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Chapter 16: Using data-driven approaches to address systematic awarding gaps

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Biography

Dr Katharine Hubbard is a lecturer in Biological Sciences at the University of Hull, where she teaches cell biology, and is particularly interested in the development of practical laboratory skills. She is currently the institutional lead for addressing awarding gaps, via a secondment post to the University of Hull Teaching Excellence Academy. She is a National Teaching Fellow, Senior Fellow of the Higher Education Academy and was awarded the Royal Society of Biology Higher Education Bioscience Teacher of the Year award in 2016.

Abstract

It is well known that universities award fewer 'high class' degrees to students from traditionally underrepresented backgrounds. This issue has been recognised for years, but progress on closing these awarding gaps has been slow. As universities are increasingly driven by quantitative metrics and league tables, in this chapter I argue that institutional awarding gaps should become a key performance metric in their own right. I discuss the merits of making live awarding gap data available at the disciplinary level, and the statistical limitations of such data, particularly when considering intersections of disadvantage. I also call on the sector to adopt awarding gap metrics in national league tables and quality assurance exercises, so that institutions can be transparently judged on their efforts to reduce educational inequality.

Main text

Structural awarding gaps have been described as the '*The great unspoken shame of UK Higher Education*' (Ross *et al.*, 2018). It has long been known that educational outcomes for undergraduates from traditionally underrepresented groups are generally worse than for their more advantaged peers (Connor *et al.*, 1996, 2004; Equality Challenge Unit and The Higher Education Academy, 2008; Cousin and Cureton, 2012; Mountford-Zimdars *et al.*, 2015). These are typically expressed as 'awarding gaps' or

‘attainment gaps’¹. For example, in the UK 81% of white students graduate with a 1st or a 2.1, compared with only 68% of Black, Asian and Minority Ethnic (BAME) students, representing a 13% awarding gap (Universities UK and National Union of Students, 2019). Awarding gaps also exist for mature students (12%), students from areas of educational disadvantage (10%), and disabled students (3%) (Office for Students, 2018b). These awarding gaps differ in magnitude between different institutions (Berry and Loke, 2011; Richardson, 2015), but are a persistent feature of the higher education landscape.

While it is clear that this represents an unacceptable inequality, at a sector level these gaps have persisted over a number of years. While some institutions have successfully narrowed their awarding gaps, most institutions have made modest or no progress in addressing these issues. This lack of sector level progress either suggests a lack of attention being paid to awarding gaps, or limited effectiveness of initiatives to address the gaps. In this piece I make the case for adopting a quantitative approach to the issue. I reflect on our institutional experience to argue that data can be an effective tool in focusing attention on awarding gaps at both a local and institutional level, and act as a catalyst for action on the ground.

Local context

My perspectives on educational inequalities come from my role as institutional lead for closing awarding gaps at the University of Hull (UoH). This is a relatively new role within the institution funded via our Widening Participation (WP) budget, which I undertake on a 50% secondment basis. The University of Hull is a civic university in the north of England, which recruits a high proportion of students (~50%) from the local area. As such, we have a high proportion of students from low HE participation areas as measured by the POLAR4 methodology (HESA, 2020b), and have been recognised as the UK university with the most equal participation rates (Martin, 2018). As with most institutions, we have persistent awarding gaps on the basis of educational disadvantage (POLAR4 quintile 1 vs 5; 15.2%), mature students (14.8%), ethnicity (9%) and disability (4%) (University of Hull, 2019). Our POLAR4 and mature student gaps are therefore wider than national benchmarks, whereas our BAME gap is smaller than the sector average (Table 1). My role covers student and staff facing activities to address all of these awarding gaps (including intersections of disadvantage), thereby contributing to newly defined institutional priorities around to reduction of educational inequality.

¹ Attainment gap¹ is the more commonly used term, but I use the phrase ‘awarding gap’ here to avoid deficit language. This language shifts the primary responsibility towards the institution to award degrees equitably, rather than on students from minority groups to attain equally.

Table 1: Institutional level awarding gap data masks local complexity. POLAR4 is a measure of HE participation by postcode, and is used as a proxy for educational disadvantage. A negative awarding gap indicates the minority group achieve a higher proportion of 1st and 2^{is} than the majority group. Faculty level data is anonymised for data protection reasons. National benchmarks are taken from the Office for Students (Office for Students, 2018b), institutional benchmarking and targets from our Institutional Access and Participation Plan (University of Hull, 2019).

