BERJ British Educational Research Journal

BERA BRITISH EDUCATIONAL RESEARCH ASSOCIATION

British Educational Research Journal
Vol. ●●, No. ●●, ●● 2018, pp. ●●–●●

DOI: 10.1002/berj.3482

A new composite measure of ethnic diversity: Investigating the controversy over minority ethnic recruitment at Oxford and Cambridge universities

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Measuring ethnic diversity currently amounts simply to counting ethnicities. This makes it impossible to correlate with achievement, to track changes over time or to compare institutions in a meaningful way. It is not clear, for example, whether it is more diverse to have many ethnicities with a large majority in one or two categories, or to have fewer ethnicities with a larger proportion in each. This article is not about race per se, but develops indices from cryptography and ecology to solve the problem of measuring diversity properly. Using data from freedom of information requests and university admissions offices, it analyses the ethnic diversity of undergraduate recruitment at Oxford and Cambridge universities over the past 10 years to resolve one of the most controversial issues in higher education today. It finds that both Oxford and Cambridge universities have increased ethnic diversity by more than 25% over the last decade, but that the problem of under-recruitment of black UK students remains. The article is an important contribution to research methodology, with clear applications in the field of school effectiveness, and informs the debate on social justice in education, particularly in a period of significant demographic change across Europe.

Keywords: higher education; ethnic diversity; Oxbridge admissions

Introduction

Ethnicity is not the same as *ethnic diversity*, and looking to correlate the former against (say) attainment at the student level cannot be scaled up to correlating the latter against attainment at the level of the institution. Currently, in educational effectiveness research, there is no composite institution-level measure for ethnic diversity. At the student level, there are categorical ethnicity data and binary 'flags' such as (in schools in the UK) English as an Additional Language (EAL), but while this is sometimes up-scaled to the institutional level as a proxy measure for some undefined type of diversity in the same way as entitlement to free school meals (FSM) is a proxy measure in schools for socio-economic status, the relationship between ethnicity and EAL is at best problematic and nuanced, and at worst misleading (see Strand *et al.*, 2014, pp. 6–7, 70). National and local government planners use census and revenue and customs data to forecast expenditure and enrolment in universities, but there is

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no mechanism for tracking ethnic diversity at the level of the institution, which in most developed countries is the devolved budgetary unit. This poses non-trivial challenges for policy-makers in devising a fair allocation of resources to ensure that those at risk of under-achievement benefit to the fullest extent from the education on offer. Ethnicity, defined by the UK Department for Education (DfE) as the 'personal awareness of a common cultural identity' and 'a subjective decision that does not infer any other characteristics such as religion' (DfE, 2014, p. 31), is not a predictor of under-achievement at the student level. In UK schools, for example, most Black, Asian and minority ethnic (BAME) groups do better on average than their White British counterparts, despite their (on average) lower socio-economic status (Strand, 2015), but being able to measure *ethnic diversity at institutional level* would make it possible to correlate diversity with performance and to examine whether and in what circumstances the diversity of students impacts on attainment.

Admission to Oxford and Cambridge universities in the UK, and Ivy League universities in the USA, is one place where this issue of ethnic diversity, and the lack of a suitable methodology to enable data to be properly interpreted, causes consternation among policy-makers. As the oldest and arguably most prestigious universities in the English-speaking world, Oxbridge[1] admission is seen as a bellwether of social mobility for BAME communities—'a golden ticket and a gateway to the top jobs' (Bulman, 2017; Heffer, 2017)—and its perceived failure to admit more students from minority communities is seen by Labour MP David Lammy as a 'social apartheid':

> *Difficult questions have to be asked, including whether there is systematic bias inherent in the Oxbridge admissions process that is working against talented young people from ethnic minority backgrounds*. (cited in Adams & Bengtsson, 2017)

The reason that these 'difficult questions' about systemic bias have not been, and cannot be, answered authoritatively is because the current practice of simply counting the number of ethnicities in a university makes it impossible to track changes over time or compare institutions. It is clear, for example, that a student population with (say) 40 *equally populated* ethnic categories has twice the diversity of a student body with 20 *equally populated* ethnicities, but how is diversity to be measured when the categories are *not* equally populated? What is needed is a single index that does more than simply count how many ethnicities exist in a dataset, but instead takes account of the relative population size of those different ethnicities. This is what will be developed in this article.

In terms of nomenclature for what follows, the number of ethnic types in a dataset is called 'richness' and the relative abundance of these different types is called 'evenness'. The following example will illustrate the difference. Suppose the ethnic diversity in two different universities is being considered: the first consists of 30 students of Indian background, 20 of African background and 50 of European background; the second comprises 2 students of Indian background, 95 of African background and 3 of European background. Both institutions have the same total number of students (100) and have the same 'richness' (three categories), but the first institution has greater 'evenness' because the students are more evenly distributed across the three types (see Kelly, 2016).[2]

Two groups of diversity indices—Shannon and Simpson—will now be adapted for use in the field of ethnicity in education before discussing the concept of true diversity as a means of comparing them. Part 2 of the article will apply the indices to Oxbridge undergraduate admissions. Readers who wish to avoid the mathematical derivation of the indices can note in passing Eqs (1), (2) and (3) and Table 1, and skip to Part 2 of the article.

Part 1. Theory

Shannon-type indices

The Shannon diversity index (also known as the 'Shannon–Wiener index' and the 'Shannon–Weaver index') is based on an idea in cryptography, originally proposed by Claude Shannon to quantify the uncertainty of predicting letters contained in strings of text (Shannon & Weaver, 1948), that the more different letters there are, and the more equal their proportional populations, the more difficult it is to predict which letter will be next in a string. It has applications in codebreaking. Adapting it here to the field of ethnic diversity in education, the Shannon index (H) quantifies the uncertainty in predicting the next ethnic 'type' of a student taken at random from a dataset. It is given by the formula:

$$H = -\sum_{i=1}^{R} p_i ln p_i \tag{1}$$

where R is richness (i.e. the total number of types in the population), p_i is the fraction of the population made up of the ith type in the dataset and ln p_i is the natural logarithm of p_i. Since the natural logarithm of any fraction (p_i) is negative, the purpose and effect of the negative sign in the formula is only to correct the sum to a positive total.[3]

The Shannon index is sometimes called the Shannon entropy. Most non-parametric diversity indices are referred to in the literature as 'entropies' (see Ricotta, 2003), but 'entropy' is not used here in the same sense that it is used in thermodynamics. Here it is a measure of the unpredictability or uncertainty in the outcome of a sampling process (Jost, 2006); for example, when the Shannon index is calculated using log base 2 it is the average minimum number of 'yes/no' questions required to determine the ethnicity of the sampled student. Further details of the Shannon index are provided in Appendix A.

Table 1. The conversion of the Shannon and Simpson education indices to true diversities

Index	True diversity
Shannon, $\mathrm{H} = -\sum_{i=1}^{S} p_i \ln p_i$	e^H
Simpson, $\lambda = \sum_{i=1}^{S} p_i^2$	$1/\lambda$

When all categories in the dataset are equally common, $p_i = 1/R$ for all i and the Shannon index reaches its maximum value, ln R.

The more unequal the category populations, the larger the weighted geometric mean of the p_i values, and therefore the smaller the Shannon index. If nearly everyone is concentrated in one category and other categories have near-zero populations, then the Shannon index approaches zero; in other words, there is very little uncertainty in predicting the ethnicity of the next randomly chosen student. So 'not-very-diverse' data has a low H and in extremis, when there is only one ethnic type in a dataset, H is zero.

A normalised version of the Shannon index is the Shannon equitability index, E_H, which is calculated by dividing H by $H_{\max}$:

$$E_H = H/H_{max} = \mathrm{H}/lnR \tag{2}$$

The advantage of E_H is that its range is fixed from 0 to 1, with 1 representing a perfectly even distribution, whereas the range of the usual Shannon index is not fixed but depends on richness, R.

Simpson-type indices

The Simpson index was invented to measure the degree of concentration of individuals by type (Simpson, 1949). Similar indices were proposed in 1945 by Hirschman and in 1950 by Herfindahl (see Hirschman, 1964; Lovett, 1988), so the metric that is known as the Simpson index in ecology is known as the Herfindahl–Hirschman index in economics. Adapting it here to the field of ethnic diversity in education, the Simpson index (λ) is the probability that two students taken at random from a dataset have the same ethnicity. It is given by the formula:

$$\lambda = \sum_{i=1}^{R} p_i^2 \tag{3}$$

where p_i is the fraction of the population made up of the ith type in the dataset.

This is equivalent to the weighted arithmetic mean of the population fractions (p_i), with the fractions themselves being used as the weights. The bigger the Simpson index, the lower the diversity: $\lambda = 0$ represents infinite diversity and $\lambda = 1$ represents no diversity.

The interpretation of λ as the probability that two individuals taken at random from a dataset turn out to have the same ethnicity assumes that the first individual is 'replaced' in the dataset before the second one in chosen. Appendix B describes the case where the individual is not assumed to have been replaced.

The Simpson index is small for high diversity and large for low diversity, which is counterintuitive to a layperson, so various versions of the Simpson index can be found in the literature that use transformations to flip this around; that is to say, so that the index increases with greater diversity. I have found two such indices: the inverse

Simpson index ($1/\lambda$ or λ^{-1}) and the Gini–Simpson index[4] ($1 - \lambda$), both of which have at some stage been called 'the Simpson index', so great care is needed when reviewing the literature. These 'flipped versions' of the Simpson index are described in Appendix C.

Comparing indices: True diversity

Most non-parametric diversity indices, including the Shannon and Simpson families of indices, are monotonic[5] functions of:

$$\sum_{i=1}^{R} p_i^q$$

or limits of such functions as q approaches 1. However, indices of diversity are a measure of uncertainty rather than of diversity itself. When all types *are equally common*, diversity is simply equal to the number of ethnicities (i.e. richness, R), but when some ethnic categories are more heavily populated than others, finding the actual diversity of a cohort from its index amounts to finding an equivalent cohort (i.e. one with the same index value) composed of *equally common* types. This is the concept of true diversity (^qD). It allows different indices of diversity to be converted into *actual* diversities, which is important when comparisons are required. True diversity is defined as the *effective number*[6] of ethnic types in a dataset; that is to say, the number of *equally populated* ethnic categories needed for the average fractional populations of the categories to be the same as it in the actual dataset.

Firstly, the diversity index for D equally populated ethnic categories is calculated, remembering that each category has a frequency of $1/D$ if the ethnicities have equal populations. Secondly, the resulting expression is put equal to the value of the diversity index. Thirdly, that equation is solved for D, which is then the *effective* number of ethnicities (i.e. the true diversity) of the population for that particular index.[7] No matter which diversity index is used from the Shannon or Simpson families, the same formula emerges for true diversity. Using the usual notation, it is:

$$^qD = \sum_{i=1}^{R} p_i^{q^{1/1-q}}$$

The unit for true diversity is called 'effective types' or 'types', no matter what index is used originally, and its properties can be found in Appendix D.

Table 1 shows how to convert Shannon and Simpson indices into true diversities and it is easy to demonstrate that they are very non-linear. For example, when the Shannon $H = 4$, its true diversity is $e^4 = 54.6$ types; whereas when the Shannon $H = 5$, its true diversity is $e^5 = 148.4$ types. So, for an increase of 25% in the Shannon index (from 4 to 5), the true diversity increases by nearly 175% (from 54 to 148). Conversely, we could say that a true diversity of 148 is approximately three times a true diversity of 54, but this would not be clear from their respective Shannon indices ($H = 5$ and $H = 4$, respectively).

Part 2. Undergraduate admission to Oxford and Cambridge universities

The perceived failure of Oxbridge to admit more BAME students and the lack of diversity in its student body is raised annually by Labour MP, David Lammy. Although his concerns include an allegation of systematic 'apartheid' against poor socio-economic communities, most of his criticisms centre on the low admission rates for black UK students and as a result he has become (unfairly) something of a cheerleader for accusations of racial bias in higher education. David Lammy is not alone in his criticisms. In 2011, the then (Conservative) Prime Minister, David Cameron, himself an Oxford alumnus, said that he found it '*disgraceful that only one black UK student began a course at Oxford University in 2009*'. Downing Street supported the PM's remarks but the data were demonstrably wrong. While it was true that only one UK Oxford undergraduate admitted in 2009 identified as 'Black-Caribbean', Cameron ignored a further 26 UK undergraduate students that year who identified as 'Black-African' and 'Black-Other' (BBC, 2011). And therein lies the problem. One of the reasons the topic is so hotly disputed is that the facts are unclear and open to many interpretations. Oxford, for example, 'refuses to publish a detailed breakdown of undergraduate offers by ethnicity' and 'instead publishes only a narrow set of data showing White and Black offers, ignoring Asian, mixed or other ethnic groups' (Adams, 2017). Ironically, given that Lammy, Cameron and others themselves aggregated the 2009 Black–BAME admissions, they express themselves '*disappointed that Cambridge university combines all black people together into one group*' (Lammy, cited in Adams & Bengtsson, 2017). They are correct that granularity is desirable when trying to interrogate ethnicity data, but in the 2009 case above the admissions data were being used selectively and unfairly. Samina Khan, director of undergraduate admissions and outreach at Oxford University, 'sees a very different picture':

> *If you look at the data correctly and properly, you'll find poor students who get three As or more are more likely to get into Oxford than if you're a more well-off student. It's a question of proportion more than looking at the raw numbers*. (cited in Adams & Bengtsson, 2017)

Other spokespersons have suggested that the data needs to be interrogated at the level of academic subject:

> Differences in success rates between ethnic groups are something we are continuing to examine carefully for possible explanations. We do know that a tendency by students from certain ethnic groups to apply disproportionately for the most competitive subjects reduces the success rate of those ethnic groups overall. (Paton, 2013).

This is particularly important in the case of black students at Oxbridge, a disproportionate number of whom apply for the most over-subscribed subjects:

> Oxford's three most competitive courses (Economics & Management, Medicine and Maths) account for 44% of all black applicants, compared to just 17% of all white applicants. 28.8% of all black applicants for 2009 applied for Medicine, compared to just 7% of all white applicants. 10.4% of all black applicants for 2009 applied for Economics & Management, compared to just 3.6% of white applicants. (Collier & Wintersgill, 2013)

A spokeswoman for Oxford explained:

> *Black students apply disproportionately for the most over-subscribed subjects, contributing to a lower than average success rate for the group as a whole. That means nearly half of black applicants are applying for the same three subjects . . . the three toughest subjects to get places in. . . . This goes a very long way towards explaining the group's overall lower success rate.* (cited in Collier & Wintersgill, 2013)

Stephen Tall (2011), former editor of *Liberal Democrat Voice* and development director for the Education Endowment Foundation, reiterated the point that the data needs to be looked at in terms of relative school attainment:

> *In 2009, 29,000 white students got the requisite grades for Oxford compared to just 452 black students. Knowsley in Merseyside, for instance, which Mr Lammy cites as failing to get students into Oxford and Cambridge, is the worst area in England for school achievement. In 2009 only 212 students in all of Knowlsey took three A levels—of these, only three (1.4%) achieved AAA or better. Of those three, two got offers from Oxford. That's a pretty outstanding success rate. And the area of the country with the highest Oxford success rate is Darlington in the north-east*. (Tall, 2011)

And Collier and Wintersgill (2013) reach a similar conclusion from their analysis of Universities and Colleges Admissions Service (UCAS) data:

> *In 2010, more than 32,000 UK white students got AAA or better at A-level (excluding General Studies) and around 29.2% of them applied to Oxford; 795 black students got AAA or better and more than 40% of them applied to Oxford.*

David Lammy and other members of parliament are not swayed by these subtleties and maintain that it is 'not good enough' for universities to blame subject-bias or school performance (Heffer, 2017). They remain adamant that Oxford and Cambridge are 'fiefdoms of entrenched privilege and the last bastions of the old school tie' (Richardson, 2017), and more than 100 MPs have written to the heads of Oxford and Cambridge universities calling for urgent reforms in admissions. For these public representatives, the controversy is about the admission of UK/Home students—the data reveals, as Lammy rightly points out, a 'stark regional and socio-economic divide in intake' (Adams & Bengtsson, 2017; Burns, 2018)—but the underpinning problem of data interpretation comes from the fact that there is no single metric for gauging what is being discussed. Whether the population in question is UK/Home undergraduates or the entire Home and Overseas student body more broadly, the issue remains that we need a single measure of ethnic diversity before we can interpret the data. And we need to be able to measure *trends* in the data in light of claims made that Oxbridge is 'actually moving backwards in terms of elitism' (Richardson, 2017). The indices developed in Part 1 of this article can address these issues, although of course the fundamental reasons behind potential black or BAME under-achievement/under-recruitment is a problem of policy and politics, rather than of measurement.

The analysis below comes in two phases:

- Firstly, it examines data on the *nationality*[8] of undergraduates admitted to Oxford and Cambridge universities over the decade from 2007 to 2016. Diversity indices are then applied to that data to see whether the universities are making improvements in terms of recruitment.

- Secondly, we look at Oxford *ethnicity* data on *UK/Home* admissions—the same data is not available for Cambridge—to see whether Oxford is under-recruiting BAME undergraduates *from the UK*.

