How vulnerable are you? Assessing the financial health of England's universities

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Abstract

The vagaries of market forces are presenting a financially challenging environment for the higher education sector in England. Intense competition is leaving those overly dependent on tuition fee income in an exposed position. Despite a strong narrative for the need to diversify funding in the available higher education literature, empirical studies examining the degree to which universities are financially diversified are sparse and lack contemporary relevance. This study is the first to produce a National Income Diversification Index for publicly-funded, generalist universities in England. In doing so, it develops a model for a more accurate financial assessment by disaggregating third-stream revenues from core income. The findings suggest established pre-1992 universities are more financially diversified and thus in keeping with modern portfolio theory, are less vulnerable to changes in their external environment. This paper calls for policymakers to include the level of income diversification in any measure of institutional financial health.

The challenge

Across much of the world, participation in higher education has soared, both in terms of total numbers and as a percentage of the cohort (Jenkins and Wolf 2016). In England, demand for higher education continues to increase overall, although part-time modes of study are seeing a decline. Student demand may be increasing overall, but so is the competition for their recruitment (Office for Students 2019).[1]

Unlike in many other jurisdictions, the undergraduate market in the UK is not one that competes on price as pricing is mandated by government and results in very little variation (Frank, Gowar, and Naef 2019). Instead, much of the competitive environment has been stimulated by a number of national reforms designed to encourage competition. As Taylor notes for the UK:

> Since 2010 the policy stance has been a drastic reduction in government funding, a strong shift toward being more self-reliant and funded primarily through fees paid by students and increased competition in the sector both throughmechanisms designedto engender competition for student recruitment and through deregulating and opening up the sector to new providers. (2013, 142)

Moreover, the Higher Education and Research Act 2017 introduced reforms making it even 'quicker and simpler for new providers to enter the market, with an expectation that greater competition may mean some providers will exit' (National Audit Office 2017, 5). As a result, there have been significant increases in higher education provision from new alternative providers (UUK 2014).

The government also lifted the cap on the number of students an institution could accept from 2015/16. The rationale was to allow popular providers to expand and therefore more young people to access higher education (House of Commons 2018). This has led to increasing competition among providers (Shaw 2016), at a time the target market has contracted. According to UCAS data, although the proportion of 18-year olds entering higher education in 2018 is at record levels (33%), there is a smaller pool of 18-year olds to draw from. This demographic dip means fewer 18-year olds are going to university than in 2017 (in England the figures are 14,600 less). The overall trend in the number of 18-year-olds has been steadily declining since 2009 and is expected to continue to decrease until 2021 (Best 2018). Except for the Netherlands and Luxembourg, the picture is similar in the rest of the European Union (EU), where the number of 18-year olds in the population has been declining since 2014 (HEFCE 2015). This suggests universities in England are competing for their share of a smaller pool of both home and EU undergraduate students.

Also, global opportunities are encouraging domestic students to study overseas (Shin and Harman 2009; Jenkins and Wolf 2016). Thus, for home institutions, there is increasing competition from international markets for outwardly mobile students (HEFCE 2018).

To compound these concerns, in December 2018 when the Office for National Statistics announced that student loans were to be reclassified as government spending, the sector raised concerns this would tempt ministers to cut tuition fees because it will look better for the national deficit (Jarvis 2018). Moreover, a report published by the Institute of Fiscal Studies (Britton et al. 2019) projects the likely cost to the government of student loans not being repaid at some £8.6bn per cohort; further fuelling concerns

that the government would seek to reduce the cost to the public purse. The report notes it is the post-1992 universities that will cost the government the most due to their undergraduate focus, the lower future wage potential of the types of subjects studied at these institutions, and the higher risk of non-completion (Felix and Kernohan 2019).

Each year, the regulator publishes a report on the financial health of the sector in England. In 2016 HEFCE commented that the 2014/15 financial results 'showed a sound financial position overall' but that this masked wide variation in individual institutional performance. HEFCE additionally commented that the forecast growth projections may be difficult to achieve in light of increased competition, the decline in 18-year-olds in England and uncertainties over the UK's withdrawal from the European Union (HEFCE 2016, 6). This message was repeated almost verbatim in HEFCE's 2017 and 2018 reports (HEFCE 2017, 2018). The most recent 2019 report from the now, Office for Students, entitled Financial Sustainability of Higher Education Providers in England, recounts the same causes for concern, however, is notable for its change of tone, this time proclaiming that the sector overall is only in 'reasonable health' as opposed to its prior 'sound position overall'.

