Mapping and evaluating the use of contextual data in undergraduate admissions in Scotland

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Vikki Boliver, Stephen Gorard, Mandy Powell, and Tiago Moreira
Durham University

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Executive summary

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Overview

Many Scottish higher education institutions currently use contextual data about applicants' socioeconomic circumstances to inform decisions about which applicants to admit to their undergraduate degree programmes. Recognising that "the school attainment of disadvantaged learners often does not reflect their full potential",[1] institutions are employing a range of individual-level, area-level and school-level indicators of contextual disadvantage to help determine which applicants to invite for interview or audition, offer places to conditional on meeting standard academic entry requirements, or offer places to on the basis of adjusted entry requirements. Contextualised approaches to admissions were pioneered in Scotland in the 1990s and institutions across the sector have expressed a commitment to the greater and more effective use of contextual approaches to admission in the future.[2]

Wider and more ambitious use of contextualised admissions policies is likely to be an important means of significantly widening participation in higher education in Scotland, where progress on widening access has been slow over the course of the past decade.[3] As Figure 1.1 shows, in 2015 just one in ten Scottish-domiciled 18 year olds from the most deprived neighbourhoods in Scotland (SIMD20)[4] progressed to university, compared to more than four in ten 18 year olds from the least deprived neighbourhoods (see Panel A). Similarly, only around one in twenty enrolled 18 year olds from the most deprived neighbourhoods entered a higher tariff (top third most academically selective) institution, compared to almost three in ten from the least deprived neighbourhoods (see Panel B). These gaps have been narrowing, but only slowly.

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[1] Commission on Widening Access (2016) A Blueprint for Fairness. The Final Report of the Commission on Widening Access. Scottish Government. p.10

[2] Universities Scotland (2016) Futures Not Backgrounds. Edinburgh: Universities Scotland.

[3] Hunter Blackburn, L., Kadar-Satat, G., Riddell, S. and Weedon, E. (2016) Access in Scotland: Access to higher education for people from less advantaged backgrounds in Scotland. Sutton Trust.

[4] SIMD is a robust area-level measure of multiple deprivation which is used to monitor progress towards widening participation in Scotland. We discuss its suitability as an indicator of the socioeconomic circumstances of specific individuals below and in report 3.

Figure 1.1 Percentage of 18 year olds entering higher education institutions (panel A), and entering higher tariff institutions (panel B) by Scottish Index of Multiple Deprivation (SIMD) quintile, 2006-2015[5]

Panel A	Panel B
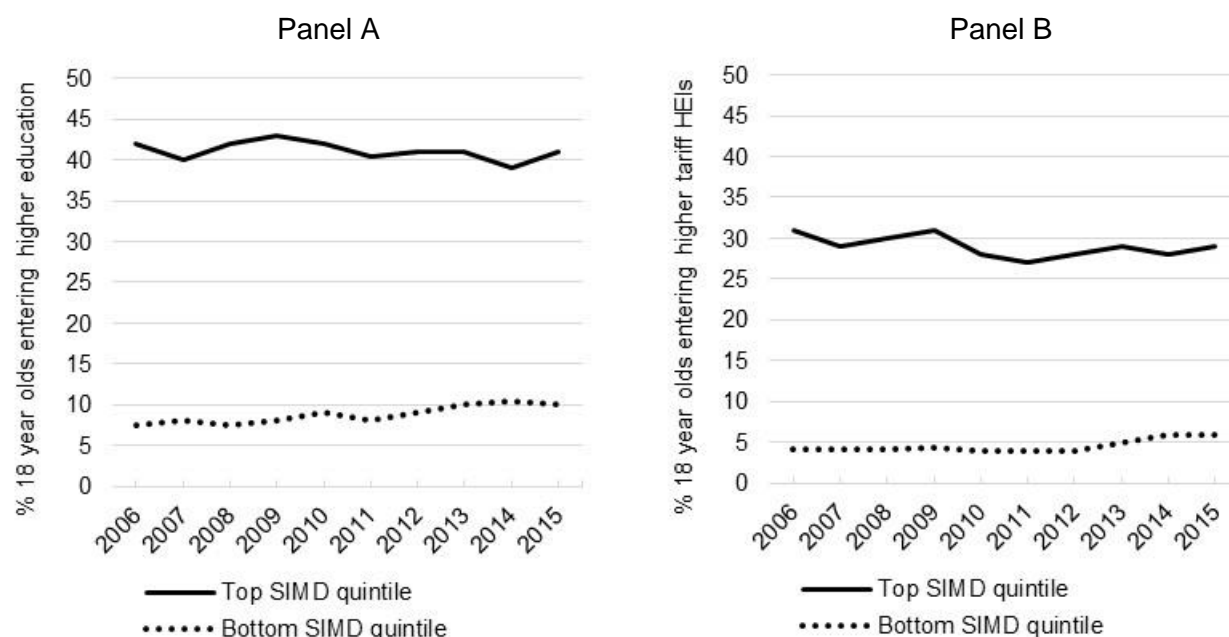
The First Minister's goal is to increase the representation of individuals from Scotland's 20% most deprived neighbourhoods (SIMD20) among full-time first degree entrants to Scottish universities to at least 16% by 2021, at least 18% by 2026, and 20% by 2030.[6] The ambition is also to increase the representation of those from SIMD20 postcodes to at least 10% of entrants to every university in Scotland by 2021, with higher institution-specific targets to follow. As Figure 1.2 shows, 14% of all Scottish-domiciled entrants to full-time first degree courses at Scotland's 18 higher education institutions were from SIMID20 postcodes in 2015-16, suggesting that the 16% target for sector as a whole by 2021 is within reach. However, the percentage of SIMD20 postcode entrants varies significantly across institutions, with a number of institutions still having some way to go to reach their target of 10% by 2021.