Together, the analyses give the most complete picture yet of Oxbridge admissions and go some way towards resolving the recurring controversy.

Table 2a–e shows Oxford undergraduate offers by nationality, for the 10 years from 2007 to 2016, and Table 3a–e shows Cambridge undergraduate offers for the same period. The data refers to 'offers' rather than 'acceptances' because this captures the willingness of Oxbridge to accept applicants. Acceptances run at nearly 100% of offers at Oxbridge and the occasional case of an applicant failing to get the stipulated grades or refusing the offer does not negate the university's willingness to accept the applicant.

We have chosen to look at the entire undergraduate student body and not just students with UK/Home fee status, and for the sake of brevity, zero rows (for countries with no offers) have been removed.

Oxford numbers refer to the annual intake of undergraduates (e.g. 3,428 in 2007 and 3,648 in 2016), whereas Cambridge numbers refer to the total number of students *in statu pupillari* that year (e.g. 11,807 in 2007 and 11,811 in 2016). The data for Cambridge is therefore rolling trend data, but since the purpose of the analysis is not to compare the two universities, which would be problematic in any case for structural reasons, but rather to examine diversity trends in admissions over time for each university, this difference in the way the data are compiled is not important.

Data on UK/Home offers (the penultimate row) was compiled by adding up all the individual Local Authority numbers from UCAS data.

Table 4 contains the calculation of the nationality indices for Oxford and Table 5 shows the calculation of the same nationality indices for Cambridge.

Figure 1 shows Oxford's nationality indices trend in the period 2007–2016, and Figure 2 shows the trend for Cambridge. Figure 3 shows the true Shannon indices trend for both universities. They are shown in a separate figure for reasons of scale.

Bearing in mind that a decrease in the Simpson index represents an increase in diversity, it is clear from all three figures that diversity, as measured by nationality, has increased significantly over the 10-year period. For example, using true Shannon, Cambridge is 27% more diverse than it was 10 years ago, and Oxford is 32% more diverse. Using the Shannon index, the respective increases are 22% for Cambridge and 30% for Oxford. This is not to say, for reasons explained already, that Oxford is more diverse than Cambridge, but it is clear that both universities are much more diverse than they were a decade ago.

Does this address the concerns and allegations of politicians? Well, not completely because, to be fair, David Lammy's point is that Oxbridge is under-recruiting *UK/Home* BAME students. So, we will now look at ethnicity data *for the UK only* and put that alongside the (whole undergraduate student cohort) 'nationality data' above to get a more complete picture of Oxbridge admissions diversity. Ethnicity data is not publicly available for Cambridge University, but is available for Oxford (Oxford Public Tableau, 2018b) and it is shown in Table 6a–e for undergraduate admissions in the decade 2007–2016. Table 7 shows the calculation of the indices for the dataset.

Table 2a. Oxford UG offers by nationality, 2007 and 2008

Country (nationality)	2007	% pop., p	p^2	ln(p)	p.ln(p)	2008	% pop., p	p^2	ln(p)	p.ln(p)
Argentina	1	0.0003	0.0000	−8.1397	−0.0024	0	0.0000	0.0000	0.0000	0.0000
Armenia	2	0.0006	0.0000	−7.4466	−0.0043	0	0.0000	0.0000	0.0000	0.0000
Australia	5	0.0015	0.0000	−6.5303	−0.0095	11	0.0032	0.0000	−5.7557	−0.0182
Austria	6	0.0018	0.0000	−6.3480	−0.0111	6	0.0017	0.0000	−6.3619	−0.0110
Bahamas	1	0.0003	0.0000	−8.1397	−0.0024	0	0.0000	0.0000	0.0000	0.0000
Bahrain	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1536	−0.0023
Bangladesh	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1536	−0.0023
Belgium	7	0.0020	0.0000	−6.1938	−0.0126	2	0.0006	0.0000	−7.4605	−0.0043
Brunei	3	0.0009	0.0000	−7.0411	−0.0062	2	0.0006	0.0000	−7.4605	−0.0043
Bulgaria	2	0.0006	0.0000	−7.4466	−0.0043	5	0.0014	0.0000	−6.5442	−0.0094
Cameroon	1	0.0003	0.0000	−8.1397	−0.0024	0	0.0000	0.0000	0.0000	0.0000
Canada	4	0.0012	0.0000	−6.7534	−0.0079	13	0.0037	0.0000	−5.5887	−0.0209
Cayman Is.	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0.0000
Chile	1	0.0003	0.0000	−8.1397	−0.0024	1	0.0003	0.0000	−8.1536	−0.0023
China	77	0.0225	0.0005	−3.7959	−0.0853	59	0.0170	0.0003	−4.0761	−0.0692
Cyprus	1	0.0003	0.0000	−8.1397	−0.0024	5	0.0014	0.0000	−6.5442	−0.0094
Czech Rep.	3	0.0009	0.0000	−7.0411	−0.0062	1	0.0003	0.0000	−8.1536	−0.0023
Denmark	2	0.0006	0.0000	−7.4466	−0.0043	7	0.0020	0.0000	−6.2077	−0.0125
Egypt	1	0.0003	0.0000	−8.1397	−0.0024	0	0.0000	0.0000	0.0000	0.0000
Estonia	1	0.0003	0.0000	−8.1397	−0.0024	4	0.0012	0.0000	−6.7673	−0.0078
Finland	5	0.0015	0.0000	−6.5303	−0.0095	4	0.0012	0.0000	−6.7673	−0.0078
France	26	0.0076	0.0001	−4.8816	−0.0370	27	0.0078	0.0001	−4.8578	−0.0377
Germany	55	0.0160	0.0003	−4.1324	−0.0663	71	0.0204	0.0004	−3.8910	−0.0795
Gibraltar	2	0.0006	0.0000	−7.4466	−0.0043	0	0.0000	0.0000	0.0000	0.0000
Greece	6	0.0018	0.0000	−6.3480	−0.0111	5	0.0014	0.0000	−6.5442	−0.0094
Guatemala	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1536	−0.0023
Hong Kong	49	0.0143	0.0002	−4.2479	−0.0607	42	0.0121	0.0001	−4.4160	−0.0534
Hungary	1	0.0003	0.0000	−8.1397	−0.0024	1	0.0003	0.0000	−8.1536	−0.0023
Iceland	1	0.0003	0.0000	−8.1397	−0.0024	0	0.0000	0.0000	0.0000	0.0000
India	9	0.0026	0.0000	−5.9425	−0.0156	5	0.0014	0.0000	−6.5442	−0.0094
Indonesia	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1536	−0.0023
Iran	1	0.0003	0.0000	−8.1397	−0.0024	0	0.0000	0.0000	0.0000	0.0000
Ireland	2	0.0006	0.0000	−7.4466	−0.0043	4	0.0012	0.0000	−6.7673	−0.0078
Israel	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1536	−0.0023
Italy	7	0.0020	0.0000	−6.1938	−0.0126	6	0.0017	0.0000	−6.3619	−0.0110
Jamaica	1	0.0003	0.0000	−8.1397	−0.0024	0	0.0000	0.0000	0.0000	0.0000
Japan	5	0.0015	0.0000	−6.5303	−0.0095	2	0.0006	0.0000	−7.4605	−0.0043
Kazakhstan	1	0.0003	0.0000	−8.1397	−0.0024	1	0.0003	0.0000	−8.1536	−0.0023
Kenya	1	0.0003	0.0000	−8.1397	−0.0024	2	0.0006	0.0000	−7.4605	−0.0043
Latvia	4	0.0012	0.0000	−6.7534	−0.0079	2	0.0006	0.0000	−7.4605	−0.0043
Lebanon	1	0.0003	0.0000	−8.1397	−0.0024	0	0.0000	0.0000	0.0000	0.0000
Lithuania	0	0.0000	0.0000	0.0000	0.0000	4	0.0012	0.0000	−6.7673	−0.0078
Luxemburg	2	0.0006	0.0000	−7.4466	−0.0043	5	0.0014	0.0000	−6.5442	−0.0094
Malaysia	8	0.0023	0.0000	−6.0603	−0.0141	17	0.0049	0.0000	−5.3204	−0.0260
Mauritius	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1536	−0.0023
Mexico	1	0.0003	0.0000	−8.1397	−0.0024	0	0.0000	0.0000	0.0000	0.0000
Moldova	2	0.0006	0.0000	−7.4466	−0.0043	1	0.0003	0.0000	−8.1536	−0.0023
Monaco	1	0.0003	0.0000	−8.1397	−0.0024	0	0.0000	0.0000	0.0000	0.0000
Nepal	2	0.0006	0.0000	−7.4466	−0.0043	0	0.0000	0.0000	0.0000	0.0000
Netherlands	8	0.0023	0.0000	−6.0603	−0.0141	6	0.0017	0.0000	−6.3619	−0.0110
New Zealand	0	0.0000	0.0000	0.0000	0.0000	4	0.0012	0.0000	−6.7673	−0.0078
Norway	3	0.0009	0.0000	−7.0411	−0.0062	1	0.0003	0.0000	−8.1536	−0.0023
Pakistan	9	0.0026	0.0000	−5.9425	−0.0156	15	0.0043	0.0000	−5.4456	−0.0235

Table 2a. (Continued)

Country (nationality)	2007	% pop., p	p^2	ln(p)	p.ln(p)	2008	% pop., p	p^2	ln(p)	p.ln(p)
Poland	26	0.0076	0.0001	−4.8816	−0.0370	28	0.0081	0.0001	−4.8214	−0.0388
Portugal	1	0.0003	0.0000	−8.1397	−0.0024	1	0.0003	0.0000	−8.1536	−0.0023
Romania	3	0.0009	0.0000	−7.0411	−0.0062	5	0.0014	0.0000	−6.5442	−0.0094
Russia	0	0.0000	0.0000	0.0000	0.0000	2	0.0006	0.0000	−7.4605	−0.0043
Serbia & M.	2	0.0006	0.0000	−7.4466	−0.0043	0	0.0000	0.0000	0.0000	0.0000
Singapore	34	0.0099	0.0001	−4.6134	−0.0458	56	0.0161	0.0003	−4.1283	−0.0665
Slovakia	0	0.0000	0.0000	0.0000	0.0000	4	0.0012	0.0000	−6.7673	−0.0078
Slovenia	2	0.0006	0.0000	−7.4466	−0.0043	2	0.0006	0.0000	−7.4605	−0.0043
South Africa	1	0.0003	0.0000	−8.1397	−0.0024	3	0.0009	0.0000	−7.0550	−0.0061
South Korea	5	0.0015	0.0000	−6.5303	−0.0095	6	0.0017	0.0000	−6.3619	−0.0110
Spain	4	0.0012	0.0000	−6.7534	−0.0079	5	0.0014	0.0000	−6.5442	−0.0094
Sri Lanka	2	0.0006	0.0000	−7.4466	−0.0043	2	0.0006	0.0000	−7.4605	−0.0043
Sweden	12	0.0035	0.0000	−5.6548	−0.0198	11	0.0032	0.0000	−5.7557	−0.0182
Switzerland	10	0.0029	0.0000	−5.8371	−0.0170	11	0.0032	0.0000	−5.7557	−0.0182
Tanzania	1	0.0003	0.0000	−8.1397	−0.0024	0	0.0000	0.0000	0.0000	0.0000
Thailand	5	0.0015	0.0000	−6.5303	−0.0095	5	0.0014	0.0000	−6.5442	−0.0094
Trinidad & T.	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1536	−0.0023
Tunisia	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0.0000
Turkey	1	0.0003	0.0000	−8.1397	−0.0024	4	0.0012	0.0000	−6.7673	−0.0078
UAE	2	0.0006	0.0000	−7.4466	−0.0043	1	0.0003	0.0000	−8.1536	−0.0023
Ukraine	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1536	−0.0023
USA & Terr.	58	0.0169	0.0003	−4.0793	−0.0690	54	0.0155	0.0002	−4.1647	−0.0647
Vietnam	1	0.0003	0.0000	−8.1397	−0.0024	0	0.0000	0.0000	0.0000	0.0000
Zimbabwe	1	0.0003	0.0000	−8.1397	−0.0024	0	0.0000	0.0000	0.0000	0.0000
UK	2926	0.8536	0.7286	−0.1583	−0.1352	2927	0.8421	0.7091	−0.1719	−0.1448
TOTAL	3428	1.0000	0.7301		0.8804	3476	1.0000	0.7107		0.9438

Note: Zero rows have been removed
Source: Oxford Public Tableau, 2018a.

The trends are shown in the usual way in Figure 4 and Figure 5. Once again, the true Shannon is shown on a separate figure for reasons of scaling.

As was the case with the 'nationality indices', the 'ethnicity indices' show a significant increase in diversity. That increase is not as marked for ethnicity as it is for nationality when measured by the Shannon (22% for ethnicity vs 32% for nationality), but is slightly *more* marked in the case of Shannon (31% for ethnicity vs 30% for nationality). All the indices show a significant increase in diversity, especially in the years 2012–2016, a period of Conservative–Liberal (2010–2015) and Conservative-only (2015 et seq.) government.

Discussion and conclusion

Legitimate concerns have been expressed in the UK and elsewhere about widening participation at elite universities like Oxford and Cambridge, especially in the 'Black UK (Home)' category. Rightly so: white students are twice as likely to gain a place as their black counterparts; more than one in four Oxford colleges failed to admit a single black student between 2015 and 2017 (Horton, 2018); six of Cambridge's 29 undergraduate colleges admitted fewer than 10 black British students in 5 years

Table 2b. Oxford UG offers by nationality, 2009 and 2010

Country (nationality)	2009	% pop., p	p^2	ln(p)	p.ln(p)	2010	% pop., p	p^2	ln(p)	p.ln(p)
Albania	1	0.0003	0.0000	−8.1639	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Argentina	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1716	−0.0023
Australia	15	0.0043	0.0000	−5.4559	−0.0233	10	0.0028	0.0000	−5.8690	−0.0166
Austria	4	0.0011	0.0000	−6.7776	−0.0077	5	0.0014	0.0000	−6.5622	−0.0093
Azerbaijan	2	0.0006	0.0000	−7.4708	−0.0043	0	0.0000	0.0000	0.0000	0.0000
Bahamas	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1716	−0.0023
Bangladesh	1	0.0003	0.0000	−8.1639	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Belarus	0	0.0000	0.0000	0.0000	0.0000	2	0.0006	0.0000	−7.4785	−0.0042
Belgium	8	0.0023	0.0000	−6.0845	−0.0139	8	0.0023	0.0000	−6.0922	−0.0138
Bermuda	1	0.0003	0.0000	−8.1639	−0.0023	1	0.0003	0.0000	−8.1716	−0.0023
Brazil	1	0.0003	0.0000	−8.1639	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Brunei	1	0.0003	0.0000	−8.1639	−0.0023	1	0.0003	0.0000	−8.1716	−0.0023
Bulgaria	6	0.0017	0.0000	−6.3722	−0.0109	13	0.0037	0.0000	−5.6067	−0.0206
Canada	18	0.0051	0.0000	−5.2736	−0.0270	9	0.0025	0.0000	−5.9744	−0.0152
Cayman Is.	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1716	−0.0023
China	58	0.0165	0.0003	−4.1035	−0.0678	86	0.0243	0.0006	−3.7173	−0.0903
Croatia	2	0.0006	0.0000	−7.4708	−0.0043	1	0.0003	0.0000	−8.1716	−0.0023
Cyprus	2	0.0006	0.0000	−7.4708	−0.0043	3	0.0008	0.0000	−7.0730	−0.0060
Czech Rep.	4	0.0011	0.0000	−6.7776	−0.0077	1	0.0003	0.0000	−8.1716	−0.0023
Denmark	3	0.0009	0.0000	−7.0653	−0.0060	6	0.0017	0.0000	−6.3798	−0.0108
Dominica	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1716	−0.0023
Egypt	1	0.0003	0.0000	−8.1639	−0.0023	2	0.0006	0.0000	−7.4785	−0.0042
Estonia	3	0.0009	0.0000	−7.0653	−0.0060	0	0.0000	0.0000	0.0000	0.0000
Finland	6	0.0017	0.0000	−6.3722	−0.0109	4	0.0011	0.0000	−6.7853	−0.0077
France	18	0.0051	0.0000	−5.2736	−0.0270	17	0.0048	0.0000	−5.3384	−0.0256
Germany	51	0.0145	0.0002	−4.2321	−0.0615	52	0.0147	0.0002	−4.2204	−0.0620
Gibraltar	1	0.0003	0.0000	−8.1639	−0.0023	3	0.0008	0.0000	−7.0730	−0.0060
Greece	9	0.0026	0.0000	−5.9667	−0.0153	3	0.0008	0.0000	−7.0730	−0.0060
Hong Kong	39	0.0111	0.0001	−4.5004	−0.0500	32	0.0090	0.0001	−4.7059	−0.0426
Hungary	4	0.0011	0.0000	−6.7776	−0.0077	3	0.0008	0.0000	−7.0730	−0.0060
India	25	0.0071	0.0001	−4.9451	−0.0352	9	0.0025	0.0000	−5.9744	−0.0152
Indonesia	1	0.0003	0.0000	−8.1639	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Iran	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1716	−0.0023
Ireland	7	0.0020	0.0000	−6.2180	−0.0124	10	0.0028	0.0000	−5.8690	−0.0166
Israel	2	0.0006	0.0000	−7.4708	−0.0043	0	0.0000	0.0000	0.0000	0.0000
Italy	9	0.0026	0.0000	−5.9667	−0.0153	14	0.0040	0.0000	−5.5325	−0.0219
Japan	4	0.0011	0.0000	−6.7776	−0.0077	1	0.0003	0.0000	−8.1716	−0.0023
Jordan	0	0.0000	0.0000	0.0000	0.0000	2	0.0006	0.0000	−7.4785	−0.0042
Kazakhstan	1	0.0003	0.0000	−8.1639	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Kenya	1	0.0003	0.0000	−8.1639	−0.0023	1	0.0003	0.0000	−8.1716	−0.0023
Latvia	1	0.0003	0.0000	−8.1639	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Lithuania	2	0.0006	0.0000	−7.4708	−0.0043	3	0.0008	0.0000	−7.0730	−0.0060
Luxemburg	5	0.0014	0.0000	−6.5545	−0.0093	0	0.0000	0.0000	0.0000	0.0000
Macedonia	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1716	−0.0023
Malawi	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1716	−0.0023
Malaysia	12	0.0034	0.0000	−5.6790	−0.0194	10	0.0028	0.0000	−5.8690	−0.0166
Mauritius	3	0.0009	0.0000	−7.0653	−0.0060	2	0.0006	0.0000	−7.4785	−0.0042
Moldova	1	0.0003	0.0000	−8.1639	−0.0023	1	0.0003	0.0000	−8.1716	−0.0023
Monaco	3	0.0009	0.0000	−7.0653	−0.0060	0	0.0000	0.0000	0.0000	0.0000
Myanmar	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1716	−0.0023
Namibia	1	0.0003	0.0000	−8.1639	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Netherlands	15	0.0043	0.0000	−5.4559	−0.0233	13	0.0037	0.0000	−5.6067	−0.0206
New Zealand	2	0.0006	0.0000	−7.4708	−0.0043	2	0.0006	0.0000	−7.4785	−0.0042