This complex and competitive environment creates challenges for all institutions. It leads to increased volatility in student recruitment (UUK 2014; FSSG 2016; Office for Students 2019); thus, the income for universities are less predictable (Bolton 2019). However, as the latest report from the Office for Students acknowledges, some institutions are more exposed to the risks associated with this instability in tuition fee income than others. Particularly those for whom tuition fees comprise the majority of their income (Office for Students 2019). Higher dependency on income from tuition fees suggests greater vulnerability to changes in market fortune and the pressures of market competition (Marginson and Considine 2000). Martin and Samels (2013) define a financially distressed institution as one that is overly dependent on tuition fees or government funding i.e. their income portfolio is highly concentrated on a single source.

Strong get stronger

Some universities appear to be in a better position than others to compete for tuition fee income. When the cap on student numbers was lifted, there was a concern in the sector that the over-subscribed 'selective' universities would substantially increase their numbers (Jenkins and Wolf 2016). According to Frank, Gowar, and Naef (2019) analysis of HESA data, there has been a steady expansion in pre-1992 universities at the expense of the post-1992 institutions. The rise (and decline) is noticeable from 2014/15 which is when the cap on student numbers was first increased by 30,000 and then lifted altogether from 2015/16. From that point, universities have been able to recruit as many students as they choose.

The Russell Group and other pre-1992 universities appear to be leveraging the competitive advantage of their prestige. Wolf (2015, 67) points out that 'education is a positional good, in which your place relative to others is crucial, so students will seek out the most renowned institutional brands'. As Marginson argues, prospective students, their parents, and future employers rank a degree by the field of study and the institution at which it was studied; 'the acid test is that when faced by a choice between a prestigious university with a known indifference to undergraduate teaching, and a lesser institution offering better classroom support, nearly everyone opts for prestige' (2006, 3). In uncertain economic times, students are being more selective in their university choices and seeking the institutions that will best position them in the job market and thus enhance social mobility (Cattaneo et al. 2019).

The more prestigious universities can also attract higher proportions of international, higher-fee paying students (Jenkins and Wolf 2016). Universities have a strong incentive to attract students for which the fees are not set by the government and charge them as high as the market will bear (Marginson 2018). Jenkins and Wolf (2016) found that based on 2013/14 data, Russell group universities had on average more than £2,000 of additional teaching income per student, whereas the post-1992s had almost £1,500 less than the other pre-1992s. The margins on these higher fees are highly fungible and can be used for a variety of purposes, most commonly to cross-subsidise research, which in turn builds reputation, and so enables the charging of higher fees (Jenkins and Wolf 2016).

Citing Altbach (2002), Martin and Samels (2013) noted that open-markets for higher education can reinforce any inequality that exists in the system i.e. the strong get stronger. As the various reports from the regulators' highlight, there is marked variation in the financial performance of individual institutions. The Office for Students report on 2017/18 data shows high average tariff providers achieving a slight increase in surplus as a percentage of total income on their 2016/17 figure (to just over 4%), whereas medium and low average tariff providers show a sharp decline from 2016/17–2017/18 to below 2% and 1% respectively (Office for Students 2019).

In an article for The Guardian newspaper, Fazackerly (2018) contends that some universities may be pushed to the brink of insolvency as prestigious universities are hoovering up students who may have traditionally gone to less highly-ranked institutions:

> Competition has been cut-throat. There are institutions at the bottom who can't recruit enough students, so they drop their grades and let in students who can't cope with the course and will drop out after one or two years. It's just a slow death.

It seems the universities most dependent on income from student fees appear the least able to compete for them.

Mitigating risk

Whilst it is not an immediate solution, income diversification presents a strategy for universities to mitigate the risks associated with an overdependence on any one source of income (Webb 2015). An income portfolio reflecting a more balanced reliance between income from teaching, research, third-stream activity, public funding, and investments, is less vulnerable as all sources of income are not likely to be challenged at once (Besana and Esposito 2015).

To temper the above arguments for such a strategy, it is worth highlighting an important caveat to seeking diversified income, which is the need for universities to remain mindful of the importance of margin and likely return on each income source. In other words, do not diversify at any cost (Estermann and Pruvot 2011; Taylor 2013).

