Sheffield Hallam University

Exploring the role of financial support in supporting marginal students in English HE: methodological issues

MCCAIG, Colin <http://orcid.org/0000-0003-4364-5119>

Published version

Copyright and re-use policy

Exploring the role of financial support in supporting marginal students in English HE: methodological issues

Dr Colin McCaig

Sheffield Hallam University

Sheffield Hallam University

Outline

- Background of the wider project

- Dual purpose of the research

- Research questions

- Instruments and purpose

- Model - outcome measures and variables

Understanding the impact of financial support on student success: an institutional approach

Research commissioned by OFFA

2015-16

Bursary rationale

- Basis for the existence of bursaries is that financial disadvantage (i.e. HI) leads to educational disadvantage

- Bursaries therefore intended to ameliorate financial disadvantage to the point that poorest students compete on equal terms with richer students

Background to the project

- Access agreements: £408.7 million spent on financial support in 2017-18 *(2016-17: £399 million)*
- OFFA's and other system-wide research consistently shows no impact of financial support on decision to enter HE or choice of institution
- Also no system-wide evidence that financial support helps with retention and successful outcomes
- But institutional evidence suggests it does help retention and success ....

Sheffield Hallam University

Dual purpose of the research

- Firstly we all want to know whether financial support for students from non-traditional backgrounds *can* work. Comparing institutional datasets from multiple institutions can provide us with useful meta analysis.

- Secondly - and more importantly - we are designing tools for individual institutions to evaluate the ***effectiveness of their own support*** and to enable ongoing Access Agreement benchmarking.

Sheffield
Hallam
University

Key research questions

- Do financial bursaries for disadvantaged students improve their academic outcomes relative to other students? - do they level the playing field?

- Do bursaries improve student outcomes relative to what they would have been without the bursary?

Sheffield Hallam University

Methods and process

Five varied partner institutions

Institutional buy-in, high level sign-off and non-disclosure agreements

Statistical model development

- binary logistic regression
- outcome measures and variables
- identifying data and student financial support people
- establishing JISCmail for idea sharing and Oxford's VLE Weblearn for data sharing

Data analysis

Further piloting of the model 5 new institutions; Testing of the survey (four partner institutions)

Institutional buy-in and requirements

Expertise on:

- Household information data on all students

- Bursary/scholarships information for both 2009 and 2012 year cohorts

- Student data management system

- HESA reporting fields

- Outcomes data (e.g. NSS, DLHE)

Sheffield
Hallam
University

Methodological challenges we faced

- **Complexity**

  Identify common data fields that improve understanding of specific cohorts. Need to create a single dataset format that would work across all institutions, devise outcome measures and variables that are relevant to all institutions

- **Absence of a comparator group**

  Need to identify a control group of 'poor' students that don't receive financial support. A 'comparison' group was created with an HI in the income band just above that for bursary eligibility.

Sheffield
Hallam
University

Outputs

- A specification for the dataset and a recommended regression model
- A manual of practical advice about how to get the most from the institutional dataset

- An 'off-the-shelf' online questionnaire for recipients
- A set of generic qualitative interview questions to provide finer grain analysis

Sheffield Hallam University

Statistical model: approach

- Conceptualised as a quasi-experimental study – use of bursary and comparison groups

- Two cohorts - 2009 and 2012 starters

- Four dichotomous outcome measures

- 17 control variables + variable allocating students to groups based on HI and bursary

- Analysis - binary logistic regression

Household Income

- Student's Household Income as calculated by SFE
- Valid proxy for financial disadvantage and basis for bursary allocation
  - but ... not perfect (mature students; those with unearned wealth; savings; some Muslim students)
- Incomplete data (c90%) - not mandatory for students to provide information to SFE unless they are applying for means tested financial support

Sheffield
Hallam
University

Household Income

- So it omits those rich enough not to claim maintenance grant/loans or institutional financial support

- Students can refuse permission for institutions to use HI data (but few do this)

- Cannot separate the non-claimers from the non-sharers; we **assume** they are at higher income levels, but we don't know...

Banding

1. Bursary group (less than £25k RHI)

2. low income group (c10-20% above bursary group RHI level)

3. middle income group (median of all those above £25k RHI)

Outcome measures of the two cohorts

1. Retention into second year of study (2009 and 2012 cohorts)

2. Completion of degree within five years (2009 cohort)

3. Attainment of 'good' degree (2009)

4. The DLHE 'successful outcome' metric – in graduate level work or future study six months after graduation (2009 cohort)

Variables

- Bursary type(s)
- Residual Household Income (RHI)
- Entry quals
- Course aggregated (JACs)
- Course fine (KIS)
- Sex
- Disability
- Age on entry

- Ethnicity
- Area disadvantage POLAR 3
- Distance home to HEI
- Programme size
- Home domicile (fee status)
- Accommodation type
- Partnership / franchise course
- Placement / study abroad
- NSS rating

Reminder - hypotheses

When comparing bursary and comparator groups, three possible results:

1. No statistical difference: suggests bursary successful in levelling the playing field (if we assume poorer students will do worse)