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[5] Source: UCAS (2015) End of Cycle Report 2015. December 2015. Cheltenham: UCAS.

[6] Commission on Widening Access (2016) A Blueprint for Fairness. The Final Report of the Commission on Widening Access. Edinburgh: Scottish Government.

Figure 1.2 Scottish-domiciled entrants to full-time first degree courses at Scottish HEIs in 2015-16[7]
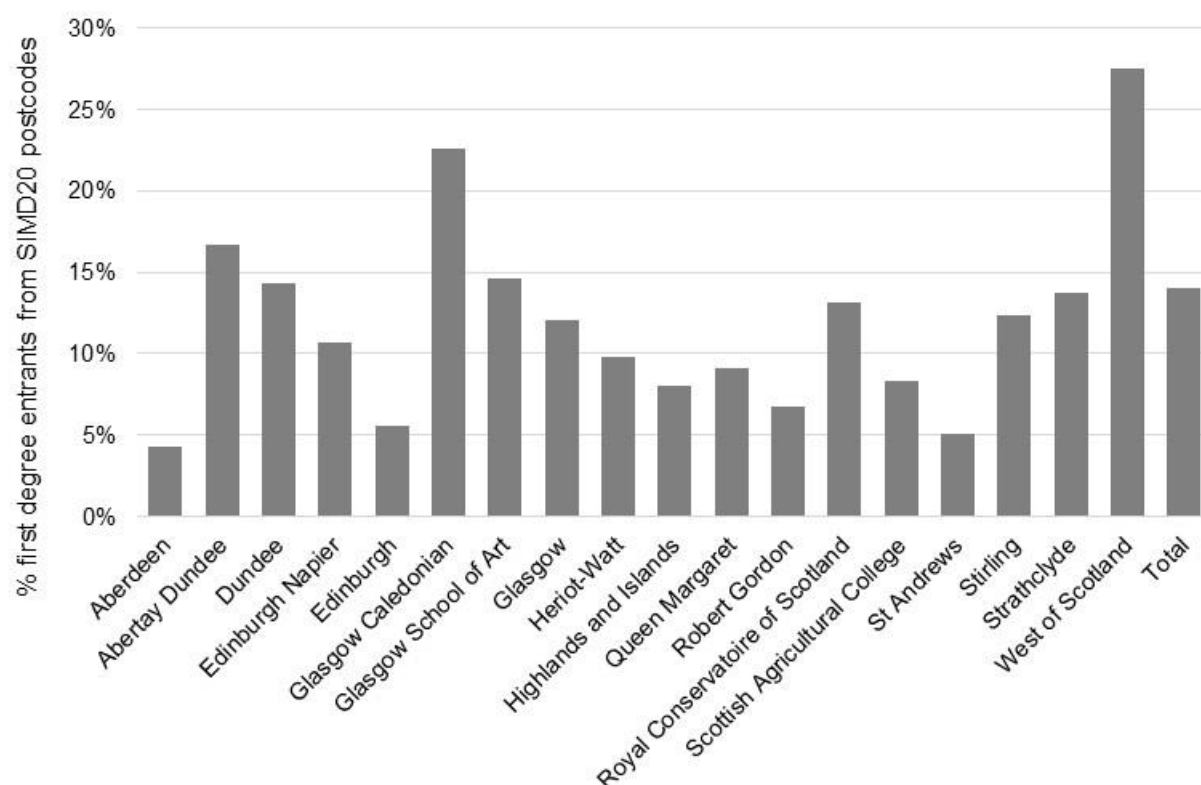
Contextualised admission will be an important mechanism for achieving Scotland's widening participation targets. The effectiveness of contextualised admissions depends critically, however, on the selection of relevant and robust indicators of contextual disadvantage which will ensure that this intervention reaches the intended beneficiaries.[8] Its effectiveness also rests on the appropriately ambitious use of contextualised offer-making, involving the adjustment of academic entry requirements for contextually disadvantaged applicants to levels which better recognise their academic potential and which more accurately reflect the minimum needed to do well at degree level.[9]