As Taylor (2013) contends, financial stability is crucially important for universities operating in this increasingly competitive environment. Whether a university's income portfolio is diversified or concentrated has been noted as an important factor in evaluating the financial health of an institution (Shattock 2010; Lucianelli and Citro 2017). In their study of publicly-funded universities in Australia, Irvine and Ryan (2019) find income diversity to be a strong predictor of financial viability. The Financial Sustainability Strategy Group (FSSG) in their 2016 briefing document Mind the Gap: Understanding the Financial Sustainability, also highlight income diversification as one of the factors influencing the financial sustainability of universities in the UK.

Universities UK published an annual Security Index (now published by HESA) which measured ratios of (i) historical surplus/deficit to total income, (ii) ratios of general funds to total expenditure and (iii) ratios of net liquid assets to total expenditure. Wellington (2007) expanded this index adding three new indicators, (iv) ratio of interest payable to total income, (v) ratio of expenditure on repairs and maintenance to total expenditure, and most pertinent to this study, (vi) the ratio of grants from HEFCE to total income. This last measure was to assess reliance on a single source of income as at the time, the concern was dependence on state funding/ability to generate nonstate funding. Note the HESA security index has since been updated to include the ratio of total long-term borrowings to total income. Analysing HESA data for 2004/05, Wellington found the top twenty institutions using the original UUK index to be comprised of six small, specialised colleges, six post-1992 universities, and five pre-1992 institutions. However, when using the expanded indicators, eleven of the top 20 positions were dominated by the pre-1992 universities. The author attributes this to lower levels of borrowing and less reliance on public-funding and raises concern at the large representation of post-1992 universities in the bottom 20 of the expanded index.

So how financially diversified are publiclyfunded universities?

Despite the strength of the narrative for the need for universities to diversify their income to reduce exposure to risk (Estermann and Pruvot 2014), studies measuring income diversification in higher education are sparse. Whereas in the non-profit management literature, Chikoto, Ling and Neely contend 'the topic of revenue diversification or its inverse, revenue concentration, has been and continues to be of keen interest to the study of nonprofit organizations' financial environments' (2016, 1428).

Notwithstanding their differences, both literatures reflect trust markets that are motivated by more idealistic goals than the traditional business sector (Webb 2015). The relevance to higher education can be exemplified by the similarities in the challenges facing the two sectors. Common themes include issues of vulnerability and reduced autonomy caused by overdependence on reducing government funding thus the need to seek multiple sources of income, balanced against concerns of distraction from core mission
(Mitchell 2014).

Measuring income diversification

In the higher education literature, it is noticeable that income diversification is seldom formally measured, nor a diversification index created such as those proposed in the non-profit literature (Chang and Tuckman 1994). Webb (2015) uses the HirschmanHerfindahl Index to measure levels of income diversification in a study of 814 private universities and colleges in the US. De Dominicis, Pérez, and FernándezZubieta (2011) measure the level of income diversification in 200 research-active universities across Europe utilising the Simpson index of diversity, which is a derivative of the Herfindahl-Hirschman Index (Kasperski and Holland 2013). However, although these studies are using established measures, the income portfolios are not representative nor disaggregated to reflect those of a generalist, publicly-funded institution such as is the focus of this study.

There have been other approaches adopted to assess the level of income diversification in higher education. Pre-dating Tuckman and Chang's (1991) use of the Herfindahl measure of diversification/concentration, Chabotar (1989) published a paper on the use of financial ratios to understand the financial condition of higher education institutions. The methodology included a ratio to measure the diversity of income sources by comparing the relationship between the main sources of revenue and the related expenditures (source of revenue / total expenditures). The focus on expenditures provides a useful angle as it accounts for the fact that some sources of income are restricted in how they can be spent, it does rely on being able to obtain information on which

expenditures used funds from which sources and does not appear to have been widely utilised. More recently, Irvine and Ryan (2019) used ratios of particular income categories to total income as one of the ratio indicators to assess the financial health of publicly-funded universities in Australia.

There is other evidence of attempts to quantify income diversification in higher education literature. Analysing data gathered in 2009 from European universities, Estermann and Pruvot (2011) present a visual description of proportions of total university income residing in each source for Universities. Their findings show that universities receive 73% of their income from direct public funding and only 9% from student contributions. This finding lacks contemporary relevance in the UK.

In conclusion, although in the non-profit literature the starting point for analysing the impacts of income diversification is to obtain an accurate measure of it, this does not appear to be the case in higher education. To the best of this researcher's knowledge, this is the first study to use an established measure of income diversification develop an index for publicly-funded universities on a national scale, thus providing insight for university leaders and policymakers. The accuracy of the measurement is enhanced by the disaggregation of non-core, third-stream income from traditional sources of funding described below.