2. Bursary group does significantly better: suggests bursary very successful (or other factors)

3. Bursary group does significantly worse: suggests bursary unsuccessful and/or insufficient

Findings

Outcome measure	Sheffield Hallam
Retention to second year	Significant positive difference both for means-tested bursary (relative to low and low-middle income groups) and bursary for students from partnership schools.
Completion within five years	Significant positive difference for partnership school bursary and approaching positive difference for means-tested bursary (relative to middle income group); positive relationship relative to low income group.
Achievement of a first class degree	No difference for either means-tested or partnership school bursaries – i.e. comparable outcomes to middle income group.
Achievement of a first or upper second class degree	No difference for either means-tested or partnership school bursaries – i.e. comparable outcomes to middle income group.
Positive graduate outcome	No difference for either means-tested or partnership school bursaries – i.e. comparable outcomes to middle income group.

Summary findings report **Closing the gap: understanding the impact of institutional financial support on student success**

- There is a risk of making faulty inferences about the impact (or not) of bursaries. 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.

- 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'.

Sheffield Hallam University

Conclusions

- The statistical model robust and fit for purpose. 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 control variables, fifteen 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 the statistical model not sophisticated enough to indicate failings of any specific financial support package.

- Can show whether there is a decline in relative outcomes for the bursary cohort as a whole.

- 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.

Sheffield Hallam University

(Draft) Recommendations

- Institutions should be recommended to run the statistical model analysis annually, as part of their access agreement reporting.

- Institutions should be encouraged to use the survey and interview tools as and when necessary to reference 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 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.

Sheffield
Hallam
University

Discussion

- How robust is the assumption that low income correlates to low degree outcomes?

- If bursary recipients outperform other groups of students, are they unfair?

- If institutions reduce expenditure on financial support, where should they use the resource instead?

Sheffield
Hallam
University

Appendix

Survey of FS recipients

- Y2, 3 and 4
- post-hoc -what did you use it for?
- Piloted in 3 institutions
- Run across 4 project institutions
- Designed in BOS - to be completed by smartphone, Tablet

Year of study

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

Paid work

Q5 Did you undertake any paid work during 2014/15? (not counting work placements 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	29	14.3
Non term time	43	21.2
Both	131	64.5
Total	203	100.0

Hours of paid work

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	27	14.8
5-8 hrs	38	20.8
8+ hrs	118	64.5
Total	183	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

Reasons for paid work

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. travel, have hobbies etc)	249	18.4%	53.1%
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%

Importance of paid work

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 - eligibility

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

Financial support - prior knowledge

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

Amount of financial support

Q8 How much university/college financial support did you receive in 2014/15?	Frequency	Valid Percent
£500-£1000	151	54.9
£1001-£1500	35	12.7
£1501-£2000	32	11.6
£2001-£3000	15	5.5
£3001-£4000	14	5.1
over £4000	28	10.2
Total	275	100.0

Importance of FS for continuation

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%	

Activities

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%

Belonging

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	N	344	241	58	19	8	670
	%	51.3	36.0	8.7	2.8	1.2	
2. concentrate on my studies without worrying about finances	N	451	157	34	16	12	670
	%	67.3	23.4	5.1	2.4	1.8	
3. balance commitments such as work, study and family relationships	N	311	228	92	33	6	670
	%	46.4	34.0	13.7	4.9	.9	
4. feel part of the university community	N	230	186	171	60	21	668
	%	34.4	27.8	25.6	9.0	3.1	
5. feel less anxious than I would have felt otherwise	N	383	205	49	19	13	669
	%	57.2	30.6	7.3	2.8	1.9	
6. be included on social and study trips	N	284	187	130	44	22	667
	%	42.6	28.0	19.5	6.6	3.3	
7. feel more satisfied with my life as a student	N	380	208	54	18	11	671
	%	56.6	31.0	8.0	2.7	1.6	

Cross-tabs - FS amount by employment/mode of employment

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-tab FS amount by hours of paid employment

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

Cross-tab importance of bursary by amount of paid work

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)?			
	1-4 hrs	5-8 hrs	8+ hrs	Total
Not at all important	3.3%	4.4%	3.2%	2.1%
2	0.0%	2.2%	3.2%	4.2%
3	11.7%	6.7%	6.3%	7.9%
4	16.7%	13.3%	11.9%	18.2%
Very important	68.3%	73.3%	75.4%	67.6%
N	60	45	126	231

Implementation issues

Transferability

- What are the main challenges the team have identified about the transferability of the survey and data tool across the sector?
- How best can these challenges be resolved?
- How can take up of the tool be encouraged?
- What are the options for institutions who want to collaborate to use the tools?
- What are the best ways of disseminating the findings of the research and the available tools and guidance?

Institutional burden

- What are the set up and running cost to institutions? (NB. It can be counted as part of their access agreement spend)
- What training and/or guidance will institutions need?
- Would it be viable to run regional workshops in the first few months to talk about the tools and explain how to set things up?
- What can OFFA do to support institutions to use the toolkit?