Awarding gap	National benchmark	UoH benchmark data (2017/8)	UoH target for 2024/25	Awarding gaps for 2018/9				
				UoH	Faculty 1	Faculty 2	Faculty 3	Faculty 4
POLAR4	10%	15.2%	7%	10.9%	14.1%	10.4%	10.4%	4.0%
Mature	12%	14.8%	7%	11.1%	6.2%	4.5%	10.2%	14.8%
BAME	13%	9.0%	4.5%	5.9%	4.6%	8.7%	-6.8%	16.1%

Data as a driver of institutional decision making

One advantage of taking a quantitative approach to awarding gaps should be the opportunity for transparency and external accountability. Whether we like it or not, modern HE is metric driven. It is well known that institutional decision making is strongly influenced by metrics, and sector wide metrics are often incorporated into institutional Key Performance Indicators (KPIs) (Hazelkorn, 2007, 2009; Locke *et al.*, 2008; Lynch, 2015). In the UK, a number of parallel metric-driven approaches to evaluating universities are used. The most notable of these currently are university league tables and the Teaching Excellence Framework (TEF). At present, neither national league tables or the TEF incorporate awarding gaps as an explicit metric, which perhaps explains why progress on the issue has been slow across the sector. However, awarding gaps can contribute to league table metrics that are based on the proportion of 'good degrees' awarded (e.g. Complete University Guide 'Good Honours' and Guardian 'Value Added' metrics), which may be a mechanism to tie awarding gap data to external metrics. The TEF currently attempts to evaluate universities on the equitability of student outcomes (Higher Education Funding Council for England, 2018). While TEF2 considered non-continuation and employment by demographic characteristic, attainment of different demographic groups was notable by its absence. Until awarding gap data becomes part of the routine set of metrics by which universities are evaluated, the sector will inevitably prioritise other issues, and institutions which do prioritise awarding gaps will not be rewarded for doing so.

In our case, the institution has sought external accountability for awarding gaps through an alternative mechanism. In the UK, universities are required to submit an Access and Participation Plan (APP) to the Office for Students as a condition for charging the highest rate of tuition fees (Office for Students, 2018c). An APP can focus on various different aspects of Widening Participation (WP), including admissions, non-continuation, good degrees awarded or employment outcomes; the focus of an APP is down to the individual provider (Office for Students, 2018a). As an institution with a large number of students from WP backgrounds, our APP focuses on improving student outcomes (University of Hull, 2019). We have made a commitment to halve awarding gaps for BAME, mature, disabled students and those from areas of educational disadvantage over the next 5 years (University of Hull, 2019). We are incorporating these targets as Key Performance Indicators of our new educational strategy, linking external accountability to institutional indicators of success. Tying awarding gap targets to institutional prioritisation has enabled resource allocation. My own post is a direct example of this; I am on a 50% FTE secondment to our Teaching Excellence Academy to work on initiatives related to reducing awarding gaps, which is funded via our WP budget. Through aligning our external accountability, institutional strategy, KPIs and resources we have been able to focus activity on awarding gaps at an institutional level, which should have more impact than fragmented activity at ground level.

Data as a tool for local action

Having taken on responsibility to address awarding gaps across the institution, I started my post by consulting both the student union and those in academic leadership roles. I started the conversation by laying out the institutional awarding gap position and the targets set in the APP. The first question I was always asked by academics was '*What is the data for my subject area?*'. There have been calls for awarding gap data to be made available at as local a level as possible, which usually means either by discipline or even by degree programme (Universities UK and National Union of Students, 2019). Our experience is that this local level data is essential for getting buy-in from programme teams on the ground, and the complexities of awarding gaps are only uncovered by taking a fine grain approach to the data. For example, our detailed analysis uncovered that magnitude of awarding gaps varied considerably by faculty (Table 1). Diving deeper into the data also revealed considerable variation by discipline area (Woodfield, 2014). For example, while Faculty 3 does not have a significant BAME gap overall, there is one subject area within the faculty with a persistent BAME gap of between 15% and 46% for the last 4 years.

Without taking a detailed university wide look at the numerical data these differences would have gone unnoticed, and may therefore have resulted in inappropriate interventions. In our case, it would be ineffective to call for institutional wide focus on e.g. the BAME awarding gap, when some faculties need to prioritise other dimensions of educational inequality. Appropriate targeting of activity is particularly important in the context of modern HE, where resources are limited and there are multiple competing demands on academic and professional services staff. If quantitative awarding gap data is presented appropriately alongside relevant benchmarks, it can be a useful tool to identify and prioritise academic areas which most urgently need to act.