Table 2b. (Continued)

Country (nationality)	2009	% pop., p	p^2	ln(p)	p.ln(p)	2010	% pop., p	p^2	ln(p)	p.ln(p)
Nigeria	1	0.0003	0.0000	−8.1639	−0.0023	7	0.0020	0.0000	−6.2257	−0.0123
Norway	3	0.0009	0.0000	−7.0653	−0.0060	6	0.0017	0.0000	−6.3798	−0.0108
Pakistan	3	0.0009	0.0000	−7.0653	−0.0060	9	0.0025	0.0000	−5.9744	−0.0152
Poland	21	0.0060	0.0000	−5.1194	−0.0306	29	0.0082	0.0001	−4.8043	−0.0394
Portugal	0	0.0000	0.0000	0.0000	0.0000	3	0.0008	0.0000	−7.0730	−0.0060
Puerto Rico	1	0.0003	0.0000	−8.1639	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Qatar	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1716	−0.0023
Romania	13	0.0037	0.0000	−5.5990	−0.0207	9	0.0025	0.0000	−5.9744	−0.0152
Russia	2	0.0006	0.0000	−7.4708	−0.0043	2	0.0006	0.0000	−7.4785	−0.0042
Serbia & M.	1	0.0003	0.0000	−8.1639	−0.0023	2	0.0006	0.0000	−7.4785	−0.0042
Sierra Leone	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0.0000
Singapore	60	0.0171	0.0003	−4.0696	−0.0695	66	0.0186	0.0003	−3.9819	−0.0743
Slovakia	2	0.0006	0.0000	−7.4708	−0.0043	5	0.0014	0.0000	−6.5622	−0.0093
Slovenia	1	0.0003	0.0000	−8.1639	−0.0023	1	0.0003	0.0000	−8.1716	−0.0023
South Africa	2	0.0006	0.0000	−7.4708	−0.0043	0	0.0000	0.0000	0.0000	0.0000
South Korea	18	0.0051	0.0000	−5.2736	−0.0270	17	0.0048	0.0000	−5.3384	−0.0256
Spain	8	0.0023	0.0000	−6.0845	−0.0139	8	0.0023	0.0000	−6.0922	−0.0138
Sri Lanka	2	0.0006	0.0000	−7.4708	−0.0043	0	0.0000	0.0000	0.0000	0.0000
Sweden	7	0.0020	0.0000	−6.2180	−0.0124	13	0.0037	0.0000	−5.6067	−0.0206
Switzerland	12	0.0034	0.0000	−5.6790	−0.0194	11	0.0031	0.0000	−5.7737	−0.0179
Taiwan	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1716	−0.0023
Tanzania	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0.0000
Thailand	6	0.0017	0.0000	−6.3722	−0.0109	10	0.0028	0.0000	−5.8690	−0.0166
Trinidad & T.	3	0.0009	0.0000	−7.0653	−0.0060	1	0.0003	0.0000	−8.1716	−0.0023
Tunisia	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0.0000
Turkey	2	0.0006	0.0000	−7.4708	−0.0043	1	0.0003	0.0000	−8.1716	−0.0023
UAE	1	0.0003	0.0000	−8.1639	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Ukraine	1	0.0003	0.0000	−8.1639	−0.0023	1	0.0003	0.0000	−8.1716	−0.0023
Uruguay	1	0.0003	0.0000	−8.1639	−0.0023	0	0.0000	0.0000	0.0000	0.0000
USA & Terr.	59	0.0168	0.0003	−4.0864	−0.0686	66	0.0186	0.0003	−3.9819	−0.0743
Vietnam	1	0.0003	0.0000	−8.1639	−0.0023	6	0.0017	0.0000	−6.3798	−0.0108
UK	2927	0.8334	0.6946	−0.1822	−0.1519	2926	0.8268	0.6836	−0.1902	−0.1573
Total	3512	1.0000	0.6961		1.0161	3539	1.0000	0.6854		1.0326

Note: Zero rows have been removed
Source: Oxford Public Tableau, 2018a.

(Diver, 2018). Concerns have also been expressed about the opaque attitude of the two universities to their admissions data. In 2018, for example, Cambridge revealed to the *Financial Times*, following a freedom of information request, that 'Magdalene College received 40 applications from black British students in the period 2012–2016 but only made *between three and nine offers*' [emphasis added]. The data were 'released *as a range* because otherwise the small numbers would mean that the anonymity of applicants would have been compromised' (Diver, 2018). Whose anonymity could possibly be compromised in this context is baffling and irritating to public representatives. As David Lammy rightly said:

> We need transparency if we are going to have progress on access to our elite institutions for students from disadvantaged and under-represented backgrounds. (Diver, 2018)

The problem of analysing how much Oxbridge has done (or not done) to improve admissions from disadvantaged and under-represented backgrounds is partly a

Table 2c. Oxford UG offers by nationality, 2011 and 2012

Country (nationality)	2011	% pop., p	p^2	ln(p)	p.ln(p)	2012	% pop., p	p^2	ln(p)	p.ln(p)
Argentina	2	0.0006	0.0000	−7.4665	−0.0043	0	0.0000	0.0000	0.0000	0.0000
Australia	17	0.0049	0.0000	−5.3264	−0.0259	21	0.0060	0.0000	−5.1231	−0.0305
Austria	5	0.0014	0.0000	−6.5502	−0.0094	6	0.0017	0.0000	−6.3759	−0.0109
Bangladesh	1	0.0003	0.0000	−8.1597	−0.0023	1	0.0003	0.0000	−8.1676	−0.0023
Belarus	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1676	−0.0023
Belgium	6	0.0017	0.0000	−6.3679	−0.0109	5	0.0014	0.0000	−6.5582	−0.0093
Bermuda	0	0.0000	0.0000	0.0000	0.0000	3	0.0009	0.0000	−7.0690	−0.0060
Bosnia-Her.	3	0.0009	0.0000	−7.0610	−0.0061	0	0.0000	0.0000	0.0000	0.0000
Brazil	1	0.0003	0.0000	−8.1597	−0.0023	1	0.0003	0.0000	−8.1676	−0.0023
Bulgaria	7	0.0020	0.0000	−6.2138	−0.0124	8	0.0023	0.0000	−6.0882	−0.0138
Canada	12	0.0034	0.0000	−5.6748	−0.0195	4	0.0011	0.0000	−6.7813	−0.0077
China	75	0.0214	0.0005	−3.8422	−0.0824	98	0.0278	0.0008	−3.5827	−0.0996
Croatia	1	0.0003	0.0000	−8.1597	−0.0023	1	0.0003	0.0000	−8.1676	−0.0023
Cyprus	0	0.0000	0.0000	0.0000	0.0000	3	0.0009	0.0000	−7.0690	−0.0060
Czech Rep.	10	0.0029	0.0000	−5.8571	−0.0167	4	0.0011	0.0000	−6.7813	−0.0077
Denmark	7	0.0020	0.0000	−6.2138	−0.0124	4	0.0011	0.0000	−6.7813	−0.0077
Ecuador	1	0.0003	0.0000	−8.1597	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Egypt	1	0.0003	0.0000	−8.1597	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Estonia	5	0.0014	0.0000	−6.5502	−0.0094	0	0.0000	0.0000	0.0000	0.0000
Finland	7	0.0020	0.0000	−6.2138	−0.0124	2	0.0006	0.0000	−7.4745	−0.0042
France	20	0.0057	0.0000	−5.1639	−0.0295	22	0.0062	0.0000	−5.0766	−0.0317
Germany	53	0.0152	0.0002	−4.1894	−0.0635	45	0.0128	0.0002	−4.3610	−0.0557
Gibraltar	1	0.0003	0.0000	−8.1597	−0.0023	2	0.0006	0.0000	−7.4745	−0.0042
Greece	2	0.0006	0.0000	−7.4665	−0.0043	5	0.0014	0.0000	−6.5582	−0.0093
Hong Kong	37	0.0106	0.0001	−4.5487	−0.0481	49	0.0139	0.0002	−4.2758	−0.0594
Hungary	2	0.0006	0.0000	−7.4665	−0.0043	2	0.0006	0.0000	−7.4745	−0.0042
India	13	0.0037	0.0000	−5.5947	−0.0208	15	0.0043	0.0000	−5.4596	−0.0232
Indonesia	4	0.0011	0.0000	−6.7734	−0.0077	3	0.0009	0.0000	−7.0690	−0.0060
Ireland	9	0.0026	0.0000	−5.9624	−0.0153	4	0.0011	0.0000	−6.7813	−0.0077
Israel	0	0.0000	0.0000	0.0000	0.0000	2	0.0006	0.0000	−7.4745	−0.0042
Italy	13	0.0037	0.0000	−5.5947	−0.0208	5	0.0014	0.0000	−6.5582	−0.0093
Jamaica	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1676	−0.0023
Japan	1	0.0003	0.0000	−8.1597	−0.0023	4	0.0011	0.0000	−6.7813	−0.0077
Kazakhstan	0	0.0000	0.0000	0.0000	0.0000	2	0.0006	0.0000	−7.4745	−0.0042
Kenya	1	0.0003	0.0000	−8.1597	−0.0023	2	0.0006	0.0000	−7.4745	−0.0042
Latvia	0	0.0000	0.0000	0.0000	0.0000	2	0.0006	0.0000	−7.4745	−0.0042
Lithuania	2	0.0006	0.0000	−7.4665	−0.0043	1	0.0003	0.0000	−8.1676	−0.0023
Luxemburg	3	0.0009	0.0000	−7.0610	−0.0061	4	0.0011	0.0000	−6.7813	−0.0077
Macedonia	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1676	−0.0023
Malaysia	12	0.0034	0.0000	−5.6748	−0.0195	22	0.0062	0.0000	−5.0766	−0.0317
Malta	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1676	−0.0023
Mauritius	4	0.0011	0.0000	−6.7734	−0.0077	5	0.0014	0.0000	−6.5582	−0.0093
Moldova	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1676	−0.0023
Monaco	1	0.0003	0.0000	−8.1597	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Myanmar	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1676	−0.0023
Netherlands	12	0.0034	0.0000	−5.6748	−0.0195	18	0.0051	0.0000	−5.2773	−0.0269
New Zealand	5	0.0014	0.0000	−6.5502	−0.0094	1	0.0003	0.0000	−8.1676	−0.0023
Nicaragua	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1676	−0.0023
Nigeria	3	0.0009	0.0000	−7.0610	−0.0061	1	0.0003	0.0000	−8.1676	−0.0023
Norway	5	0.0014	0.0000	−6.5502	−0.0094	3	0.0009	0.0000	−7.0690	−0.0060
Pakistan	14	0.0040	0.0000	−5.5206	−0.0221	4	0.0011	0.0000	−6.7813	−0.0077
Philippines	1	0.0003	0.0000	−8.1597	−0.0023	1	0.0003	0.0000	−8.1676	−0.0023
Poland	22	0.0063	0.0000	−5.0686	−0.0319	20	0.0057	0.0000	−5.1719	−0.0293

Table 2c. (Continued)

Country (nationality)	2011	% pop., p	p^2	ln(p)	p.ln(p)	2012	% pop., p	p^2	ln(p)	p.ln(p)
Portugal	2	0.0006	0.0000	−7.4665	−0.0043	2	0.0006	0.0000	−7.4745	−0.0042
Romania	21	0.0060	0.0000	−5.1151	−0.0307	16	0.0045	0.0000	−5.3950	−0.0245
Russia	1	0.0003	0.0000	−8.1597	−0.0023	4	0.0011	0.0000	−6.7813	−0.0077
Saudi Arabia	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1676	−0.0023
Serbia & M.	2	0.0006	0.0000	−7.4665	−0.0043	1	0.0003	0.0000	−8.1676	−0.0023
Singapore	61	0.0174	0.0003	−4.0488	−0.0706	74	0.0210	0.0004	−3.8636	−0.0811
Slovakia	5	0.0014	0.0000	−6.5502	−0.0094	4	0.0011	0.0000	−6.7813	−0.0077
Slovenia	3	0.0009	0.0000	−7.0610	−0.0061	3	0.0009	0.0000	−7.0690	−0.0060
South Africa	1	0.0003	0.0000	−8.1597	−0.0023	0	0.0000	0.0000	0.0000	0.0000
South Korea	17	0.0049	0.0000	−5.3264	−0.0259	17	0.0048	0.0000	−5.3344	−0.0257
Spain	8	0.0023	0.0000	−6.0802	−0.0139	15	0.0043	0.0000	−5.4596	−0.0232
Sri Lanka	1	0.0003	0.0000	−8.1597	−0.0023	1	0.0003	0.0000	−8.1676	−0.0023
Sweden	13	0.0037	0.0000	−5.5947	−0.0208	12	0.0034	0.0000	−5.6827	−0.0193
Switzerland	8	0.0023	0.0000	−6.0802	−0.0139	8	0.0023	0.0000	−6.0882	−0.0138
Taiwan	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1676	−0.0023
Tanzania	0	0.0000	0.0000	0.0000	0.0000	2	0.0006	0.0000	−7.4745	−0.0042
Thailand	7	0.0020	0.0000	−6.2138	−0.0124	5	0.0014	0.0000	−6.5582	−0.0093
Trinidad & T.	1	0.0003	0.0000	−8.1597	−0.0023	1	0.0003	0.0000	−8.1676	−0.0023
Turkey	2	0.0006	0.0000	−7.4665	−0.0043	4	0.0011	0.0000	−6.7813	−0.0077
UAE	4	0.0011	0.0000	−6.7734	−0.0077	2	0.0006	0.0000	−7.4745	−0.0042
Ukraine	2	0.0006	0.0000	−7.4665	−0.0043	3	0.0009	0.0000	−7.0690	−0.0060
USA & Terr.	53	0.0152	0.0002	−4.1894	−0.0635	50	0.0142	0.0002	−4.2556	−0.0604
Venezuela	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1676	−0.0023
Vietnam	3	0.0009	0.0000	−7.0610	−0.0061	4	0.0011	0.0000	−6.7813	−0.0077
Zimbabwe	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1676	−0.0023
UK	2881	0.8238	0.6787	−0.1938	−0.1596	2881	0.8173	0.6680	−0.2017	−0.1649
Total	3497	1.0000	0.6804		1.0624	3525	1.0000	0.6701		1.0841

Note: Zero rows have been removed
Source: Oxford Public Tableau, 2018a.

problem of nomenclature and partly a consequence of confused discourse. Conflating 'black' with 'BAME', for example, distracts from legitimate concerns about other (non-black) BAME and non-BAME ethnic categories, and from BAME overall. The full spectrum of ethnicities needs to be analysed: only then can we be assured that Oxbridge is making genuine efforts to attract the best and brightest from all sections of society. And of course, the issue of ethnicity is anyway compounded by possible discrimination against applicants from low socio-economic backgrounds. In Oxford, for example, those who grow up in the richer south of England are much more likely to gain admission than their poorer northern counterparts (Horton, 2018). As a consequence, the discourse around Oxbridge admissions is confused and confusing for policy-makers and the public, and the core issues are seldom if ever teased out. For example, calls 'for parents and schools to help boost the number of under-represented minorities' (Diver, 2018) are frequently made, but the issue of quotas for under-represented ethnic categories, which could only be set after alignment with school census data, is never discussed, although it is virtually impossible to have one without the other.