The approach to measurement

The Hirschman-Herfindahl Index (HHI) is widely recognised as a common measure of income diversification in the non-profit literature (Carroll and Stater 2009; Chikoto, Ling, and Neely 2016; Searing 2018), and yet seemingly seldom applied in higher education research on the topic. The reliability and validity of the Hirschman-Herfindahl Index is exemplified by the foundational works of Tuckman and Chang (1991) and Chang and Tuckman (1994).

The index measures concentration and therefore its inverse diversification (Chikoto, Ling, and Neely 2016).

If all income is derived from just one source, then the index score = 1. As the number of sources of income increases, the index score reduces towards 0. The index score also declines the more equally the income is distributed across the income sources (Chang and Tuckman 1994).

In England, all publicly-funded universities have access to the same number of income sources, so the index score is primarily affected by how equal the proportions of income derived from each source are (therefore reducing dependence on any one source). Thus, a higher HHI score reflects a less diverse income portfolio (Searing 2018). A university with an HHI score of 0.23 is more diversified in terms of their income than a university with a score of 0.76.

The Hirschman-Herfindahl Index is defined as the sum of squares of the percentage share of each income stream out of total income. It is computed by the formula:

Level of income diversification =

$$ {}^{N}_{i=1} r_i / R^2, i = 1,...,n, \qquad (1) $$

where N = the number of income sources, r = income from the ith source, and R = the total income (revenue) from all sources (Chang and Tuckman 1994).

The focal population

The focal population for this study is all the publiclyfunded, non-specialist universities in England. Therefore, it does not include highly-specialised institutions such as theological colleges or musical conservatoires, nor those universities focused only on postgraduate study or via non-standard delivery such as distance learning. In common with Jenkins and Wolf (2016), the focus is on 'generalist' universities. This means each institution can draw from similar sources of income and market sizes; and so, have similar opportunities to develop a diversified income portfolio. Except for one newer institution (for whom complete 5-year financial data were not available due to changes in ownership structure), this focal population forms the sample for this study.

Data and analysis

The income diversification index for this study is calculated from six income categories that reflect the disaggregation of third-stream income, thus developing a new model to measure income diversification in the jurisdictions these data are available for (illustrated in Figure 1).

The Hirschman-Herfindahl calculation for this study is based on two sets of data submitted to HESA. Firstly, income data in the Finance Report (which reflects the university's annual statutory accounts) that categorises income under; tuition fees and contracts, funding body grants, research grants and contracts, other income, and income from