Activity to address awarding gaps is ultimately the responsibility of programme teams on the ground. In many institutions, awarding gap data is considered at institution level and only by senior management, resulting in a lack of ownership, understanding and accountability for the issue at ground level. To empower programme teams, there have been calls for awarding gap data to be made openly available to all relevant teaching and support staff (Universities UK and National Union of Students, 2019). One of my first tasks was to develop a live 'awarding gap dashboard' that provides subject level data to programme teams, including historical data and demographic breakdowns for context. The dashboard also flags disciplines that have awarding gaps significantly above the institutional APP targets, again aligning our WP strategy with on-the-ground activity. This dashboard will be linked to routine quality enhancement via our internal annual monitoring processes, making programme teams responsible for reporting on their awarding gaps and making action plans appropriate to their areas. Some institutions have gone further with this; for example Kingston University have developed their own 'value added' awarding gap metric at programme level, which compares the probability of a cohort achieving a 1st/2i with the proportion who actually achieve this (McDuff *et al.*, 2018). This metric highlighted the underperformance of BAME students at programme level, was incorporated into institutional KPIs, and has subsequently been used to track the narrowing of the awarding gap (McDuff *et al.*, 2018). While this approach is more sophisticated than ours, we have found that distribution of even the crudest data can be a useful tool to help programme teams understand the issue. Our experience is that once the numbers are there, by discipline, in black-and-white, benchmarked against other subject areas, it is more difficult for academics to put the blame on other areas of the university. Having the local data allows teaching teams to acknowledge the issue in their disciplinary context, and to take ownership for making change.

Limitations of data-driven processes

However, just providing programme teams with data is insufficient for change. What is needed is appropriate action to address awarding gaps (Equality Challenge Unit and The Higher Education Academy, 2008). This requires us to go beyond the quantitative data, and to understand the underlying reasons behind differences in attainment. The numbers can only ever describe the problem, they cannot explain it. Several reports have highlighted that a quantitative approach must be complemented by the qualitative, and to understand the experiences of individuals rather than reducing students to the sum of their demographic characteristics (Equality Challenge Unit and The Higher Education Academy, 2008; Universities UK and National Union of Students, 2019). It is also important to structure the conversation around the data to avoid deficit model thinking. Unfortunately some academics can easily adopt a mindset of *'we shouldn't admit these students if they don't do as well'*, which ultimately undermines efforts to reduce educational inequality (Smit, 2012). Dealing with educational inequality may require a (significant) change in mindset. Staff need support in understanding awarding gaps and how their teaching practice can evolve to improve outcomes for those from minority groups. Having built the infrastructure to share awarding gap data, our focus is now on creating staff development activities to enable action on the ground. This will present the data alongside first person testimonies of students from disadvantaged groups, and support staff in using both quantitative and qualitative information to formulate action plans.

It is also important to acknowledge the technical limitations of awarding gap data itself. Best practice suggests that such data should be considered at the most local level possible and not to assume that all 'BAME' students face the same issues (e.g. black students may face very different issues to their Asian peers) (Richardson, 2015). A truly inclusive approach also requires consideration of intersections of disadvantage (Crenshaw, 1989). However, there is a trade-off between the resolution of data and its robustness. Small cohort sizes mean that it is easy for awarding gap data to enter the realm of statistical noise (which numerically literate colleagues are quick to point out!). As an institution with a relatively small BAME population (13% at undergraduate level) (HESA, 2020a), we have found that for many disciplinary areas we have insufficient data to allow for meaningful analysis of BAME awarding gaps. In these cases, consideration of intersectional gaps or finer grain separation of the different groups encapsulated by the umbrella 'BAME' classification is statistically meaningless. One approach we have used is to look at data across several years, and to focus our attention on subject areas which have persistent gaps year-on-year rather than those that have 'blips'. However, part of the narrative when working with staff must be not to get 'hung up' on the limitations of local data (Universities UK and National Union of

Students, 2019). Awarding gaps are a known issue across the HE sector, and a lack of 'perfect' data cannot be used as an excuse not to act.

Conclusions and final reflections

In this chapter I have argued that adopting a nuanced quantitative approach to awarding gaps is essential to addressing educational inequality. Based on our experience of tackling inequalities in degree outcomes, having high quality data available at departmental or disciplinary level is a powerful tool for engaging programme teams with awarding gaps. We have found data to be most effective when it aligns external accountability, institutional KPIs, educational strategy and action on the ground by teaching and support teams. To encourage sector wide action to close awarding gaps, we would strongly favour the incorporation of awarding gap data into external measures of accountability such as league tables and the TEF. However, simply having the numbers is insufficient. The quantitative information needs to be backed up by resources to support staff to take action, which include a qualitative understanding of the issues faced by disadvantaged groups of students. In our experience the data is ultimately a tool to enable a conversation. Without the numbers it is difficult to effectively target interventions, especially when resources are constrained. However, addressing awarding gaps ultimately requires going beyond the data towards action on the ground. In order to do this, we must understand students as individuals with unique experiences that shape their educational success. While quantitative information helps to steer awarding gap initiatives, we must ultimately focus on students as people, not as simply numbers on a dashboard.

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