Overall, the analysis presented in this article suggests that both Oxford and Cambridge are making significant progress to widen BAME access overall, but not enough

Table 2d. Oxford UG offers by nationality, 2013 and 2014

Country (nationality)	2013	% pop., p	p^2	ln(p)	p.ln(p)	2014	% pop., p	p^2	ln(p)	p.ln(p)
Armenia	0	0.0000	0.0000	0.0000	0.0000	2	0.0006	0.0000	−7.4891	−0.0042
Australia	20	0.0056	0.0000	−5.1818	−0.0291	12	0.0034	0.0000	−5.6974	−0.0191
Austria	5	0.0014	0.0000	−6.5681	−0.0092	3	0.0008	0.0000	−7.0837	−0.0059
Bangladesh	2	0.0006	0.0000	−7.4844	−0.0042	0	0.0000	0.0000	0.0000	0.0000
Belarus	1	0.0003	0.0000	−8.1775	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Belgium	9	0.0025	0.0000	−5.9803	−0.0151	14	0.0039	0.0000	−5.5432	−0.0217
Brazil	3	0.0008	0.0000	−7.0789	−0.0060	2	0.0006	0.0000	−7.4891	−0.0042
Brunei	2	0.0006	0.0000	−7.4844	−0.0042	2	0.0006	0.0000	−7.4891	−0.0042
Bulgaria	8	0.0022	0.0000	−6.0981	−0.0137	13	0.0036	0.0000	−5.6173	−0.0204
Canada	15	0.0042	0.0000	−5.4695	−0.0230	9	0.0025	0.0000	−5.9851	−0.0151
Cayman Is.	1	0.0003	0.0000	−8.1775	−0.0023	0	0.0000	0.0000	0.0000	0.0000
China	101	0.0284	0.0008	−3.5624	−0.1011	107	0.0299	0.0009	−3.5095	−0.1050
Colombia	1	0.0003	0.0000	−8.1775	−0.0023	2	0.0006	0.0000	−7.4891	−0.0042
Croatia	1	0.0003	0.0000	−8.1775	−0.0023	1	0.0003	0.0000	−8.1823	−0.0023
Cyprus	1	0.0003	0.0000	−8.1775	−0.0023	3	0.0008	0.0000	−7.0837	−0.0059
Czech Rep.	4	0.0011	0.0000	−6.7912	−0.0076	5	0.0014	0.0000	−6.5728	−0.0092
Denmark	6	0.0017	0.0000	−6.3858	−0.0108	10	0.0028	0.0000	−5.8797	−0.0164
Egypt	3	0.0008	0.0000	−7.0789	−0.0060	0	0.0000	0.0000	0.0000	0.0000
Estonia	2	0.0006	0.0000	−7.4844	−0.0042	1	0.0003	0.0000	−8.1823	−0.0023
Finland	4	0.0011	0.0000	−6.7912	−0.0076	2	0.0006	0.0000	−7.4891	−0.0042
France	16	0.0045	0.0000	−5.4049	−0.0243	25	0.0070	0.0000	−4.9634	−0.0347
Georgia	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1823	−0.0023
Germany	34	0.0096	0.0001	−4.6512	−0.0444	31	0.0087	0.0001	−4.7483	−0.0412
Greece	4	0.0011	0.0000	−6.7912	−0.0076	7	0.0020	0.0000	−6.2364	−0.0122
Hong Kong	49	0.0138	0.0002	−4.2857	−0.0590	50	0.0140	0.0002	−4.2703	−0.0597
Hungary	2	0.0006	0.0000	−7.4844	−0.0042	4	0.0011	0.0000	−6.7960	−0.0076
India	17	0.0048	0.0000	−5.3443	−0.0255	17	0.0048	0.0000	−5.3491	−0.0254
Indonesia	3	0.0008	0.0000	−7.0789	−0.0060	0	0.0000	0.0000	0.0000	0.0000
Ireland	11	0.0031	0.0000	−5.7796	−0.0179	12	0.0034	0.0000	−5.6974	−0.0191
Israel	1	0.0003	0.0000	−8.1775	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Italy	14	0.0039	0.0000	−5.5385	−0.0218	12	0.0034	0.0000	−5.6974	−0.0191
Jamaica	0	0.0000	0.0000	0.0000	0.0000	2	0.0006	0.0000	−7.4891	−0.0042
Japan	2	0.0006	0.0000	−7.4844	−0.0042	3	0.0008	0.0000	−7.0837	−0.0059
Kenya	1	0.0003	0.0000	−8.1775	−0.0023	3	0.0008	0.0000	−7.0837	−0.0059
Kuwait	1	0.0003	0.0000	−8.1775	−0.0023	1	0.0003	0.0000	−8.1823	−0.0023
Latvia	1	0.0003	0.0000	−8.1775	−0.0023	1	0.0003	0.0000	−8.1823	−0.0023
Lebanon	2	0.0006	0.0000	−7.4844	−0.0042	0	0.0000	0.0000	0.0000	0.0000
Lithuania	3	0.0008	0.0000	−7.0789	−0.0060	3	0.0008	0.0000	−7.0837	−0.0059
Luxemburg	3	0.0008	0.0000	−7.0789	−0.0060	4	0.0011	0.0000	−6.7960	−0.0076
Macao	1	0.0003	0.0000	−8.1775	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Macedonia	1	0.0003	0.0000	−8.1775	−0.0023	1	0.0003	0.0000	−8.1823	−0.0023
Malaysia	16	0.0045	0.0000	−5.4049	−0.0243	18	0.0050	0.0000	−5.2919	−0.0266
Mauritius	1	0.0003	0.0000	−8.1775	−0.0023	2	0.0006	0.0000	−7.4891	−0.0042
Nepal	1	0.0003	0.0000	−8.1775	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Netherlands	14	0.0039	0.0000	−5.5385	−0.0218	8	0.0022	0.0000	−6.1028	−0.0136
New Zealand	5	0.0014	0.0000	−6.5681	−0.0092	8	0.0022	0.0000	−6.1028	−0.0136
Nicaragua	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0.0000
Nigeria	1	0.0003	0.0000	−8.1775	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Norway	2	0.0006	0.0000	−7.4844	−0.0042	3	0.0008	0.0000	−7.0837	−0.0059
Oman	1	0.0003	0.0000	−8.1775	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Pakistan	3	0.0008	0.0000	−7.0789	−0.0060	5	0.0014	0.0000	−6.5728	−0.0092
Palestine	1	0.0003	0.0000	−8.1775	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Philippines	1	0.0003	0.0000	−8.1775	−0.0023	0	0.0000	0.0000	0.0000	0.0000

Table 2d. (Continued)

Country (nationality)	2013	% pop., p	p^2	ln(p)	p.ln(p)	2014	% pop., p	p^2	ln(p)	p.ln(p)
Poland	22	0.0062	0.0000	−5.0865	−0.0314	22	0.0062	0.0000	−5.0912	−0.0313
Portugal	2	0.0006	0.0000	−7.4844	−0.0042	2	0.0006	0.0000	−7.4891	−0.0042
Romania	17	0.0048	0.0000	−5.3443	−0.0255	14	0.0039	0.0000	−5.5432	−0.0217
Russia	3	0.0008	0.0000	−7.0789	−0.0060	10	0.0028	0.0000	−5.8797	−0.0164
Serbia & M.	0	0.0000	0.0000	0.0000	0.0000	3	0.0008	0.0000	−7.0837	−0.0059
Singapore	91	0.0256	0.0007	−3.6667	−0.0937	94	0.0263	0.0007	−3.6390	−0.0956
Slovakia	4	0.0011	0.0000	−6.7912	−0.0076	2	0.0006	0.0000	−7.4891	−0.0042
Slovenia	4	0.0011	0.0000	−6.7912	−0.0076	6	0.0017	0.0000	−6.3905	−0.0107
South Africa	4	0.0011	0.0000	−6.7912	−0.0076	1	0.0003	0.0000	−8.1823	−0.0023
South Korea	16	0.0045	0.0000	−5.4049	−0.0243	17	0.0048	0.0000	−5.3491	−0.0254
Spain	13	0.0037	0.0000	−5.6126	−0.0205	12	0.0034	0.0000	−5.6974	−0.0191
Sri Lanka	1	0.0003	0.0000	−8.1775	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Sudan	1	0.0003	0.0000	−8.1775	−0.0023	0	0.0000	0.0000	0.0000	0.0000
Swaziland	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.1823	−0.0023
Sweden	3	0.0008	0.0000	−7.0789	−0.0060	9	0.0025	0.0000	−5.9851	−0.0151
Switzerland	11	0.0031	0.0000	−5.7796	−0.0179	4	0.0011	0.0000	−6.7960	−0.0076
Taiwan	2	0.0006	0.0000	−7.4844	−0.0042	2	0.0006	0.0000	−7.4891	−0.0042
Thailand	11	0.0031	0.0000	−5.7796	−0.0179	5	0.0014	0.0000	−6.5728	−0.0092
Trinidad & T.	1	0.0003	0.0000	−8.1775	−0.0023	1	0.0003	0.0000	−8.1823	−0.0023
Turkey	10	0.0028	0.0000	−5.8749	−0.0165	7	0.0020	0.0000	−6.2364	−0.0122
UAE	3	0.0008	0.0000	−7.0789	−0.0060	2	0.0006	0.0000	−7.4891	−0.0042
Ukraine	2	0.0006	0.0000	−7.4844	−0.0042	2	0.0006	0.0000	−7.4891	−0.0042
USA & Terr.	55	0.0154	0.0002	−4.1702	−0.0644	65	0.0182	0.0003	−4.0079	−0.0728
Venezuela	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0.0000
Vietnam	2	0.0006	0.0000	−7.4844	−0.0042	2	0.0006	0.0000	−7.4891	−0.0042
UK	2881	0.8093	0.6549	−0.2116	−0.1713	2885	0.8065	0.6505	−0.2150	−0.1734
Total	3560	1.0000	0.6572		1.1252	3577	1.0000	0.6530		1.1238

Note: Zero rows have been removed
Source: Oxford Public Tableau, 2018a.

progress is being made in relation to black UK/Home applicants, as Samira Khan, Oxford's director of undergraduate admissions, conceded on BBC Radio 4 (Horton, 2018).

> More needs to be done to prepare high-achieving black students for applications to Cambridge and Oxford, which is why we have significantly increased funding to programmes like Target Oxbridge[9] . (Diver, 2018)

Both universities clearly 'want to be more diverse' (Diver, 2018) and are making offers to an increasingly diverse pool of applicants—for example, nearly 50% of all black students who got the necessary grades applied to Oxford, compared to 28% of all white students with the same grades—but the *actual* raw number of students from the three UK Black categories remains stubbornly low, as David Lammy and other critics have pointed out. One likely fault line is low school attainment and teacher antipathy, rather than systemic racial bias within the universities, so the suggestion that Oxford and Cambridge should 'write to high-achieving BAME students to persuade them to apply, as the Ivy League colleges do in the US' (Bulman, 2017), is a good one and warranted by the analysis, even though, as university supporters suggest, 'it is not the purpose of universities to correct the failings of state schools'

Table 2e. Oxford UG offers by nationality, 2015 and 2016

Country (nationality)	2015	% pop., p	p^2	ln(p)	p.ln(p)	2016	% pop., p	p^2	ln(p)	p.ln(p)
Albania	1	0.0003	0.0000	−8.2044	−0.0022	0	0.0000	0.0000	0.0000	0.0000
Armenia	0	0.0000	0.0000	0.0000	0.0000	2	0.0005	0.0000	−7.5088	−0.0041
Australia	26	0.0071	0.0001	−4.9463	−0.0352	26	0.0071	0.0001	−4.9438	−0.0352
Austria	8	0.0022	0.0000	−6.1250	−0.0134	5	0.0014	0.0000	−6.5925	−0.0090
Azerbaijan	1	0.0003	0.0000	−8.2044	−0.0022	1	0.0003	0.0000	−8.2019	−0.0022
Bangladesh	2	0.0005	0.0000	−7.5113	−0.0041	1	0.0003	0.0000	−8.2019	−0.0022
Belgium	6	0.0016	0.0000	−6.4126	−0.0105	7	0.0019	0.0000	−6.2560	−0.0120
Belize	1	0.0003	0.0000	−8.2044	−0.0022	0	0.0000	0.0000	0.0000	0.0000
Bermuda	3	0.0008	0.0000	−7.1058	−0.0058	0	0.0000	0.0000	0.0000	0.0000
Bosnia-Her.	1	0.0003	0.0000	−8.2044	−0.0022	2	0.0005	0.0000	−7.5088	−0.0041
Botswana	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.2019	−0.0022
Brazil	2	0.0005	0.0000	−7.5113	−0.0041	0	0.0000	0.0000	0.0000	0.0000
Bulgaria	8	0.0022	0.0000	−6.1250	−0.0134	14	0.0038	0.0000	−5.5629	−0.0213
Canada	17	0.0046	0.0000	−5.3712	−0.0250	10	0.0027	0.0000	−5.8993	−0.0162
Cayman Is.	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.2019	−0.0022
China	95	0.0260	0.0007	−3.6505	−0.0948	96	0.0263	0.0007	−3.6376	−0.0957
Croatia	1	0.0003	0.0000	−8.2044	−0.0022	0	0.0000	0.0000	0.0000	0.0000
Cyprus	1	0.0003	0.0000	−8.2044	−0.0022	1	0.0003	0.0000	−8.2019	−0.0022
Czech Rep.	8	0.0022	0.0000	−6.1250	−0.0134	5	0.0014	0.0000	−6.5925	−0.0090
Denmark	5	0.0014	0.0000	−6.5950	−0.0090	2	0.0005	0.0000	−7.5088	−0.0041
Egypt	2	0.0005	0.0000	−7.5113	−0.0041	3	0.0008	0.0000	−7.1033	−0.0058
Estonia	1	0.0003	0.0000	−8.2044	−0.0022	2	0.0005	0.0000	−7.5088	−0.0041
Finland	5	0.0014	0.0000	−6.5950	−0.0090	2	0.0005	0.0000	−7.5088	−0.0041
France	20	0.0055	0.0000	−5.2087	−0.0285	25	0.0069	0.0000	−4.9831	−0.0341
Georgia	1	0.0003	0.0000	−8.2044	−0.0022	0	0.0000	0.0000	0.0000	0.0000
Germany	27	0.0074	0.0001	−4.9086	−0.0362	49	0.0134	0.0002	−4.3101	−0.0579
Gibraltar	1	0.0003	0.0000	−8.2044	−0.0022	0	0.0000	0.0000	0.0000	0.0000
Greece	7	0.0019	0.0000	−6.2585	−0.0120	3	0.0008	0.0000	−7.1033	−0.0058
Hong Kong	55	0.0150	0.0002	−4.1971	−0.0631	40	0.0110	0.0001	−4.5131	−0.0495
Hungary	10	0.0027	0.0000	−5.9018	−0.0161	4	0.0011	0.0000	−6.8156	−0.0075
India	11	0.0030	0.0000	−5.8065	−0.0175	14	0.0038	0.0000	−5.5629	−0.0213
Indonesia	4	0.0011	0.0000	−6.8181	−0.0075	3	0.0008	0.0000	−7.1033	−0.0058
Iran	2	0.0005	0.0000	−7.5113	−0.0041	0	0.0000	0.0000	0.0000	0.0000
Ireland	9	0.0025	0.0000	−6.0072	−0.0148	7	0.0019	0.0000	−6.2560	−0.0120
Israel	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.2019	−0.0022
Italy	24	0.0066	0.0000	−5.0263	−0.0330	16	0.0044	0.0000	−5.4293	−0.0238
Jamaica	1	0.0003	0.0000	−8.2044	−0.0022	0	0.0000	0.0000	0.0000	0.0000
Japan	4	0.0011	0.0000	−6.8181	−0.0075	2	0.0005	0.0000	−7.5088	−0.0041
Kenya	1	0.0003	0.0000	−8.2044	−0.0022	0	0.0000	0.0000	0.0000	0.0000
Kyrgyzstan	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.2019	−0.0022
Latvia	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.2019	−0.0022
Lithuania	1	0.0003	0.0000	−8.2044	−0.0022	7	0.0019	0.0000	−6.2560	−0.0120
Luxemburg	2	0.0005	0.0000	−7.5113	−0.0041	4	0.0011	0.0000	−6.8156	−0.0075
Macao	1	0.0003	0.0000	−8.2044	−0.0022	0	0.0000	0.0000	0.0000	0.0000
Macedonia	2	0.0005	0.0000	−7.5113	−0.0041	1	0.0003	0.0000	−8.2019	−0.0022
Malaysia	14	0.0038	0.0000	−5.5653	−0.0213	22	0.0060	0.0000	−5.1109	−0.0308
Maldives	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.2019	−0.0022
Mauritius	2	0.0005	0.0000	−7.5113	−0.0041	2	0.0005	0.0000	−7.5088	−0.0041
Moldova	1	0.0003	0.0000	−8.2044	−0.0022	0	0.0000	0.0000	0.0000	0.0000
Monaco	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.2019	−0.0022
Netherlands	10	0.0027	0.0000	−5.9018	−0.0161	8	0.0022	0.0000	−6.1225	−0.0134
New Zealand	8	0.0022	0.0000	−6.1250	−0.0134	10	0.0027	0.0000	−5.8993	−0.0162
Nigeria	3	0.0008	0.0000	−7.1058	−0.0058	6	0.0016	0.0000	−6.4102	−0.0105