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[7] Source: Scottish Funding Council (2017) SFC Report on Widening Access 2015-16. Statistical Report SFC/ST/08/2017. Edinburgh: SFC.

[8] Scottish National Expert Think Tank (SNETT) Contextualised Admissions – What are the data needs in HE providers? SNETT/SPA.
Supporting Professionalism in Admissions (2014) Contextualised Admissions – Issues and considerations for HE providers introducing and implementing contextualised admissions. Cheltenham: SPA.

[9] Commission on Widening Access (2016) A Blueprint for Fairness. The Final Report of the Commission on Widening Access. Edinburgh: Scottish Government.

Currently, higher education institutions in Scotland are drawing on different contextual indicators and are using these to inform admission decisions in different ways. The variety of approaches taken stems in part from a lack of robust evidence on which to base decisions about the selection and deployment of contextual indicators. This executive summary provides an overview of a mixed-methods research project which contributes to the evidence base informing effective practice. The research project was carried out by a team based at Durham University during the academic years 2015/16 and 2016/17 and was funded by the Scottish Funding Council as part of its *Impact for Access* initiative. The project covers 18 higher education institutions in Scotland, comprising 15 universities and 3 specialist higher education providers (referred to collectively as 'universities' in these reports).

Summary of the project reports and key recommendations

A series of four reports accompany this executive summary. The first two reports map current approaches to contextualised admissions at eighteen higher education institutions in Scotland, drawing on publicly available institutional policy documents to explore the use of contextual data to inform admissions decisions (Report 1), and on in-depth interviews with admissions personnel to explore institutional orientations to contextualised admissions (Report 2). The third and fourth reports evaluate contextualised admissions approaches, drawing on conceptual work to evaluate the validity and reliability of potential indicators of contextual disadvantage (Report 3), and on a statistical analysis of large-scale administrative datasets to develop the evidence base guiding the identification of appropriate minimum entry requirements for contextually disadvantaged applicants (Report 4).

Mapping the use of contextual indicators

Report 1 documents which indicators of contextual disadvantage are currently being used by Scottish universities, and explores how these contextual indicators are being used to inform undergraduate admissions decisions. This report draws on institutional policy documents published by each of 18 higher education institutions in Scotland, including Outcome Agreements, admissions policies, admissions webpages and strategic plans. These documents were accessed initially in 2015 and updated versions were accessed again in 2017. The report highlights a diversity of institutional practices with respect to the selection and deployment of contextual indicators, and notable differences across institutions with respect to both the transparency and ambitiousness of institutional practices. Key recommendations for good practice across the sector are:

> ➢ Recommendation 1. Institutions should provide clearer guidance to applicants on their websites about whether or not they can expect to be considered contextually disadvantaged for admissions purposes.