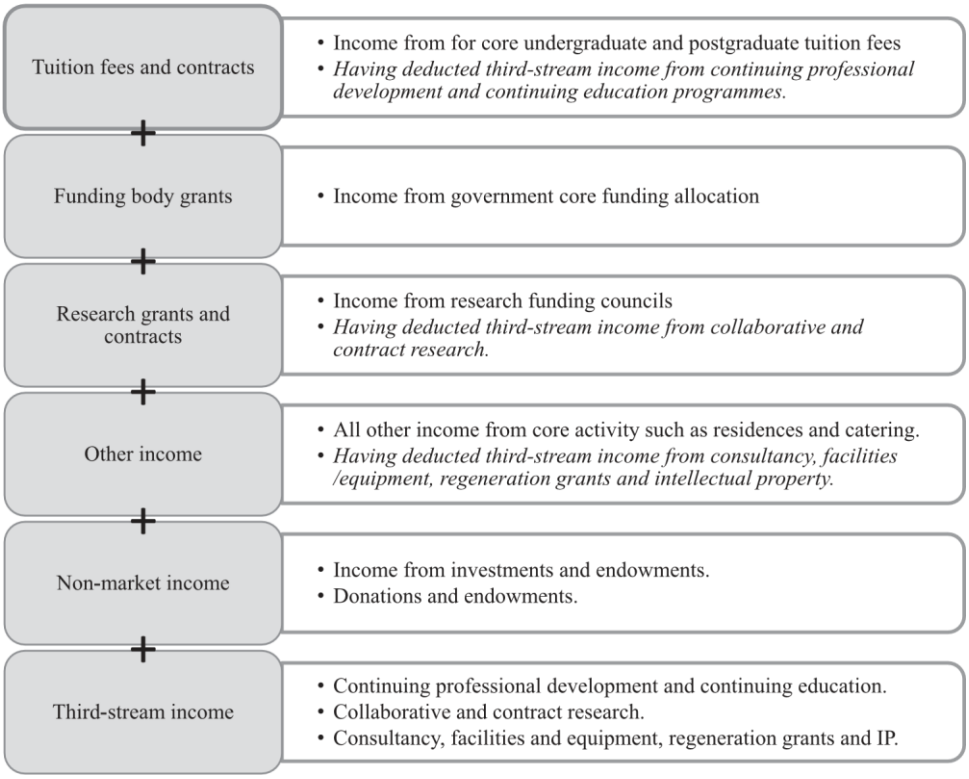

Figure 1. The six-income category model to measure income diversification.

investments and donations. And secondly, as third-stream income is 'hidden' within the Finance Report headings, this study draws from the annual mandatory Higher Education Business and Community Interaction (HE-BCI) survey that captures income from: collaborative and contract research, consultancy, facilities and equipment, continuing professional development and continuing education courses, regeneration and development, and intellectual property (Fuller and Pickernell 2018).

Building on the published HESA guidance (HESA 2018a) and (HESA 2018b), and confirmed as reasonable by HESA during several meetings and communications from October 2017 to May 2018. The six-income category model comprises the five standard university financial reporting categories extended by the disaggregation of third-stream income data to form a sixth category. The total of all annual income categories equals the total income for each institution published in HESA Finance Report Table 7 Head 8 each year.

The model is populated with 5-year averages of data obtained for 2012/13–2016/17 in the annual HESA finance reports 2013–2018, Table 7 and the HE-BCI reports of the same period, Tables 1a, 1b, 2 and 3.[2]

The results

Sample characteristics

As Table 1 illustrates, the majority of the 102 publiclyfunded, non-specialist universities in England were established after 1992. Of the 40 universities established before 1992 in England, 50% are members of the Russell Group.

Levels of income diversification in England's publicly-funded universities

Appendix A presents the full income diversification index for all publicly-funded, non-specialist universities in England reflecting 5-year averages to 2016/17. The index also details the proportions of income within each of the six income categories. To offer a general picture, Table 2 shows the average level of income diversification and portfolio mix across the sample.

Figure 2 illustrates that the distribution of levels of income diversification in universities in England is far from following a normal curve (indicated). The bimodal shape suggests there are two distinct groups

Table 1. Non-specialist, Publicly Funded Universities by Year of Establishment (N = 102).

Established	Number	Percent of sample
Pre-1992	40	39%
Post-1992	62	61%

Table 2. Average Level of Income Diversification for the Period (2012/13–2016/17).

HHI index	Core tuition	Core funding	Core research	Core other	Invest / donative	Thirdstream
0.42	59%	15%	4%	13%	1%	8%

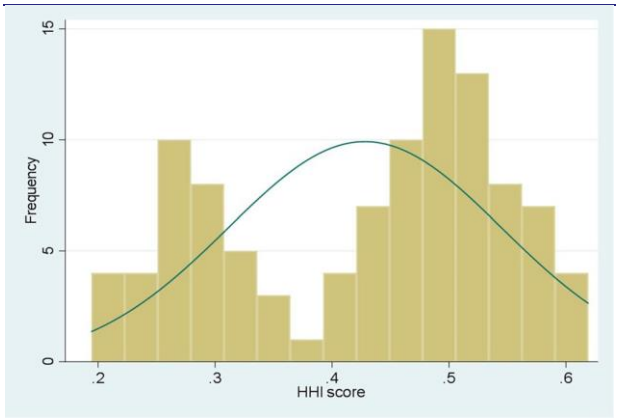

Figure 2. Distribution of HHI scores in publicly-funded universities in England (N = 102).

in the sample. Further analysis revealed pre-1992 universities comprise the group with the higher HHI scores, with post-1992 universities having the lower scores (but interestingly each group resembling close to a normal distribution).

To highlight an example, two universities' 5-year income portfolios are contrasted in Tables 3 and 4.

It is evident King's College London is less dependent on any one source of income and is more financially diversified than the University of Sunderland, who for 2016/17 was dependent on core tuition fees for 82% of its income.