Table 2e. (Continued)

Country (nationality)	2015	% pop., p	p^2	ln(p)	p.ln(p)	2016	% pop., p	p^2	ln(p)	p.ln(p)
Norway	4	0.0011	0.0000	−6.8181	−0.0075	3	0.0008	0.0000	−7.1033	−0.0058
Oman	1	0.0003	0.0000	−8.2044	−0.0022	1	0.0003	0.0000	−8.2019	−0.0022
Pakistan	4	0.0011	0.0000	−6.8181	−0.0075	7	0.0019	0.0000	−6.2560	−0.0120
Panama	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.2019	−0.0022
Peru	2	0.0005	0.0000	−7.5113	−0.0041	1	0.0003	0.0000	−8.2019	−0.0022
Philippines	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.2019	−0.0022
Poland	28	0.0077	0.0001	−4.8722	−0.0373	34	0.0093	0.0001	−4.6756	−0.0436
Portugal	2	0.0005	0.0000	−7.5113	−0.0041	3	0.0008	0.0000	−7.1033	−0.0058
Qatar	0	0.0000	0.0000	0.0000	0.0000	2	0.0005	0.0000	−7.5088	−0.0041
Romania	29	0.0079	0.0001	−4.8371	−0.0384	36	0.0099	0.0001	−4.6184	−0.0456
Russia	10	0.0027	0.0000	−5.9018	−0.0161	9	0.0025	0.0000	−6.0047	−0.0148
Saudi Arabia	2	0.0005	0.0000	−7.5113	−0.0041	1	0.0003	0.0000	−8.2019	−0.0022
Serbia & M.	3	0.0008	0.0000	−7.1058	−0.0058	4	0.0011	0.0000	−6.8156	−0.0075
Singapore	99	0.0271	0.0007	−3.6093	−0.0977	83	0.0228	0.0005	−3.7831	−0.0861
Slovakia	0	0.0000	0.0000	0.0000	0.0000	7	0.0019	0.0000	−6.2560	−0.0120
Slovenia	2	0.0005	0.0000	−7.5113	−0.0041	2	0.0005	0.0000	−7.5088	−0.0041
South Africa	3	0.0008	0.0000	−7.1058	−0.0058	1	0.0003	0.0000	−8.2019	−0.0022
South Korea	32	0.0088	0.0001	−4.7387	−0.0415	20	0.0055	0.0000	−5.2062	−0.0285
Spain	12	0.0033	0.0000	−5.7195	−0.0188	14	0.0038	0.0000	−5.5629	−0.0213
Sri Lanka	3	0.0008	0.0000	−7.1058	−0.0058	2	0.0005	0.0000	−7.5088	−0.0041
Sudan	1	0.0003	0.0000	−8.2044	−0.0022	0	0.0000	0.0000	0.0000	0.0000
Sweden	10	0.0027	0.0000	−5.9018	−0.0161	5	0.0014	0.0000	−6.5925	−0.0090
Switzerland	14	0.0038	0.0000	−5.5653	−0.0213	15	0.0041	0.0000	−5.4939	−0.0226
Taiwan	3	0.0008	0.0000	−7.1058	−0.0058	2	0.0005	0.0000	−7.5088	−0.0041
Thailand	6	0.0016	0.0000	−6.4126	−0.0105	8	0.0022	0.0000	−6.1225	−0.0134
Turkey	9	0.0025	0.0000	−6.0072	−0.0148	8	0.0022	0.0000	−6.1225	−0.0134
UAE	5	0.0014	0.0000	−6.5950	−0.0090	7	0.0019	0.0000	−6.2560	−0.0120
Ukraine	3	0.0008	0.0000	−7.1058	−0.0058	4	0.0011	0.0000	−6.8156	−0.0075
Uruguay	0	0.0000	0.0000	0.0000	0.0000	1	0.0003	0.0000	−8.2019	−0.0022
USA & Terr.	67	0.0183	0.0003	−3.9997	−0.0733	70	0.0192	0.0004	−3.9534	−0.0759
Vietnam	3	0.0008	0.0000	−7.1058	−0.0058	1	0.0003	0.0000	−8.2019	−0.0022
UK	2885	0.7889	0.6224	−0.2371	−0.1871	2886	0.7911	0.6259	−0.2343	−0.1854
Total	3657	1.0000	0.6249		1.2352	3648	1.0000	0.6283		1.2230

Note: Zero rows have been removed
Source: Oxford Public Tableau, 2018a.

(Editorial, 2018). Part of the blame may also lie with an 'anti-aspiration' culture prevalent in some state schools, 'reinforced by populists' who perpetuate a *Brideshead* view of Oxbridge as a place of privilege and aquatint.

> The real problem facing Oxford isn't the lack of diversity in its offers but the lack of diversity in its applicants. Not enough students from poorer or non-white backgrounds apply . . . which 'is not wholly the fault of [Oxford]. Some teachers actually put their pupils off applying'. (Editorial, 2018)

Sam Gyimah MP, the Conservative government minister in charge of universities, agrees and suggests that for this reason, elite universities should '*start engaging early*', even '*at primary school level*' (cited in Horton, 2018):

> *There are some schools that are schooling their pupils from the age of 12 or 13 so that when it gets to A-levels it's part of their DNA. What Oxford should be doing is helping those schools that do not have those in-built systems to actually develop those advantages*. (cited in Yorke, 2018a)

Table 3a. Cambridge UG offers by nationality, 2007 and 2008

Country (nationality)	2007	% pop., p	p^2	ln(p)	p. ln(p)	2008	% pop., p	p^2	ln(p)	p. ln(p)
Afghanistan	2	0.0002	0.0000	−8.6833	−0.0015	2	0.0002	0.0000	−8.6833	−0.0015
Albania	1	0.0001	0.0000	−9.3764	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Argentina	5	0.0004	0.0000	−7.7670	−0.0033	3	0.0003	0.0000	−8.2778	−0.0021
Australia	43	0.0036	0.0000	−5.6152	−0.0205	41	0.0035	0.0000	−5.6629	−0.0197
Austria	14	0.0012	0.0000	−6.7374	−0.0080	18	0.0015	0.0000	−6.4861	−0.0099
Bahrain	4	0.0003	0.0000	−7.9902	−0.0027	2	0.0002	0.0000	−8.6833	−0.0015
Bangladesh	2	0.0002	0.0000	−8.6833	−0.0015	2	0.0002	0.0000	−8.6833	−0.0015
Barbados	1	0.0001	0.0000	−9.3764	−0.0008	2	0.0002	0.0000	−8.6833	−0.0015
Belarus	3	0.0003	0.0000	−8.2778	−0.0021	3	0.0003	0.0000	−8.2778	−0.0021
Belgium	11	0.0009	0.0000	−6.9786	−0.0065	18	0.0015	0.0000	−6.4861	−0.0099
Belize	2	0.0002	0.0000	−8.6833	−0.0015	1	0.0001	0.0000	−9.3764	−0.0008
Bosnia-Her.	1	0.0001	0.0000	−9.3764	−0.0008	1	0.0001	0.0000	−9.3764	−0.0008
Brazil	2	0.0002	0.0000	−8.6833	−0.0015	2	0.0002	0.0000	−8.6833	−0.0015
Brunei	5	0.0004	0.0000	−7.7670	−0.0033	5	0.0004	0.0000	−7.7670	−0.0033
Bulgaria	6	0.0005	0.0000	−7.5847	−0.0039	10	0.0008	0.0000	−7.0739	−0.0060
Cameroon	2	0.0002	0.0000	−8.6833	−0.0015	0	0.0000	0.0000	0.0000	0.0000
Canada	56	0.0047	0.0000	−5.3511	−0.0254	49	0.0042	0.0000	−5.4846	−0.0228
China	322	0.0273	0.0007	−3.6019	−0.0982	353	0.0299	0.0009	−3.5100	−0.1049
Colombia	2	0.0002	0.0000	−8.6833	−0.0015	1	0.0001	0.0000	−9.3764	−0.0008
Congo	1	0.0001	0.0000	−9.3764	−0.0008	1	0.0001	0.0000	−9.3764	−0.0008
Croatia	1	0.0001	0.0000	−9.3764	−0.0008	2	0.0002	0.0000	−8.6833	−0.0015
Cyprus	54	0.0046	0.0000	−5.3875	−0.0246	57	0.0048	0.0000	−5.3334	−0.0257
Czech Rep.	14	0.0012	0.0000	−6.7374	−0.0080	11	0.0009	0.0000	−6.9786	−0.0065
Denmark	16	0.0014	0.0000	−6.6039	−0.0089	18	0.0015	0.0000	−6.4861	−0.0099
Egypt	1	0.0001	0.0000	−9.3764	−0.0008	3	0.0003	0.0000	−8.2778	−0.0021
Estonia	7	0.0006	0.0000	−7.4305	−0.0044	8	0.0007	0.0000	−7.2970	−0.0049
Ethiopia	3	0.0003	0.0000	−8.2778	−0.0021	3	0.0003	0.0000	−8.2778	−0.0021
Finland	21	0.0018	0.0000	−6.3319	−0.0113	20	0.0017	0.0000	−6.3807	−0.0108
France	87	0.0074	0.0001	−4.9105	−0.0362	95	0.0080	0.0001	−4.8226	−0.0388
Gambia	1	0.0001	0.0000	−9.3764	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Georgia	1	0.0001	0.0000	−9.3764	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Germany	188	0.0159	0.0003	−4.1400	−0.0659	203	0.0172	0.0003	−4.0632	−0.0699
Ghana	5	0.0004	0.0000	−7.7670	−0.0033	6	0.0005	0.0000	−7.5847	−0.0039
Gibraltar	1	0.0001	0.0000	−9.3764	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Greece	27	0.0023	0.0000	−6.0806	−0.0139	22	0.0019	0.0000	−6.2854	−0.0117
Hong Kong	32	0.0027	0.0000	−5.9107	−0.0160	22	0.0019	0.0000	−6.2854	−0.0117
Hungary	16	0.0014	0.0000	−6.6039	−0.0089	18	0.0015	0.0000	−6.4861	−0.0099
India	72	0.0061	0.0000	−5.0998	−0.0311	70	0.0059	0.0000	−5.1280	−0.0304
Indonesia	2	0.0002	0.0000	−8.6833	−0.0015	4	0.0003	0.0000	−7.9902	−0.0027
Iran	7	0.0006	0.0000	−7.4305	−0.0044	12	0.0010	0.0000	−6.8915	−0.0070
Iraq	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3764	−0.0008
Ireland	83	0.0070	0.0000	−4.9576	−0.0349	87	0.0074	0.0001	−4.9105	−0.0362
Israel	5	0.0004	0.0000	−7.7670	−0.0033	3	0.0003	0.0000	−8.2778	−0.0021
Italy	21	0.0018	0.0000	−6.3319	−0.0113	30	0.0025	0.0000	−5.9753	−0.0152
Jamaica	1	0.0001	0.0000	−9.3764	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Japan	21	0.0018	0.0000	−6.3319	−0.0113	20	0.0017	0.0000	−6.3807	−0.0108
Jordan	1	0.0001	0.0000	−9.3764	−0.0008	1	0.0001	0.0000	−9.3764	−0.0008
Kazakhstan	1	0.0001	0.0000	−9.3764	−0.0008	6	0.0005	0.0000	−7.5847	−0.0039
Kenya	7	0.0006	0.0000	−7.4305	−0.0044	8	0.0007	0.0000	−7.2970	−0.0049
Kyrgyzstan	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3764	−0.0008
Latvia	8	0.0007	0.0000	−7.2970	−0.0049	10	0.0008	0.0000	−7.0739	−0.0060
Liberia	1	0.0001	0.0000	−9.3764	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Lithuania	11	0.0009	0.0000	−6.9786	−0.0065	16	0.0014	0.0000	−6.6039	−0.0089

Table 3a. (Continued)

Country (nationality)	2007	% pop., p	p^2	$\ln(p)$	$p.\ln(p)$	2008	% pop., p	p^2	$\ln(p)$	$p.\ln(p)$
Luxemburg	1	0.0001	0.0000	−9.3764	−0.0008	2	0.0002	0.0000	−8.6833	−0.0015
Macedonia	2	0.0002	0.0000	−8.6833	−0.0015	0	0.0000	0.0000	0.0000	0.0000
Madagascar	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3764	−0.0008
Malaysia	146	0.0124	0.0002	−4.3928	−0.0543	147	0.0125	0.0002	−4.3860	−0.0546
Mali	1	0.0001	0.0000	−9.3764	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Malta	1	0.0001	0.0000	−9.3764	−0.0008	2	0.0002	0.0000	−8.6833	−0.0015
Mauritius	6	0.0005	0.0000	−7.5847	−0.0039	7	0.0006	0.0000	−7.4305	−0.0044
Mexico	3	0.0003	0.0000	−8.2778	−0.0021	2	0.0002	0.0000	−8.6833	−0.0015
Moldova	1	0.0001	0.0000	−9.3764	−0.0008	1	0.0001	0.0000	−9.3764	−0.0008
Morocco	1	0.0001	0.0000	−9.3764	−0.0008	2	0.0002	0.0000	−8.6833	−0.0015
Myanmar	2	0.0002	0.0000	−8.6833	−0.0015	4	0.0003	0.0000	−7.9902	−0.0027
Nepal	1	0.0001	0.0000	−9.3764	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Netherlands	20	0.0017	0.0000	−6.3807	−0.0108	27	0.0023	0.0000	−6.0806	−0.0139
New Zealand	25	0.0021	0.0000	−6.1576	−0.0130	26	0.0022	0.0000	−6.1184	−0.0135
Nigeria	7	0.0006	0.0000	−7.4305	−0.0044	9	0.0008	0.0000	−7.1792	−0.0055
Norway	9	0.0008	0.0000	−7.1792	−0.0055	6	0.0005	0.0000	−7.5847	−0.0039
Oman	1	0.0001	0.0000	−9.3764	−0.0008	1	0.0001	0.0000	−9.3764	−0.0008
Pakistan	7	0.0006	0.0000	−7.4305	−0.0044	7	0.0006	0.0000	−7.4305	−0.0044
Peru	1	0.0001	0.0000	−9.3764	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Philippines	1	0.0001	0.0000	−9.3764	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Poland	28	0.0024	0.0000	−6.0442	−0.0143	36	0.0030	0.0000	−5.7929	−0.0177
Portugal	15	0.0013	0.0000	−6.6684	−0.0085	19	0.0016	0.0000	−6.4320	−0.0104
Romania	6	0.0005	0.0000	−7.5847	−0.0039	10	0.0008	0.0000	−7.0739	−0.0060
Russia	48	0.0041	0.0000	−5.5052	−0.0224	35	0.0030	0.0000	−5.8211	−0.0173
S. Vincent & G.	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0.0000
Saudi Arabia	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0.0000
Serbia & M.	3	0.0003	0.0000	−8.2778	−0.0021	3	0.0003	0.0000	−8.2778	−0.0021
Singapore	90	0.0076	0.0001	−4.8766	−0.0372	112	0.0095	0.0001	−4.6579	−0.0442
Slovakia	6	0.0005	0.0000	−7.5847	−0.0039	7	0.0006	0.0000	−7.4305	−0.0044
Slovenia	3	0.0003	0.0000	−8.2778	−0.0021	3	0.0003	0.0000	−8.2778	−0.0021
Somalia	3	0.0003	0.0000	−8.2778	−0.0021	4	0.0003	0.0000	−7.9902	−0.0027
South Africa	14	0.0012	0.0000	−6.7374	−0.0080	11	0.0009	0.0000	−6.9786	−0.0065
South Korea	31	0.0026	0.0000	−5.9425	−0.0156	27	0.0023	0.0000	−6.0806	−0.0139
Spain	20	0.0017	0.0000	−6.3807	−0.0108	23	0.0019	0.0000	−6.2410	−0.0122
Sri Lanka	21	0.0018	0.0000	−6.3319	−0.0113	23	0.0019	0.0000	−6.2410	−0.0122
Sudan	1	0.0001	0.0000	−9.3764	−0.0008	1	0.0001	0.0000	−9.3764	−0.0008
Sweden	17	0.0014	0.0000	−6.5432	−0.0094	33	0.0028	0.0000	−5.8799	−0.0164
Switzerland	5	0.0004	0.0000	−7.7670	−0.0033	5	0.0004	0.0000	−7.7670	−0.0033
Syria	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3764	−0.0008
Taiwan	6	0.0005	0.0000	−7.5847	−0.0039	6	0.0005	0.0000	−7.5847	−0.0039
Thailand	22	0.0019	0.0000	−6.2854	−0.0117	26	0.0022	0.0000	−6.1184	−0.0135
Trinidad & T.	11	0.0009	0.0000	−6.9786	−0.0065	13	0.0011	0.0000	−6.8115	−0.0075
Turkey	3	0.0003	0.0000	−8.2778	−0.0021	4	0.0003	0.0000	−7.9902	−0.0027
UAE	1	0.0001	0.0000	−9.3764	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Uganda	2	0.0002	0.0000	−8.6833	−0.0015	3	0.0003	0.0000	−8.2778	−0.0021
Ukraine	16	0.0014	0.0000	−6.6039	−0.0089	16	0.0014	0.0000	−6.6039	−0.0089
Uruguay	1	0.0001	0.0000	−9.3764	−0.0008	1	0.0001	0.0000	−9.3764	−0.0008
USA & Terr.	136	0.0115	0.0001	−4.4638	−0.0514	140	0.0119	0.0001	−4.4348	−0.0526
Vietnam	21	0.0018	0.0000	−6.3319	−0.0113	26	0.0022	0.0000	−6.1184	−0.0135
Zambia	1	0.0001	0.0000	−9.3764	−0.0008	1	0.0001	0.0000	−9.3764	−0.0008
Zimbabwe	4	0.0003	0.0000	−7.9902	−0.0027	4	0.0003	0.0000	−7.9902	−0.0027

Table 3a. (Continued)

Country (nationality)	2007	% pop., p	p^2	ln(p)	p. ln(p)	2008	% pop., p	p^2	ln(p)	p. ln(p)
UK	9835	0.8330	0.6939	−0.1827	−0.1522	9699	0.8215	0.6748	−0.1967	−0.1616
Total	11807	1.0000	0.6955		1.0287	11807	1.0000	0.6767		1.0855

Note: Zero rows have been removed
Source: Cambridge Planning and Resource Allocation Office, 2018.

