.0	3.1	
5. feel less anxious than I would have felt otherwise	Frequency	383	205	49	19	13	669
	Valid %	57.2	30.6	7.3	2.8	1.9	
6. be included on social and study trips	Frequency	284	187	130	44	22	667
	Valid %	42.6	28.0	19.5	6.6	3.3	
7. feel more satisfied with my life as a student	Frequency	380	208	54	18	11	671
	Valid %	56.6	31.0	8.0	2.7	1.6	

Cross-tabs - bursary amount (Q8) by employment (Q5)

Did you undertake any paid work during 2014/15?	£500-£1000	£1001-£1500	£1501-£2000	£2001-£3000	£3001-£4000	over £4000	Total
Yes	68.2%	66.7%	69.2%	60.3%	56.5%	68.1%	65.5%
No	31.8%	33.3%	30.8%	39.7%	43.5%	31.9%	34.5%
N	195	78	78	73	92	119	635

Cross-tabs - bursary amount (Q8) by mode of employment (Q5a)

If YES was this work (tick one only)	£500-£1000	£1001-£1500	£1501-£2000	£2001-£3000	£3001-£4000	over £4000	Total
Term time	10.5%	11.5%	10.9%	4.3%	1.9%	7.1%	8.3%
Non term time	39.1%	61.5%	65.5%	61.7%	66.0%	70.2%	57.3%
Both	50.4%	26.9%	23.6%	34.0%	32.1%	22.6%	34.4%
N	133	52	55	47	53	84	424

Cross-tabs - bursary amount (Q8) by mode of employment (Q5b)

How much time (on average) did you spend during academic year 2014/15 on paid work (in term time only)?	£500-£1000	£1001-£1500	£1501-£2000	£2001-£3000	£3001-£4000	over £4000	Total
1-4 hrs	20.0%	22.7%	27.3%	50.0%	40.0%	23.5%	26.3%
5-8 hrs	16.8%	13.6%	22.7%	25.0%	20.0%	26.5%	19.7%
8+ hrs	63.2%	63.6%	50.0%	25.0%	40.0%	50.0%	54.0%
N	95	22	22	20	20	34	213