The income diversification index scores in appendix A reflect the balance in the university's income portfolio i.e. the proportions of income attributable to the six income categories described previously. Whilst it is interesting to perhaps note those universities that generate the most additional income through investments, donations and third-stream activity (see Tables 5 and 6); it is worth remembering income diversification is about the equality of the proportions of income in each category. To achieve a fully diversified income portfolio i.e. an HHI index score of zero, would mean exactly 16.66% of income residing in each of the six income categories. So, although on average 21% of

Table 5. Top 10 Universities by Investments, Endowments and Donations.

University	Percentage
The University of Reading	10%
The University of Oxford	5%
London School of Economics	5%
The University of Surrey	5%
SOAS University of London	4%
The University of Cambridge	3%
Imperial College London	3%
University of Durham	2%
The University of Liverpool	2%
The University of Manchester	2%

Table 6. Top 10 Universities by 5-year Average of Income from Third-stream.

University	% Annual Percentage
Loughborough University	21%
The University of Southampton	20%
Newcastle University	19%
Anglia Ruskin University	19%
The University of Lancaster	19%
The University of Birmingham	18%

Imperial College London	18%
The University of Leicester	17%
The University of Oxford	17%
King's College London	17%

Loughborough's income is from third-stream activity, it does not necessarily follow their diversification score is high as they may still have the remaining income coming from only one or two sources.
To provide some further insight into the thirdstream income category, Figure 3 illustrates the proportion of third-stream income for 2016/17 attributable to particular third-stream activities or funding.

Conclusion

Extant research as supported by modern portfolio theory and resource dependence theory suggests the institutions achieving a higher level of income diversification have reduced their exposure to financial risk and thus are less vulnerable. This paper finds it is the more established pre-1992 universities that are a) more able to compete for student income and, b) have developed more diversified income portfolios.

However, the top 20 places on the most recent HESA financial security index are occupied by post-1992 institutions when looking at averages for the same 5-year period as this study. In other words, an inverse of the income diversification index established by this study. As noted previously, Wellington (2007) found a similar picture which then became inverted when additional indicators including dependence on public-funding were added, expressing concern at the large representation of post-1992 universities in the bottom 20 of the expanded index.

Table 3. King's College London, 5-year Income Portfolio 2012/13–2016/17.

Year	Index score	Core tuition	Core funding	Core research	Core other	Invest / donative	Third- stream
2012/13	0.20	26%	22%	15%	16%	1%	19%
2013/14	0.21	30%	20%	16%	14%	1%	19%
2014/15	0.21	31%	17%	19%	15%	1%	18%
2015/16	0.21	32%	17%	15%	17%	4%	16%
2016/17	0.22	35%	16%	15%	16%	4%	15%
5-year	0.21	31%	18%	16%	16%	2%	17%

Table 4. University of Sunderland, 5-year Income Portfolio 2012/13–2016/17.

Year	Index score	Core tuition	Core funding	Core research	Core other	Invest / donative	Third- stream
2012/13	0.47	63%	25%	1%	8%	0%	3%
2013/14	0.58	75%	15%	1%	7%	0%	3%
2014/15	0.63	78%	11%	0%	8%	0%	2%
2015/16	0.62	78%	10%	1%	5%	0%	6%
2016/17	0.68	82%	8%	1%	5%	0%	5%
5-year	0.60	75%	14%	1%	7%	0%	4%

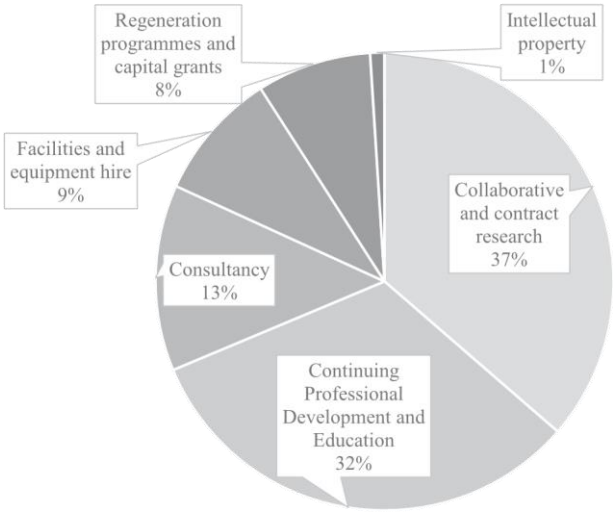

Figure 3. Third-stream income 2016/17 by income activity or source. Data source: HESA 2018.