As for the views of BAME students themselves, it is important to record recent encouraging progress (Yorke, 2018a), not least because those already at Oxbridge have expressed concern that 'negative press' campaigns 'only serve to further alienate a proportion of the population who already doubt their ability to be accepted' (Gomes, 2017).

> As a member of the university from inner-city northern England, I think Mr Lammy's constant bitter criticism of Oxford is bang out of order. (Horton, 2018)

Clearly, for those most closely affected, the interpretation of the data is sensitive, especially given that the overall BAME picture is unclear relative to national background data. The last UK census showed that 18.3% of 17–24-year-olds are BAME. The corresponding figure at Oxford in 2017 was approximately the same at 17.9% (Office for National Statistics, 2011; Editorial, 2018), and the proportion of places Oxford gave to black applicants matched approximately the proportion of black students who achieved AAA or better at A-level *at other universities* (Editorial, 2018). So, it could be said that Oxford and Cambridge are being unfairly targeted (or that other universities are getting off the hook) and that critics are over-reaching in their claims of racial discrimination (Bulman, 2017). The issue is not so much the admission of BAME applicants per se, but the significant under-representation of *categories within* BAME, and there are dangers in continuing to misdirect the debate along these lines. Politicians who threaten that 'if Oxbridge can't improve, then there is no reason why the taxpayer should continue to fund them' (Richardson, 2017) only serve to hasten the day when these world-leading universities opt out of the public sector, like Ivy League universities in the USA, which the same critics hold up as exemplars of good practice. Yvette Cooper, Labour MP, regularly slams Oxford for making '*lame excuses*' for its '*dismal performance*' on diversity and universities minister Gyimah takes the same line (Horton, 2018). It is not clear what the endgame is for these critics on both sides of the political divide, although driving the two universities into the private sector in pale imitation of their Ivy League counterparts would certainly follow the trend of recent decades under both Labour and Conservative administrations. On the Left, David Lammy seems to be pushing for admission quotas and a legally binding system of positive discrimination (Editorial, 2018). On the Right, Sam Gyimah, himself an Oxford graduate and the first black president of the Oxford Union, seems to be pushing for Oxbridge to '*look beyond exam results*' and to '*take in a broad range of factors to crack the issue of admissions*' (cited in Yorke, 2018a), although it is clear from experience in schools that 'looking beyond examination results' is not to the advantage of low socio-economic status applicants. Any system of coursework, interviews

Table 3b. Cambridge UG offers by nationality, 2009 and 2010

Country (nationality)	2009	% pop., p	p^2	ln(p)	p.ln(p)	2010	% pop., p	p^2	ln(p)	p.ln(p)
Afghanistan	1	0.0001	0.0000	−9.3917	−0.0008	1	0.0001	0.0000	−9.4055	−0.0008
Albania	1	0.0001	0.0000	−9.3917	−0.0008	1	0.0001	0.0000	−9.4055	−0.0008
Argentina	2	0.0002	0.0000	−8.6986	−0.0015	0	0.0000	0.0000	0.0000	0.0000
Australia	44	0.0037	0.0000	−5.6076	−0.0206	44	0.0036	0.0000	−5.6213	−0.0203
Austria	17	0.0014	0.0000	−6.5585	−0.0093	23	0.0019	0.0000	−6.2700	−0.0119
Bahamas	1	0.0001	0.0000	−9.3917	−0.0008	1	0.0001	0.0000	−9.4055	−0.0008
Bahrain	1	0.0001	0.0000	−9.3917	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Bangladesh	2	0.0002	0.0000	−8.6986	−0.0015	2	0.0002	0.0000	−8.7123	−0.0014
Barbados	3	0.0003	0.0000	−8.2931	−0.0021	3	0.0002	0.0000	−8.3069	−0.0021
Belarus	2	0.0002	0.0000	−8.6986	−0.0015	1	0.0001	0.0000	−9.4055	−0.0008
Belgium	19	0.0016	0.0000	−6.4473	−0.0102	19	0.0016	0.0000	−6.4611	−0.0101
Belize	1	0.0001	0.0000	−9.3917	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Brazil	3	0.0003	0.0000	−8.2931	−0.0021	2	0.0002	0.0000	−8.7123	−0.0014
Brunei	3	0.0003	0.0000	−8.2931	−0.0021	6	0.0005	0.0000	−7.6137	−0.0038
Bulgaria	15	0.0013	0.0000	−6.6837	−0.0084	20	0.0016	0.0000	−6.4098	−0.0105
Burundi	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.4055	−0.0008
Cambodia	1	0.0001	0.0000	−9.3917	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Canada	52	0.0043	0.0000	−5.4405	−0.0236	51	0.0042	0.0000	−5.4737	−0.0230
China	350	0.0292	0.0009	−3.5338	−0.1032	356	0.0293	0.0009	−3.5306	−0.1034
Colombia	1	0.0001	0.0000	−9.3917	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Congo	1	0.0001	0.0000	−9.3917	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Croatia	3	0.0003	0.0000	−8.2931	−0.0021	3	0.0002	0.0000	−8.3069	−0.0021
Cyprus	67	0.0056	0.0000	−5.1871	−0.0290	64	0.0053	0.0000	−5.2466	−0.0276
Czech Rep.	10	0.0008	0.0000	−7.0892	−0.0059	11	0.0009	0.0000	−7.0076	−0.0063
Denmark	21	0.0018	0.0000	−6.3472	−0.0111	18	0.0015	0.0000	−6.5151	−0.0096
Egypt	3	0.0003	0.0000	−8.2931	−0.0021	4	0.0003	0.0000	−8.0192	−0.0026
Estonia	7	0.0006	0.0000	−7.4458	−0.0043	6	0.0005	0.0000	−7.6137	−0.0038
Ethiopia	2	0.0002	0.0000	−8.6986	−0.0015	2	0.0002	0.0000	−8.7123	−0.0014
Finland	22	0.0018	0.0000	−6.3007	−0.0116	21	0.0017	0.0000	−6.3610	−0.0110
France	97	0.0081	0.0001	−4.8170	−0.0390	103	0.0085	0.0001	−4.7708	−0.0404
Germany	224	0.0187	0.0003	−3.9801	−0.0744	229	0.0188	0.0004	−3.9718	−0.0748
Ghana	3	0.0003	0.0000	−8.2931	−0.0021	3	0.0002	0.0000	−8.3069	−0.0021
Greece	28	0.0023	0.0000	−6.0595	−0.0142	29	0.0024	0.0000	−6.0382	−0.0144
Hong Kong	15	0.0013	0.0000	−6.6837	−0.0084	11	0.0009	0.0000	−7.0076	−0.0063
Hungary	19	0.0016	0.0000	−6.4473	−0.0102	23	0.0019	0.0000	−6.2700	−0.0119
India	75	0.0063	0.0000	−5.0743	−0.0317	67	0.0055	0.0000	−5.2008	−0.0287
Indonesia	2	0.0002	0.0000	−8.6986	−0.0015	4	0.0003	0.0000	−8.0192	−0.0026
Iran	9	0.0008	0.0000	−7.1945	−0.0054	6	0.0005	0.0000	−7.6137	−0.0038
Iraq	2	0.0002	0.0000	−8.6986	−0.0015	1	0.0001	0.0000	−9.4055	−0.0008
Ireland	94	0.0078	0.0001	−4.8485	−0.0380	95	0.0078	0.0001	−4.8516	−0.0379
Israel	2	0.0002	0.0000	−8.6986	−0.0015	5	0.0004	0.0000	−7.7961	−0.0032
Italy	43	0.0036	0.0000	−5.6305	−0.0202	57	0.0047	0.0000	−5.3624	−0.0251
Jamaica	2	0.0002	0.0000	−8.6986	−0.0015	2	0.0002	0.0000	−8.7123	−0.0014
Japan	30	0.0025	0.0000	−5.9905	−0.0150	30	0.0025	0.0000	−6.0043	−0.0148
Jordan	1	0.0001	0.0000	−9.3917	−0.0008	1	0.0001	0.0000	−9.4055	−0.0008
Kazakhstan	7	0.0006	0.0000	−7.4458	−0.0043	9	0.0007	0.0000	−7.2083	−0.0053
Kenya	8	0.0007	0.0000	−7.3123	−0.0049	6	0.0005	0.0000	−7.6137	−0.0038
Kyrgyzstan	1	0.0001	0.0000	−9.3917	−0.0008	1	0.0001	0.0000	−9.4055	−0.0008
Latvia	10	0.0008	0.0000	−7.0892	−0.0059	9	0.0007	0.0000	−7.2083	−0.0053
Lithuania	21	0.0018	0.0000	−6.3472	−0.0111	35	0.0029	0.0000	−5.8501	−0.0168
Luxemburg	2	0.0002	0.0000	−8.6986	−0.0015	4	0.0003	0.0000	−8.0192	−0.0026
Malawi	1	0.0001	0.0000	−9.3917	−0.0008	1	0.0001	0.0000	−9.4055	−0.0008

Table 3b. (Continued)

Country (nationality)	2009	% pop., p	p^2	ln(p)	p.ln(p)	2010	% pop., p	p^2	ln(p)	p.ln(p)
Malaysia	138	0.0115	0.0001	−4.4645	−0.0514	120	0.0099	0.0001	−4.6180	−0.0456
Malta	2	0.0002	0.0000	−8.6986	−0.0015	2	0.0002	0.0000	−8.7123	−0.0014
Mauritius	8	0.0007	0.0000	−7.3123	−0.0049	9	0.0007	0.0000	−7.2083	−0.0053
Mexico	3	0.0003	0.0000	−8.2931	−0.0021	5	0.0004	0.0000	−7.7961	−0.0032
Moldova	3	0.0003	0.0000	−8.2931	−0.0021	2	0.0002	0.0000	−8.7123	−0.0014
Morocco	1	0.0001	0.0000	−9.3917	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Myanmar	1	0.0001	0.0000	−9.3917	−0.0008	3	0.0002	0.0000	−8.3069	−0.0021
Netherlands	35	0.0029	0.0000	−5.8364	−0.0170	43	0.0035	0.0000	−5.6443	−0.0200
New Zealand	20	0.0017	0.0000	−6.3960	−0.0107	20	0.0016	0.0000	−6.4098	−0.0105
Nigeria	9	0.0008	0.0000	−7.1945	−0.0054	9	0.0007	0.0000	−7.2083	−0.0053
Norway	7	0.0006	0.0000	−7.4458	−0.0043	12	0.0010	0.0000	−6.9206	−0.0068
Oman	1	0.0001	0.0000	−9.3917	−0.0008	1	0.0001	0.0000	−9.4055	−0.0008
Pakistan	15	0.0013	0.0000	−6.6837	−0.0084	15	0.0012	0.0000	−6.6974	−0.0083
Philippines	1	0.0001	0.0000	−9.3917	−0.0008	1	0.0001	0.0000	−9.4055	−0.0008
Poland	44	0.0037	0.0000	−5.6076	−0.0206	49	0.0040	0.0000	−5.5137	−0.0222
Portugal	12	0.0010	0.0000	−6.9068	−0.0069	11	0.0009	0.0000	−7.0076	−0.0063
Romania	18	0.0015	0.0000	−6.5014	−0.0098	21	0.0017	0.0000	−6.3610	−0.0110
Russia	29	0.0024	0.0000	−6.0244	−0.0146	19	0.0016	0.0000	−6.4611	−0.0101
S. Vincent & G.	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.4055	−0.0008
Serbia & M.	4	0.0003	0.0000	−8.0055	−0.0027	4	0.0003	0.0000	−8.0192	−0.0026
Sierra Leone	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.4055	−0.0008
Singapore	139	0.0116	0.0001	−4.4573	−0.0517	153	0.0126	0.0002	−4.3751	−0.0551
Slovakia	8	0.0007	0.0000	−7.3123	−0.0049	11	0.0009	0.0000	−7.0076	−0.0063
Slovenia	4	0.0003	0.0000	−8.0055	−0.0027	4	0.0003	0.0000	−8.0192	−0.0026
Somalia	5	0.0004	0.0000	−7.7823	−0.0032	3	0.0002	0.0000	−8.3069	−0.0021
South Africa	14	0.0012	0.0000	−6.7527	−0.0079	14	0.0012	0.0000	−6.7664	−0.0078
South Korea	24	0.0020	0.0000	−6.2137	−0.0124	33	0.0027	0.0000	−5.9090	−0.0160
Spain	27	0.0023	0.0000	−6.0959	−0.0137	25	0.0021	0.0000	−6.1866	−0.0127
Sri Lanka	24	0.0020	0.0000	−6.2137	−0.0124	22	0.0018	0.0000	−6.3145	−0.0114
Sudan	1	0.0001	0.0000	−9.3917	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Sweden	41	0.0034	0.0000	−5.6782	−0.0194	48	0.0039	0.0000	−5.5343	−0.0219
Switzerland	8	0.0007	0.0000	−7.3123	−0.0049	19	0.0016	0.0000	−6.4611	−0.0101
Syria	2	0.0002	0.0000	−8.6986	−0.0015	2	0.0002	0.0000	−8.7123	−0.0014
Taiwan	3	0.0003	0.0000	−8.2931	−0.0021	3	0.0002	0.0000	−8.3069	−0.0021
Thailand	32	0.0027	0.0000	−5.9260	−0.0158	26	0.0021	0.0000	−6.1474	−0.0131
Trinidad & T.	11	0.0009	0.0000	−6.9938	−0.0064	7	0.0006	0.0000	−7.4596	−0.0043
Turkey	1	0.0001	0.0000	−9.3917	−0.0008	2	0.0002	0.0000	−8.7123	−0.0014
Uganda	2	0.0002	0.0000	−8.6986	−0.0015	3	0.0002	0.0000	−8.3069	−0.0021
Ukraine	17	0.0014	0.0000	−6.5585	−0.0093	9	0.0007	0.0000	−7.2083	−0.0053
Uruguay	1	0.0001	0.0000	−9.3917	−0.0008	0	0.0000	0.0000	0.0000	0.0000
USA & Terr.	158	0.0132	0.0002	−4.3291	−0.0571	139	0.0114	0.0001	−4.4710	−0.0511
Venezuela	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0.0000
Vietnam	27	0.0023	0.0000	−6.0959	−0.0137	27	0.0022	0.0000	−6.1097	−0.0136
Zimbabwe	3	0.0003	0.0000	−8.2931	−0.0021	4	0.0003	0.0000	−8.0192	−0.0026
UK	9735	0.8120	0.6593	−0.2083	−0.1691	9862	0.8114	0.6583	−0.2091	−0.1696
Total	11989	1.0000	0.6613		1.1334	12155	1.0000	0.6603		1.1389

Note: Zero rows have been removed
Source: Cambridge Planning and Resource Allocation Office, 2018.

and personal statements favours students with high levels of cultural capital, agency and parental support (Machin & McNally, 2005; Felix *et al.*, 2008; Ma, 2009). In short, Minister Gyimah favours a contextualised admission system that lowers the

