

Defining and Measuring Educational Gain: the case for closing attainment gaps

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Research Domains

Higher Education policy (HEP)

Abstract

This paper explores the concept of Educational Gain as one of the core metrics characterising quality of higher education in England through the Teaching Excellence Framework. We present a case-study developed at a mid-sized university to quantify Educational Gain defined as the narrowing of attainment gaps between students from disadvantaged and non-traditional backgrounds with respect to their peers. Using institutional administrative data, we construct a measure of Educational Gain expressed as the difference in stage average marks between year one and year three for students who completed a degree between 2013-2023. We then proceed analysing the dynamics of attainment gaps between groups of students belonging to disadvantaged and traditional background. Our empirical strategy is able to characterise intersectionality across these groups, as well as controlling for a wide range of demographic and academic indicators. We conclude by discussing our findings and their policy implications for the institution and the sector.

Full paper

This paper addresses the evolution of the Higher Education (HE) policy framework in the United Kingdom by investigating the concept of Educational Gain through a case-study developed at a mid-sized Higher Education Institution (HEI) in the East of England: the University of East Anglia (UEA). Using institutional administrative data, we quantify a measure of Educational Gain and explore important heterogeneities across student demographics and disciplines. Within the wider HE policy framework, this research has implications for: (i) quality assurance, (ii) understanding the nature of attainment gaps, and (iii) devising effective intervention to close such gaps.

Current HE legislation in England builds on the Teaching Excellence Framework (TEF) to establish, monitor, and enforce the quality standards against which HEIs are expected to operate. HEIs are required to submit to the sector regulator (the Office for Students, OfS) a self-assessment document providing narrative, interpretation, and insights on a benchmarked and standardised set of metrics encompassing various aspects of the student experience and associated student outcomes. A particular feature of the most recent TEF exercise (OfS, 2023) is the inclusion of a measure of Educational Gain. Differently from all the other metrics targeted within their TEF submissions, HEIs are free to define, measure, and critically appraise their own conceptualisation of Educational Gain. The introduction of this self-determined indicator of excellence allows HEIs to frame practice that aligns with their mission

and values. This approach builds on the legacy of large-scale pilot projects, conducted in the sector between 2015-2018, which found it impossible to determine a single metric which addresses the complexity of measuring learning gain – the distance run by students over the course of their academic journey (Kandiko Howson, 2019a, 2019b). The concept of Educational Gain represents an opportunity for HEIs to assert their own uniqueness and position in the HE market, but also creates great uncertainty and challenge due to its intrinsically undefined nature. As HEIs review the outcomes of TEF 2023, and prepare for the next assessment due in 2027, the expectation is that Educational Gain will feature in the next iteration of TEF (Kay and Hastings, 2024). Whilst Fung (2024) provides a first account of different conceptualisations and measurements for Educational Gain emerging from the TEF 2023 submissions, the critical debate on the multi-faceted dimensions of Educational Gain is still at its infancy.

We take the case study of a mid-sized English university to explore the heterogeneities in Educational Gain using administrative data. The University of East Anglia defines Educational Gain as the narrowing of attainment gaps between students from disadvantaged and non-traditional backgrounds with respect to their peers. This measure is aligned with the UEA Access and Participation Plan and with the inclusive mission of the institution (UEA, 2023). To estimate Educational Gain, we focus on full-time undergraduate cohort data from students who complete a degree; we consider the difference between the stage mark obtained at year three and year one; this quantifies the attainment gain along a student's lifecycle (Gillespie *et al.*, 2018; Ylonen *et al.*, 2018). We then proceed to compare the metric across different dimensions of disadvantage to assess attainment gaps between groups identified by: index of multiple deprivation, disability, mature students, or students from black and Asian minority groups. Our dataset utilises student data collected between 2013-2023 and controls for a wide range of demographic variables (i.e. gender, domicile, native language) as well as academic indicators (i.e. discipline of study, previous attainment, tariff, enrolment in foundation year studies, reception of a bursary). The longitudinal dimension of the data enables us to outline the evolution of attainment gaps over time, whilst controlling for demographic and academic variables enhances the explanatory power of our empirical model. A particular feature of our approach is the ability to estimate the simultaneous interaction of different dimensions of disadvantage, addressing the challenges posed by intersectionality.

Our results highlight the importance of considering initial grades when assessing Educational Gain to provide context. Failing to do so overestimates the Educational Gain in the dimensions of ethnicity, deprivation, and disability, while underestimating for mature students. In the final part of our analysis, we present and discuss our findings and we critically appraise our operationalisation of Educational Gain. The evaluation of our approach includes a discussion over scalability across other HEIs and the policy-relevance of our empirical strategy, which can be easily employed to assess the efficiency and efficacy of institutional and sector-wide interventions, as well as the role played by idiosyncratic shocks, such as the Covid-19 pandemic and strike action.

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