> ➢ Recommendation 2. Institutions should provide clearer guidance to applicants on their websites about what actions the institution will take in relation to applicants identified as contextually disadvantaged for admissions purposes.

> ➢ Recommendation 3. Institutions across the sector should work together to develop a common nomenclature to be used when describing contextualised admissions policies to prospective applicants.

> ➢ Recommendation 4. There is scope for institutions to make greater and more ambitious use of adjusted offers to applicants identified as contextually disadvantaged.

Institutional orientations to contextualised admissions

Report 2 explores institutional orientations to contextualised admissions at the levels of policy and practice. We draw principally on 75 in-depth interviews with admissions policy-makers, selectors, and data analysts across 18 higher education institutions which were conducted during the 2015/16 academic year. We identify four broad types of institutional orientation to contextualised admissions, associated with different conceptions of the relationship between the institution and the wider educational and social system; with different understandings of the purpose of admissions policies in general and of contextualised admissions policies in particular; and with the use of different systems and tools to aid the selection of students. Our analysis points to the need to address a number of issues which may impede the development of contextualised admissions strategies, relating specifically to (1) the tension between recognising socioeconomic differences in school achievement as having structural causes and the primary focus of undergraduate selection on grades achieved by the individual; (2) uncertainty about what constitutes and indicates potential and whether disparities between potential and formal academic achievement can and should be addressed at degree level; and (3) concerns about the robustness of the data and evidence underpinning contextualised admissions policies. Our key recommendations are:

- ➢ Recommendation 5. While institutions recognise that high achieving applicants from contextually disadvantaged backgrounds have performed exceptionally well despite the odds, institutions could do more to recognise the potential of contextually disadvantaged applicants whose prior achievement is below the institutional norm but is strong relative to those from similarly disadvantaged backgrounds. In this regard, institutions may find it helpful to have access to information about the Highers attainment profiles of contextually disadvantaged groups, so that it is clear what constitutes a strong academic performance on the part of a contextually disadvantaged applicant relative to others in similar circumstances.

- ➢ Recommendation 6. Institutions could do more to recognise the significant role they can play in supporting the learning of contextually disadvantaged students to help ensure that they fulfil their potential once at university.

- ➢ Recommendation 7. While some institutions already take a research-informed approach to selecting appropriate and trustworthy indicators of contextual disadvantage, other institutions could increase their confidence in their own contextualised admissions policies by drawing on research evidence to inform their choice of contextual indicators.

- ➢ Recommendation 8. Institutions could do more, individually and collectively, to communicate to the wider public the purpose and value of contextualised admissions policies.

Evaluating the validity & reliability of potential indicators of contextual disadvantage

Report 3 assesses which contextual indicators, singly and in combination, constitute the most valid (appropriate) and reliable (trustworthy) indicators of the socioeconomic circumstances of individuals. This assessment includes indicators commonly used by Scottish universities (see Report 1) and several potentially suitable indicators which are not commonly used but could be. The report considers the validity and reliability of a range of individual-level, area-level and school-level indicators of contextual disadvantage. For each indicator we assess the risk of incorrectly identifying an applicant as contextually disadvantaged when they are not (known as a 'false positive'), and the risk of incorrectly identifying an applicant as not contextually disadvantaged although they are (known as a 'false negative'). We argue that, while the most valid and reliable indicators are of course those which yield few false positives *and* few false negatives, indicators which yield few false

positives can be considered suitable for use alone on an EITHER/OR basis regardless of the number of false negatives they yield (and in fact using multiple indicators of this type on an EITHER/OR basis will tend to reduce false negatives). We also argue that indicators which yield a moderate number of false positives may be suitable markers of contextual disadvantage if used in combination on an AND/ALSO basis, whereas indicators which produce a large number of false positives should not be used for contextual offer-making purposes. Specifically, we recommend that:

> Recommendation 9. Institutions should, where possible, make use of all indicators of contextual disadvantage which carry a low risk of incorrectly identifying an applicant as contextually disadvantaged when they are not. Such indicators include the following administratively verifiable individual-level markers of socioeconomic disadvantage: has spent time in care, is a carer for a family member, is a refugee or asylum seeker, was in receipt of free school meals, or received an Education Maintenance Allowance. These indicators are suitable for use singly on an EITHER/OR basis (i.e. applicants are highly likely to be genuinely contextually disadvantaged if they meet any one of these criteria).