Table 3c. Cambridge UG offers by nationality, 2011 and 2012

Country (nationality)	2011	% pop., p	p^2	ln(p)	p.ln(p)	2012	% pop., p	p^2	ln(p)	p.ln(p)
Albania	2	0.0002	0.0000	−8.6947	−0.0015	2	0.0002	0.0000	−8.6944	−0.0015
Australia	32	0.0027	0.0000	−5.9221	−0.0159	40	0.0034	0.0000	−5.6987	−0.0191
Austria	20	0.0017	0.0000	−6.3921	−0.0107	28	0.0023	0.0000	−6.0554	−0.0142
Azerbaijan	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3876	−0.0008
Bahamas	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3876	−0.0008
Bangladesh	2	0.0002	0.0000	−8.6947	−0.0015	2	0.0002	0.0000	−8.6944	−0.0015
Belarus	1	0.0001	0.0000	−9.3878	−0.0008	3	0.0003	0.0000	−8.2890	−0.0021
Belgium	20	0.0017	0.0000	−6.3921	−0.0107	23	0.0019	0.0000	−6.2521	−0.0120
Brazil	2	0.0002	0.0000	−8.6947	−0.0015	2	0.0002	0.0000	−8.6944	−0.0015
Brunei	5	0.0004	0.0000	−7.7784	−0.0033	5	0.0004	0.0000	−7.7781	−0.0033
Bulgaria	20	0.0017	0.0000	−6.3921	−0.0107	27	0.0023	0.0000	−6.0917	−0.0138
Burundi	1	0.0001	0.0000	−9.3878	−0.0008	1	0.0001	0.0000	−9.3876	−0.0008
Canada	49	0.0041	0.0000	−5.4960	−0.0226	47	0.0039	0.0000	−5.5374	−0.0218
China	329	0.0275	0.0008	−3.5918	−0.0990	314	0.0263	0.0007	−3.6382	−0.0957
Colombia	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3876	−0.0008
Croatia	3	0.0003	0.0000	−8.2892	−0.0021	2	0.0002	0.0000	−8.6944	−0.0015
Cyprus	62	0.0052	0.0000	−5.2607	−0.0273	62	0.0052	0.0000	−5.2604	−0.0273
Czech Rep.	16	0.0013	0.0000	−6.6152	−0.0089	22	0.0018	0.0000	−6.2965	−0.0116
Denmark	17	0.0014	0.0000	−6.5546	−0.0093	14	0.0012	0.0000	−6.7485	−0.0079
Egypt	2	0.0002	0.0000	−8.6947	−0.0015	3	0.0003	0.0000	−8.2890	−0.0021
Estonia	10	0.0008	0.0000	−7.0852	−0.0059	10	0.0008	0.0000	−7.0850	−0.0059
Finland	26	0.0022	0.0000	−6.1297	−0.0133	26	0.0022	0.0000	−6.1295	−0.0133
France	83	0.0070	0.0000	−4.9690	−0.0345	65	0.0054	0.0000	−5.2132	−0.0284
Germany	202	0.0169	0.0003	−4.0795	−0.0690	197	0.0165	0.0003	−4.1044	−0.0677
Ghana	1	0.0001	0.0000	−9.3878	−0.0008	2	0.0002	0.0000	−8.6944	−0.0015
Gibraltar	1	0.0001	0.0000	−9.3878	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Greece	35	0.0029	0.0000	−5.8325	−0.0171	36	0.0030	0.0000	−5.8040	−0.0175
Hong Kong	17	0.0014	0.0000	−6.5546	−0.0093	40	0.0034	0.0000	−5.6987	−0.0191
Hungary	26	0.0022	0.0000	−6.1297	−0.0133	36	0.0030	0.0000	−5.8040	−0.0175
Iceland	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3876	−0.0008
India	64	0.0054	0.0000	−5.2289	−0.0280	70	0.0059	0.0000	−5.1391	−0.0301
Indonesia	2	0.0002	0.0000	−8.6947	−0.0015	3	0.0003	0.0000	−8.2890	−0.0021
Iran	4	0.0003	0.0000	−8.0015	−0.0027	4	0.0003	0.0000	−8.0013	−0.0027
Ireland	87	0.0073	0.0001	−4.9219	−0.0359	96	0.0080	0.0001	−4.8232	−0.0388
Israel	5	0.0004	0.0000	−7.7784	−0.0033	3	0.0003	0.0000	−8.2890	−0.0021
Italy	55	0.0046	0.0000	−5.3805	−0.0248	65	0.0054	0.0000	−5.2132	−0.0284
Japan	24	0.0020	0.0000	−6.2098	−0.0125	21	0.0018	0.0000	−6.3430	−0.0112
Jordan	1	0.0001	0.0000	−9.3878	−0.0008	1	0.0001	0.0000	−9.3876	−0.0008
Kazakhstan	8	0.0007	0.0000	−7.3084	−0.0049	6	0.0005	0.0000	−7.5958	−0.0038
Kenya	6	0.0005	0.0000	−7.5961	−0.0038	5	0.0004	0.0000	−7.7781	−0.0033
Latvia	11	0.0009	0.0000	−6.9899	−0.0064	11	0.0009	0.0000	−6.9897	−0.0064
Lebanon	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3876	−0.0008
Lithuania	51	0.0043	0.0000	−5.4560	−0.0233	54	0.0045	0.0000	−5.3986	−0.0244
Luxemburg	4	0.0003	0.0000	−8.0015	−0.0027	3	0.0003	0.0000	−8.2890	−0.0021
Macedonia	1	0.0001	0.0000	−9.3878	−0.0008	1	0.0001	0.0000	−9.3876	−0.0008
Malawi	2	0.0002	0.0000	−8.6947	−0.0015	3	0.0003	0.0000	−8.2890	−0.0021
Malaysia	100	0.0084	0.0001	−4.7826	−0.0400	98	0.0082	0.0001	−4.8026	−0.0394
Malta	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3876	−0.0008
Mauritius	9	0.0008	0.0000	−7.1906	−0.0054	10	0.0008	0.0000	−7.0850	−0.0059
Mexico	1	0.0001	0.0000	−9.3878	−0.0008	2	0.0002	0.0000	−8.6944	−0.0015
Myanmar	2	0.0002	0.0000	−8.6947	−0.0015	1	0.0001	0.0000	−9.3876	−0.0008
Nepal	1	0.0001	0.0000	−9.3878	−0.0008	1	0.0001	0.0000	−9.3876	−0.0008
Netherlands	35	0.0029	0.0000	−5.8325	−0.0171	41	0.0034	0.0000	−5.6740	−0.0195

Table 3c. (Continued)

Country (nationality)	2011	% pop., p	p^2	ln(p)	p.ln(p)	2012	% pop., p	p^2	ln(p)	p.ln(p)
New Zealand	17	0.0014	0.0000	−6.5546	−0.0093	19	0.0016	0.0000	−6.4431	−0.0103
Nigeria	7	0.0006	0.0000	−7.4419	−0.0044	7	0.0006	0.0000	−7.4417	−0.0044
Norway	11	0.0009	0.0000	−6.9899	−0.0064	11	0.0009	0.0000	−6.9897	−0.0064
Pakistan	17	0.0014	0.0000	−6.5546	−0.0093	14	0.0012	0.0000	−6.7485	−0.0079
Palestine	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3876	−0.0008
Peru	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3876	−0.0008
Philippines	1	0.0001	0.0000	−9.3878	−0.0008	1	0.0001	0.0000	−9.3876	−0.0008
Poland	61	0.0051	0.0000	−5.2769	−0.0270	72	0.0060	0.0000	−5.1109	−0.0308
Portugal	10	0.0008	0.0000	−7.0852	−0.0059	10	0.0008	0.0000	−7.0850	−0.0059
Romania	29	0.0024	0.0000	−6.0205	−0.0146	38	0.0032	0.0000	−5.7500	−0.0183
Russia	20	0.0017	0.0000	−6.3921	−0.0107	24	0.0020	0.0000	−6.2095	−0.0125
S. Vincent & G.	1	0.0001	0.0000	−9.3878	−0.0008	1	0.0001	0.0000	−9.3876	−0.0008
Saudi Arabia	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3876	−0.0008
Serbia & M.	9	0.0008	0.0000	−7.1906	−0.0054	12	0.0010	0.0000	−6.9027	−0.0069
Singapore	172	0.0144	0.0002	−4.2403	−0.0611	171	0.0143	0.0002	−4.2459	−0.0608
Slovakia	8	0.0007	0.0000	−7.3084	−0.0049	14	0.0012	0.0000	−6.7485	−0.0079
Slovenia	5	0.0004	0.0000	−7.7784	−0.0033	8	0.0007	0.0000	−7.3081	−0.0049
South Africa	8	0.0007	0.0000	−7.3084	−0.0049	4	0.0003	0.0000	−8.0013	−0.0027
South Korea	39	0.0033	0.0000	−5.7243	−0.0187	40	0.0034	0.0000	−5.6987	−0.0191
Spain	25	0.0021	0.0000	−6.1689	−0.0129	35	0.0029	0.0000	−5.8322	−0.0171
Sri Lanka	24	0.0020	0.0000	−6.2098	−0.0125	18	0.0015	0.0000	−6.4972	−0.0098
Sweden	50	0.0042	0.0000	−5.4758	−0.0229	48	0.0040	0.0000	−5.5164	−0.0222
Switzerland	19	0.0016	0.0000	−6.4434	−0.0103	18	0.0015	0.0000	−6.4972	−0.0098
Syria	2	0.0002	0.0000	−8.6947	−0.0015	1	0.0001	0.0000	−9.3876	−0.0008
Taiwan	2	0.0002	0.0000	−8.6947	−0.0015	2	0.0002	0.0000	−8.6944	−0.0015
Thailand	25	0.0021	0.0000	−6.1689	−0.0129	28	0.0023	0.0000	−6.0554	−0.0142
Trinidad & T.	5	0.0004	0.0000	−7.7784	−0.0033	4	0.0003	0.0000	−8.0013	−0.0027
Turkey	2	0.0002	0.0000	−8.6947	−0.0015	3	0.0003	0.0000	−8.2890	−0.0021
Uganda	3	0.0003	0.0000	−8.2892	−0.0021	2	0.0002	0.0000	−8.6944	−0.0015
Ukraine	3	0.0003	0.0000	−8.2892	−0.0021	4	0.0003	0.0000	−8.0013	−0.0027
USA & Terr.	65	0.0054	0.0000	−5.2134	−0.0284	65	0.0054	0.0000	−5.2132	−0.0284
Vietnam	26	0.0022	0.0000	−6.1297	−0.0133	20	0.0017	0.0000	−6.3918	−0.0107
Zimbabwe	3	0.0003	0.0000	−8.2892	−0.0021	3	0.0003	0.0000	−8.2890	−0.0021
UK	9815	0.8219	0.6755	−0.1961	−0.1612	9725	0.8146	0.6635	−0.2051	−0.1671
Total	11942	1.0000	0.6772		1.0867	11939	1.0000	0.6652		1.1352

Note: Zero rows have been removed
Source: Cambridge Planning and Resource Allocation Office, 2018.

academic requirements for applicants from disadvantaged backgrounds. Other oversubscribed universities in the UK (e.g. University College London and Kings College London) have similar schemes in place (Yorke, 2018a), but Oxford and Cambridge have so far resisted the trend, opting instead for a flagging system that alerts tutors to disadvantaged applicants. Graham Virgo, Pro Vice-Chancellor for Education at Cambridge, is adamant that he will not give '*special treatment to BAME applicants*' because he '*wants students to feel they have secured their place on merit rather than special treatment*' (cited in Yorke, 2018b).

Finally, beyond the students, schools and universities themselves, some responsibility must be accepted by policy-makers, none of whom have encouraged debate on related issues like norm-referenced entrance examinations, which would expose racial

Table 3d. Cambridge UG offers by nationality, 2013 and 2014

Country (nationality)	2013	% pop., p	p^2	ln(p)	p.ln(p)	2014	% pop., p	p^2	ln(p)	p.ln(p)
Albania	2	0.0002	0.0000	−8.6837	−0.0015	3	0.0003	0.0000	−8.2748	−0.0021
Algeria	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3734	−0.0008
Australia	41	0.0035	0.0000	−5.6633	−0.0197	47	0.0040	0.0000	−5.5232	−0.0221
Austria	31	0.0026	0.0000	−5.9429	−0.0156	32	0.0027	0.0000	−5.9077	−0.0161
Azerbaijan	1	0.0001	0.0000	−9.3769	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Bahamas	1	0.0001	0.0000	−9.3769	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Bangladesh	2	0.0002	0.0000	−8.6837	−0.0015	2	0.0002	0.0000	−8.6802	−0.0015
Belarus	2	0.0002	0.0000	−8.6837	−0.0015	2	0.0002	0.0000	−8.6802	−0.0015
Belgium	27	0.0023	0.0000	−6.0810	−0.0139	26	0.0022	0.0000	−6.1153	−0.0135
Botswana	2	0.0002	0.0000	−8.6837	−0.0015	7	0.0006	0.0000	−7.4275	−0.0044
Brazil	4	0.0003	0.0000	−7.9906	−0.0027	3	0.0003	0.0000	−8.2748	−0.0021
Brunei	2	0.0002	0.0000	−8.6837	−0.0015	1	0.0001	0.0000	−9.3734	−0.0008
Bulgaria	27	0.0023	0.0000	−6.0810	−0.0139	27	0.0023	0.0000	−6.0776	−0.0139
Burundi	1	0.0001	0.0000	−9.3769	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Cambodia	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3734	−0.0008
Canada	47	0.0040	0.0000	−5.5267	−0.0220	46	0.0039	0.0000	−5.5448	−0.0217
China	316	0.0268	0.0007	−3.6211	−0.0969	314	0.0267	0.0007	−3.6240	−0.0967
Colombia	1	0.0001	0.0000	−9.3769	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Croatia	5	0.0004	0.0000	−7.7674	−0.0033	6	0.0005	0.0000	−7.5816	−0.0039
Cyprus	55	0.0047	0.0000	−5.3695	−0.0250	48	0.0041	0.0000	−5.5022	−0.0224
Czech Rep.	28	0.0024	0.0000	−6.0447	−0.0143	29	0.0025	0.0000	−6.0061	−0.0148
Denmark	18	0.0015	0.0000	−6.4865	−0.0099	20	0.0017	0.0000	−6.3777	−0.0108
Dominica	1	0.0001	0.0000	−9.3769	−0.0008	1	0.0001	0.0000	−9.3734	−0.0008
Egypt	2	0.0002	0.0000	−8.6837	−0.0015	2	0.0002	0.0000	−8.6802	−0.0015
Estonia	9	0.0008	0.0000	−7.1796	−0.0055	11	0.0009	0.0000	−6.9755	−0.0065
Finland	27	0.0023	0.0000	−6.0810	−0.0139	21	0.0018	0.0000	−6.3289	−0.0113
France	71	0.0060	0.0000	−5.1142	−0.0307	79	0.0067	0.0000	−5.0039	−0.0336
Germany	205	0.0174	0.0003	−4.0539	−0.0704	185	0.0157	0.0002	−4.1530	−0.0653
Ghana	1	0.0001	0.0000	−9.3769	−0.0008	1	0.0001	0.0000	−9.3734	−0.0008
Gibraltar	1	0.0001	0.0000	−9.3769	−0.0008	1	0.0001	0.0000	−9.3734	−0.0008
Greece	31	0.0026	0.0000	−5.9429	−0.0156	29	0.0025	0.0000	−6.0061	−0.0148
Hong Kong	54	0.0046	0.0000	−5.3879	−0.0246	63	0.0054	0.0000	−5.2303	−0.0280
Hungary	38	0.0032	0.0000	−5.7393	−0.0185	50	0.0042	0.0000	−5.4614	−0.0232
Iceland	2	0.0002	0.0000	−8.6837	−0.0015	2	0.0002	0.0000	−8.6802	−0.0015
India	67	0.0057	0.0000	−5.1722	−0.0293	73	0.0062	0.0000	−5.0829	−0.0315
Indonesia	2	0.0002	0.0000	−8.6837	−0.0015	3	0.0003	0.0000	−8.2748	−0.0021
Iran	4	0.0003	0.0000	−7.9906	−0.0027	6	0.0005	0.0000	−7.5816	−0.0039
Iraq	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3734	−0.0008
Ireland	92	0.0078	0.0001	−4.8551	−0.0378	90	0.0076	0.0001	−4.8736	−0.0373
Israel	3	0.0003	0.0000	−8.2783	−0.0021	4	0.0003	0.0000	−7.9871	−0.0027
Italy	81	0.0069	0.0000	−4.9824	−0.0342	93	0.0079	0.0001	−4.8408	−0.0382
Jamaica	1	0.0001	0.0000	−9.3769	−0.0008	1	0.0001	0.0000	−9.3734	−0.0008
Japan	20	0.0017	0.0000	−6.3811	−0.0108	25	0.0021	0.0000	−6.1545	−0.0131
Jordan	1	0.0001	0.0000	−9.3769	−0.0008	2	0.0002	0.0000	−8.6802	−0.0015
Kazakhstan	4	0.0003	0.0000	−7.9906	−0.0027	4	0.0003	0.0000	−7.9871	−0.0027
Kenya	5	0.0004	0.0000	−7.7674	−0.0033	6	0.0005	0.0000	−7.5816	−0.0039
Latvia	15	0.0013	0.0000	−6.6688	−0.0085	11	0.0009	0.0000	−6.9755	−0.0065
Lebanon	1	0.0001	0.0000	−9.3769	−0.0008	1	0.0001	0.0000	−9.3734	−0.0008
Lithuania	53	0.0045	0.0000	−5.4066	−0.0243	48	0.0041	0.0000	−5.5022	−0.0224
Luxemburg	5	0.0004	0.0000	−7.7674	−0.0033	3	0.0003	0.0000	−8.2748	−0.0021
Macedonia	1	0.0001	0.0000	−9.3769	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Malawi	2	0.0002	0.0000	−8.6837	−0.0015	1	0.0001	0.0000	−9.3734	−0.0008
Malaysia	99	0.0084	0.0001	−4.7818	−0.0401	111	0.0094	0.0001	−4.6639	−0.0440