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Further echoing Wellington (2007), this paper contends public higher education agencies assess an institution's financial sustainability with a limited range of indicators. An organisation's level of income diversification has long been associated with measures of financial health (Irvine and Ryan 2019). The findings of this study highlight the counter-intuitive rankings in the current HESA security index when compared with the income diversification index. The recommendation is to add the level of income diversification/concentration as an indicator to any public measure of financial security in the sector.

In closing, some universities are more successful than others in achieving a diversified income portfolio (Estermann and Pruvot 2014). Further research is required to understand the antecedent factors that influence the success of this strategy.

Notes

1. As a result of the Higher Education and Research Act 2017, HEFCE was replaced by the Office for Students.
2. Note, this study uses the HESA Finance Report 'IP income' under 'Other income' as the HE-BCI figure is gross income before disbursements to investors and interested parties and includes the sale of shares from spin-offs (i.e. the Finance Report figure is lower and a better reflection of actual income to the university).

Disclosure statement

No potential conflict of interest was reported by the author.

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Appendix

Appendix A. The national income diversification index 2018.

University	Index score	Core tuition	Core funding	Core resrch.	Core other	Invest. Donat.	Third-stream
The University of Oxford	0.19	18%	15%	27%	18%	5%	17%
Imperial College London	0.20	24%	17%	24%	15%	3%	18%
King’s College London	0.21	31%	18%	16%	15%	2%	17%
University College London	0.22	30%	17%	25%	14%	1%	14%
The University of Bristol	0.23	35%	19%	18%	16%	1%	11%
The University of Liverpool	0.24	38%	16%	19%	12%	2%	12%
The University of Manchester	0.24	39%	17%	15%	13%	2%	13%
The University of Southampton	0.25	39%	16%	12%	13%	1%	20%
The University of Birmingham	0.26	41%	17%	11%	12%	1%	18%
The University of Leeds	0.26	42%	17%	9%	16%	1%	15%
The University of Sheffield	0.26	42%	17%	14%	12%	1%	14%
The University of York	0.26	42%	14%	10%	19%	1%	14%
Newcastle University	0.27	42%	17%	6%	14%	1%	19%
Queen Mary University of London	0.27	41%	21%	17%	8%	0%	13%
The University of Cambridge	0.27	13%	11%	18%	44%	3%	11%
The University of Leicester	0.27	44%	15%	12%	11%	1%	17%
The University of Reading	0.28	45%	13%	8%	16%	8%	10%
University of Nottingham	0.28	44%	17%	8%	14%	1%	15%
The University of Warwick	0.28	44%	12%	10%	20%	1%	13%
The University of Surrey	0.28	46%	14%	6%	15%	5%	15%
Loughborough University	0.29	43%	17%	3%	16%	1%	21%
University of Durham	0.29	47%	15%	13%	16%	2%	7%
Keele University	0.30	46%	15%	7%	20%	1%	10%
The University of Bath	0.30	47%	16%	8%	17%	1%	10%
The University of Lancaster	0.30	46%	15%	5%	15%	0%	19%
London School of Economics	0.31	49%	8%	5%	20%	4%	13%
The University of Exeter	0.31	49%	14%	8%	16%	1%	13%
The University of East Anglia	0.32	50%	15%	8%	13%	1%	12%
The University of Essex	0.33	49%	11%	5%	24%	0%	11%
Brunel University London	0.33	50%	16%	8%	21%	0%	5%
The University of Sussex	0.34	52%	15%	8%	17%	1%	7%
Royal Holloway University	0.36	53%	16%	6%	18%	1%	5%
The University of Kent	0.36	54%	16%	5%	18%	0%	7%
University of Hertfordshire	0.37	54%	12%	1%	19%	1%	13%
Aston University	0.39	58%	15%	3%	12%	1%	12%
The University of Hull	0.41	59%	17%	1%	11%	2%	9%
University of Plymouth	0.41	59%	20%	4%	11%	0%	6%
SOAS University of London	0.42	61%	14%	6%	6%	3%	9%
Oxford Brookes University	0.43	60%	11%	1%	21%	0%	6%
The University of Bradford	0.43	61%	17%	2%	10%	1%	8%
University College Birmingham	0.44	57%	30%	0%	12%	1%	0%
The University of Central Lancashire	0.44	61%	17%	1%	7%	0%	13%
The University of Lincoln	0.44	62%	15%	0%	10%	1%	12%
The University of Brighton	0.44	62%	15%	2%	13%	1%	7%
Anglia Ruskin University	0.45	63%	12%	1%	6%	0%	19%
University of Derby	0.45	62%	19%	0%	9%	0%	9%
Southampton Solent University	0.45	63%	14%	0%	14%	0%	9%
University of the West of England	0.45	63%	13%	2%	15%	1%	7%
Teesside University	0.46	63%	17%	0%	7%	1%	12%
Goldsmiths College	0.46	64%	15%	2%	13%	0%	6%
The University of Wolverhampton	0.46	63%	15%	0%	9%	0%	13%
The University of Greenwich	0.46	64%	15%	2%	10%	1%	8%
Staffordshire University	0.46	63%	21%	0%	6%	0%	10%
University for the Creative Arts	0.47	61%	24%	0%	13%	0%	1%
The University of Chichester	0.47	64%	13%	0%	18%	0%	4%
Roehampton University	0.48	64%	15%	1%	18%	0%	1%
University of Northumbria	0.48	66%	13%	1%	14%	0%	5%
Buckinghamshire New University	0.48	66%	13%	0%	14%	0%	7%
London South Bank University	0.49	66%	16%	0%	11%	0%	6%
The University of Portsmouth	0.49	67%	14%	2%	8%	0%	8%
University of the Arts, London	0.49	67%	15%	0%	11%	1%	6%
Kingston University	0.49	66%	16%	1%	14%	1%	3%
University of St Mark and St John	0.49	65%	11%	0%	21%	1%	1%
University of Gloucestershire	0.50	67%	14%	0%	14%	0%	4%
Falmouth University	0.50	63%	15%	0%	16%	0%	5%