> Recommendation 10. Institutions should exercise caution when using contextual indicators which carry a moderate risk of incorrectly identifying an applicant as contextually disadvantaged when they are not, and should use such indicators only in conjunction with others on an AND/OR basis. Such indicators include the following area-level and school-level measures of socioeconomic disadvantage which, by definition, may not accurately capture the personal circumstances of specific individuals: resides in an SIMD20/40 postcode area, resides in a POLAR quintile 1 or 2 postcode area, resides in an ACORN 4 or 5 postcode area, attended a school with a high percentage of students in receipt of free school meals, attended a school with a high percentage of students in receipt of an Education Maintenance Allowance, attended a low attainment school, and attended a low progression school. These indicators are more likely to correctly identify applicants as contextually disadvantaged if they are used in combination on an AND/OR basis (i.e. applicants are more likely to be genuinely contextually disadvantaged if they meet two, rather than just one, of these criteria).

> Recommendation 11: Institutions should avoid using indicators which carry a high risk of incorrectly identifying an applicant as contextually disadvantaged when they are not. Such indicators include individual-level measures that are not readily

administratively verifiable, such as parental education and parental occupation, or which define socioeconomic disadvantage too broadly, such as living in a rural area and attending a certain broad type of school.

➢ Recommendation 12. Valid and reliable indicators of contextual disadvantage should be made available to institutions at the point of admissions decision-making. This will require data providers and institutions to work together to develop systems for sharing robust contextual data about applicants in a timely manner and to put appropriate data protection and data sharing agreements in place.

Identifying minimum entry requirements for contextually disadvantaged applicants

Report 4 examines the empirical evidence regarding the relationship between achievement at Highers level and subsequent success at degree level with the aim of informing the identification of appropriate minimum entry requirements for contextually disadvantaged students. The report summarises the existing evidence base and presents an analysis of HESA data focusing on the relationship between Highers grades and two measures of degree success at Scottish universities: progression from year 1 to year 2 of a degree programme rather than non-progression, and achievement of a first or upper second class degree rather than a lower second or third class degree. Drawing on this empirical evidence, we set out some initial recommendations to guide institutions in setting more ambitious minimum entry requirements, and we flag up the importance of developing appropriate academic support services which will ensure that contextually disadvantaged fulfil their academic potential once at university.

➢ Recommendation 13. Scotland's higher education institutions should set minimum entry requirements for contextually disadvantaged students which recognise potential and are predictive of an appropriately high likelihood of success at degree level.

The indicative evidence presented in Report 4 suggests that a high probability (80%+) of progression from year 1 to year 2 of an undergraduate degree programme can be achieved with Highers grades of BBBBB at highly selective HEIs; with BCCCC/BBBCC for science/arts programmes respectively at moderately selective HEIs; and with BCCCC at less selective HEIs.

The evidence presented in Report 4 also indicates that a high probability (65%+) of a first or upper second class degree rather than a lower second or third class degree

can be achieved with Highers grades of ABBBB/BBBCC for science/arts programmes at highly selective universities; with BBBBB/BBBBC for science/arts programmes at moderately selective institutions; and with BBBBC/BCCCC for science/arts programmes at less selective HEIs.

Appropriate minimum entry requirements are, of course, likely to vary between programmes, and some programmes may require minimum levels of prior academic achievement in prerequisite subjects. As such, the grade profiles listed above are indicative rather than definitive. Where possible, institutions should calibrate minimum entry requirements against evidence for their own programmes. More research is needed to identify appropriate minimum entry criteria for contextually disadvantaged backgrounds with 4 rather than 5 Highers, and with qualifications other than Highers.

- ➤ Recommendation 14. Institutions should provide appropriate learning support for contextually disadvantaged students to help ensure that they fulfil their potential at degree level. Several institutions already offer pre-entry programmes, supported first years of study, and ongoing academic and pastoral support services for contextually disadvantaged students. It would be valuable to share evidence-based examples of good practice in this regard across the sector, and further research is needed to identify the most effective ways of supporting the learning of contextually disadvantaged students.

Acknowledgements