Leeds Beckett University	0.50	67%	13%	0%	11%	0%	8%
Middlesex University	0.50	68%	14%	1%	12%	0%	6%
University of Chester	0.50	67%	14%	0%	10%	0%	8%
The University of Westminster	0.50	68%	15%	1%	10%	1%	6%
Coventry University	0.50	68%	12%	1%	5%	1%	14%
University of Cumbria	0.51	68%	13%	0%	12%	0%	7%
London Metropolitan University	0.51	66%	23%	0%	5%	1%	6%
The University of Salford	0.51	68%	16%	1%	7%	0%	8%
The University of Northampton	0.51	69%	14%	0%	12%	1%	4%
The University of Huddersfield	0.52	69%	16%	2%	5%	1%	7%
Edge Hill University	0.52	67%	11%	0%	18%	0%	4%
The University of West London	0.52	69%	15%	0%	12%	0%	4%
The University of Winchester	0.52	68%	10%	0%	19%	0%	2%
St Mary's University, Twickenham	0.52	69%	13%	0%	14%	0%	4%
Bournemouth University	0.53	70%	14%	1%	10%	0%	5%
Manchester Metropolitan University	0.53	69%	16%	0%	9%	0%	6%
The Arts University Bournemouth	0.53	68%	16%	0%	12%	0%	3%
The University of East London	0.53	70%	15%	1%	12%	0%	1%
Canterbury Christ Church University	0.54	70%	12%	0%	13%	0%	4%
York St John University	0.54	70%	9%	0%	19%	0%	2%
Liverpool Hope University	0.54	70%	14%	0%	12%	0%	3%
University of Bedfordshire	0.55	72%	12%	0%	7%	0%	8%
University of Worcester	0.56	72%	11%	0%	13%	0%	4%
Leeds Arts University	0.56	64%	33%	0%	1%	1%	0%
City, University of London	0.56	73%	12%	3%	4%	1%	7%
The Nottingham Trent University	0.56	72%	14%	1%	7%	0%	6%
Leeds Trinity University	0.56	72%	12%	0%	15%	0%	1%
Bath Spa University	0.57	72%	13%	1%	12%	1%	1%
Birmingham City University	0.58	74%	13%	1%	7%	0%	5%
Liverpool John Moores University	0.58	73%	18%	1%	2%	0%	6%
Sheffield Hallam University	0.58	74%	14%	0%	5%	0%	7%
Bishop Grosseteste University	0.58	74%	11%	0%	13%	0%	1%
De Montfort University	0.59	74%	15%	0%	5%	1%	5%
The University of Bolton	0.59	74%	17%	1%	6%	0%	2%
The University of Sunderland	0.60	75%	14%	1%	7%	0%	4%
Newman University	0.61	75%	14%	0%	9%	0%	2%
Norwich University of the Arts	0.62	76%	14%	0%	7%	2%	1%

Note. Figures reflect 5-year averages 2012/13–2016/17.
Pre '92 universities are shaded grey.