Table 3d. (Continued)

Country (nationality)	2013	% pop., p	p^2	ln(p)	p.ln(p)	2014	% pop., p	p^2	ln(p)	p.ln(p)
Maldives	1	0.0001	0.0000	−9.3769	−0.0008	1	0.0001	0.0000	−9.3734	−0.0008
Malta	2	0.0002	0.0000	−8.6837	−0.0015	2	0.0002	0.0000	−8.6802	−0.0015
Mauritius	10	0.0008	0.0000	−7.0743	−0.0060	8	0.0007	0.0000	−7.2940	−0.0050
Mexico	2	0.0002	0.0000	−8.6837	−0.0015	2	0.0002	0.0000	−8.6802	−0.0015
Moldova	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3734	−0.0008
Myanmar	2	0.0002	0.0000	−8.6837	−0.0015	1	0.0001	0.0000	−9.3734	−0.0008
Nepal	2	0.0002	0.0000	−8.6837	−0.0015	3	0.0003	0.0000	−8.2748	−0.0021
Netherlands	41	0.0035	0.0000	−5.6633	−0.0197	45	0.0038	0.0000	−5.5667	−0.0213
New Zealand	22	0.0019	0.0000	−6.2858	−0.0117	24	0.0020	0.0000	−6.1953	−0.0126
Nigeria	9	0.0008	0.0000	−7.1796	−0.0055	14	0.0012	0.0000	−6.7343	−0.0080
Norway	12	0.0010	0.0000	−6.8920	−0.0070	12	0.0010	0.0000	−6.8885	−0.0070
Oman	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0.0000
Pakistan	18	0.0015	0.0000	−6.4865	−0.0099	13	0.0011	0.0000	−6.8084	−0.0075
Palestine	1	0.0001	0.0000	−9.3769	−0.0008	1	0.0001	0.0000	−9.3734	−0.0008
Peru	1	0.0001	0.0000	−9.3769	−0.0008	1	0.0001	0.0000	−9.3734	−0.0008
Philippines	2	0.0002	0.0000	−8.6837	−0.0015	2	0.0002	0.0000	−8.6802	−0.0015
Poland	76	0.0064	0.0000	−5.0461	−0.0325	81	0.0069	0.0000	−4.9789	−0.0343
Portugal	9	0.0008	0.0000	−7.1796	−0.0055	8	0.0007	0.0000	−7.2940	−0.0050
Romania	59	0.0050	0.0000	−5.2993	−0.0265	74	0.0063	0.0000	−5.0693	−0.0319
Russia	21	0.0018	0.0000	−6.3323	−0.0113	22	0.0019	0.0000	−6.2824	−0.0117
S. Vincent & G.	1	0.0001	0.0000	−9.3769	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Saudi Arabia	1	0.0001	0.0000	−9.3769	−0.0008	1	0.0001	0.0000	−9.3734	−0.0008
Serbia & M.	16	0.0014	0.0000	−6.6043	−0.0089	18	0.0015	0.0000	−6.4830	−0.0099
Singapore	176	0.0149	0.0002	−4.2064	−0.0627	192	0.0163	0.0003	−4.1159	−0.0671
Slovakia	20	0.0017	0.0000	−6.3811	−0.0108	19	0.0016	0.0000	−6.4290	−0.0104
Slovenia	12	0.0010	0.0000	−6.8920	−0.0070	12	0.0010	0.0000	−6.8885	−0.0070
Somalia	1	0.0001	0.0000	−9.3769	−0.0008	2	0.0002	0.0000	−8.6802	−0.0015
South Africa	2	0.0002	0.0000	−8.6837	−0.0015	8	0.0007	0.0000	−7.2940	−0.0050
South Korea	44	0.0037	0.0000	−5.5927	−0.0208	43	0.0037	0.0000	−5.6122	−0.0205
Spain	40	0.0034	0.0000	−5.6880	−0.0193	37	0.0031	0.0000	−5.7625	−0.0181
Sri Lanka	18	0.0015	0.0000	−6.4865	−0.0099	14	0.0012	0.0000	−6.7343	−0.0080
Sweden	52	0.0044	0.0000	−5.4256	−0.0239	47	0.0040	0.0000	−5.5232	−0.0221
Switzerland	15	0.0013	0.0000	−6.6688	−0.0085	11	0.0009	0.0000	−6.9755	−0.0065
Taiwan	2	0.0002	0.0000	−8.6837	−0.0015	1	0.0001	0.0000	−9.3734	−0.0008
Tanzania	1	0.0001	0.0000	−9.3769	−0.0008	1	0.0001	0.0000	−9.3734	−0.0008
Thailand	35	0.0030	0.0000	−5.8215	−0.0172	40	0.0034	0.0000	−5.6845	−0.0193
Trinidad & T.	2	0.0002	0.0000	−8.6837	−0.0015	3	0.0003	0.0000	−8.2748	−0.0021
Turkey	3	0.0003	0.0000	−8.2783	−0.0021	4	0.0003	0.0000	−7.9871	−0.0027
Uganda	2	0.0002	0.0000	−8.6837	−0.0015	0	0.0000	0.0000	0.0000	0.0000
Ukraine	5	0.0004	0.0000	−7.7674	−0.0033	5	0.0004	0.0000	−7.7640	−0.0033
USA & Terr.	63	0.0053	0.0000	−5.2337	−0.0279	52	0.0044	0.0000	−5.4222	−0.0240
Vietnam	16	0.0014	0.0000	−6.6043	−0.0089	14	0.0012	0.0000	−6.7343	−0.0080
Yemen	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3734	−0.0008
Zambia	1	0.0001	0.0000	−9.3769	−0.0008	1	0.0001	0.0000	−9.3734	−0.0008
Zimbabwe	2	0.0002	0.0000	−8.6837	−0.0015	3	0.0003	0.0000	−8.2748	−0.0021
UK	9481	0.8027	0.6443	−0.2198	−0.1764	9384	0.7972	0.6355	−0.2266	−0.1807
Total	11812	1.0000	0.6461		1.2014	11771	1.0000	0.6374		1.2299

Note: Zero rows have been removed
Source: Cambridge Planning and Resource Allocation Office, 2018.

Table 3e. Cambridge UG offers by nationality, 2015 and 2016

Country (nationality)	2015	% pop., p	p^2	ln(p)	p.ln(p)	2016	% pop., p	p^2	ln(p)	p.ln(p)
Afghanistan	1	0.0001	0.0000	−9.3729	−0.0008	1	0.0001	0.0000	−9.3768	−0.0008
Albania	3	0.0003	0.0000	−8.2743	−0.0021	2	0.0002	0.0000	−8.6836	−0.0015
Algeria	1	0.0001	0.0000	−9.3729	−0.0008	1	0.0001	0.0000	−9.3768	−0.0008
Armenia	1	0.0001	0.0000	−9.3729	−0.0008	2	0.0002	0.0000	−8.6836	−0.0015
Australia	60	0.0051	0.0000	−5.2785	−0.0269	70	0.0059	0.0000	−5.1283	−0.0304
Austria	32	0.0027	0.0000	−5.9071	−0.0161	30	0.0025	0.0000	−5.9756	−0.0152
Bangladesh	3	0.0003	0.0000	−8.2743	−0.0021	4	0.0003	0.0000	−7.9905	−0.0027
Belarus	2	0.0002	0.0000	−8.6797	−0.0015	2	0.0002	0.0000	−8.6836	−0.0015
Belgium	19	0.0016	0.0000	−6.4284	−0.0104	19	0.0016	0.0000	−6.4323	−0.0103
Botswana	8	0.0007	0.0000	−7.2934	−0.0050	9	0.0008	0.0000	−7.1796	−0.0055
Brazil	3	0.0003	0.0000	−8.2743	−0.0021	3	0.0003	0.0000	−8.2782	−0.0021
Brunei	3	0.0003	0.0000	−8.2743	−0.0021	3	0.0003	0.0000	−8.2782	−0.0021
Bulgaria	29	0.0025	0.0000	−6.0056	−0.0148	33	0.0028	0.0000	−5.8803	−0.0164
Canada	50	0.0042	0.0000	−5.4609	−0.0232	52	0.0044	0.0000	−5.4255	−0.0239
China	324	0.0275	0.0008	−3.5921	−0.0989	337	0.0285	0.0008	−3.5567	−0.1015
Croatia	8	0.0007	0.0000	−7.2934	−0.0050	9	0.0008	0.0000	−7.1796	−0.0055
Cyprus	52	0.0044	0.0000	−5.4216	−0.0240	59	0.0050	0.0000	−5.2992	−0.0265
Czech Rep.	27	0.0023	0.0000	−6.0770	−0.0139	27	0.0023	0.0000	−6.0809	−0.0139
Denmark	27	0.0023	0.0000	−6.0770	−0.0139	30	0.0025	0.0000	−5.9756	−0.0152
Dominica	1	0.0001	0.0000	−9.3729	−0.0008	1	0.0001	0.0000	−9.3768	−0.0008
Egypt	3	0.0003	0.0000	−8.2743	−0.0021	2	0.0002	0.0000	−8.6836	−0.0015
Estonia	9	0.0008	0.0000	−7.1757	−0.0055	7	0.0006	0.0000	−7.4309	−0.0044
Finland	23	0.0020	0.0000	−6.2374	−0.0122	18	0.0015	0.0000	−6.4864	−0.0099
France	100	0.0085	0.0001	−4.7677	−0.0405	120	0.0102	0.0001	−4.5893	−0.0466
Germany	176	0.0150	0.0002	−4.2024	−0.0629	158	0.0134	0.0002	−4.3142	−0.0577
Ghana	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0.0000
Gibraltar	2	0.0002	0.0000	−8.6797	−0.0015	1	0.0001	0.0000	−9.3768	−0.0008
Greece	26	0.0022	0.0000	−6.1148	−0.0135	34	0.0029	0.0000	−5.8504	−0.0168
Hong Kong	55	0.0047	0.0000	−5.3656	−0.0251	71	0.0060	0.0000	−5.1141	−0.0307
Hungary	57	0.0048	0.0000	−5.3298	−0.0258	73	0.0062	0.0000	−5.0863	−0.0314
Iceland	1	0.0001	0.0000	−9.3729	−0.0008	0	0.0000	0.0000	0.0000	0.0000
India	73	0.0062	0.0000	−5.0824	−0.0315	70	0.0059	0.0000	−5.1283	−0.0304
Indonesia	5	0.0004	0.0000	−7.7634	−0.0033	4	0.0003	0.0000	−7.9905	−0.0027
Iran	5	0.0004	0.0000	−7.7634	−0.0033	6	0.0005	0.0000	−7.5850	−0.0039
Iraq	1	0.0001	0.0000	−9.3729	−0.0008	1	0.0001	0.0000	−9.3768	−0.0008
Ireland	96	0.0082	0.0001	−4.8085	−0.0392	99	0.0084	0.0001	−4.7817	−0.0401
Israel	4	0.0003	0.0000	−7.9866	−0.0027	5	0.0004	0.0000	−7.7673	−0.0033
Italy	92	0.0078	0.0001	−4.8511	−0.0379	78	0.0066	0.0000	−5.0201	−0.0332
Jamaica	1	0.0001	0.0000	−9.3729	−0.0008	1	0.0001	0.0000	−9.3768	−0.0008
Japan	28	0.0024	0.0000	−6.0407	−0.0144	26	0.0022	0.0000	−6.1187	−0.0135
Jordan	3	0.0003	0.0000	−8.2743	−0.0021	2	0.0002	0.0000	−8.6836	−0.0015
Kazakhstan	1	0.0001	0.0000	−9.3729	−0.0008	2	0.0002	0.0000	−8.6836	−0.0015
Kenya	3	0.0003	0.0000	−8.2743	−0.0021	3	0.0003	0.0000	−8.2782	−0.0021
Latvia	9	0.0008	0.0000	−7.1757	−0.0055	10	0.0008	0.0000	−7.0742	−0.0060
Lebanon	1	0.0001	0.0000	−9.3729	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Lithuania	43	0.0037	0.0000	−5.6117	−0.0205	44	0.0037	0.0000	−5.5926	−0.0208
Luxemburg	4	0.0003	0.0000	−7.9866	−0.0027	6	0.0005	0.0000	−7.5850	−0.0039
Macedonia	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3768	−0.0008
Malawi	2	0.0002	0.0000	−8.6797	−0.0015	3	0.0003	0.0000	−8.2782	−0.0021
Malaysia	128	0.0109	0.0001	−4.5209	−0.0492	140	0.0119	0.0001	−4.4351	−0.0526
Maldives	1	0.0001	0.0000	−9.3729	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Malta	2	0.0002	0.0000	−8.6797	−0.0015	1	0.0001	0.0000	−9.3768	−0.0008
Mauritius	3	0.0003	0.0000	−8.2743	−0.0021	3	0.0003	0.0000	−8.2782	−0.0021

Table 3e. (Continued)

Country (nationality)	2015	% pop., p	p^2	ln(p)	p.ln(p)	2016	% pop., p	p^2	ln(p)	p.ln(p)
Mexico	1	0.0001	0.0000	−9.3729	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Moldova	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3768	−0.0008
Myanmar	1	0.0001	0.0000	−9.3729	−0.0008	1	0.0001	0.0000	−9.3768	−0.0008
Nepal	2	0.0002	0.0000	−8.6797	−0.0015	3	0.0003	0.0000	−8.2782	−0.0021
Netherlands	48	0.0041	0.0000	−5.5017	−0.0224	52	0.0044	0.0000	−5.4255	−0.0239
New Zealand	22	0.0019	0.0000	−6.2818	−0.0117	25	0.0021	0.0000	−6.1579	−0.0130
Nigeria	14	0.0012	0.0000	−6.7338	−0.0080	10	0.0008	0.0000	−7.0742	−0.0060
Norway	0	0.0000	0.0000	0.0000	0.0000	14	0.0012	0.0000	−6.7377	−0.0080
Pakistan	16	0.0014	0.0000	−6.6003	−0.0090	17	0.0014	0.0000	−6.5436	−0.0094
Palestine	1	0.0001	0.0000	−9.3729	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Peru	0	0.0000	0.0000	0.0000	0.0000	1	0.0001	0.0000	−9.3768	−0.0008
Philippines	1	0.0001	0.0000	−9.3729	−0.0008	1	0.0001	0.0000	−9.3768	−0.0008
Poland	75	0.0064	0.0000	−5.0554	−0.0322	80	0.0068	0.0000	−4.9948	−0.0338
Portugal	13	0.0011	0.0000	−6.8079	−0.0075	17	0.0014	0.0000	−6.5436	−0.0094
Romania	83	0.0071	0.0000	−4.9540	−0.0349	93	0.0079	0.0001	−4.8442	−0.0381
Russia	20	0.0017	0.0000	−6.3772	−0.0108	23	0.0019	0.0000	−6.2413	−0.0122
Saudi Arabia	1	0.0001	0.0000	−9.3729	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Serbia & M.	19	0.0016	0.0000	−6.4284	−0.0104	20	0.0017	0.0000	−6.3811	−0.0108
Singapore	221	0.0188	0.0004	−3.9747	−0.0747	246	0.0208	0.0004	−3.8715	−0.0806
Slovakia	23	0.0020	0.0000	−6.2374	−0.0122	21	0.0018	0.0000	−6.3323	−0.0113
Slovenia	9	0.0008	0.0000	−7.1757	−0.0055	9	0.0008	0.0000	−7.1796	−0.0055
Somalia	2	0.0002	0.0000	−8.6797	−0.0015	1	0.0001	0.0000	−9.3768	−0.0008
South Africa	6	0.0005	0.0000	−7.5811	−0.0039	9	0.0008	0.0000	−7.1796	−0.0055
South Korea	45	0.0038	0.0000	−5.5662	−0.0213	50	0.0042	0.0000	−5.4648	−0.0231
Spain	39	0.0033	0.0000	−5.7093	−0.0189	45	0.0038	0.0000	−5.5701	−0.0212
Sri Lanka	14	0.0012	0.0000	−6.7338	−0.0080	11	0.0009	0.0000	−6.9789	−0.0065
Sudan	1	0.0001	0.0000	−9.3729	−0.0008	1	0.0001	0.0000	−9.3768	−0.0008
Sweden	43	0.0037	0.0000	−5.6117	−0.0205	43	0.0036	0.0000	−5.6156	−0.0204
Switzerland	12	0.0010	0.0000	−6.8880	−0.0070	16	0.0014	0.0000	−6.6042	−0.0089
Taiwan	4	0.0003	0.0000	−7.9866	−0.0027	5	0.0004	0.0000	−7.7673	−0.0033
Tanzania	1	0.0001	0.0000	−9.3729	−0.0008	0	0.0000	0.0000	0.0000	0.0000
Thailand	38	0.0032	0.0000	−5.7353	−0.0185	33	0.0028	0.0000	−5.8803	−0.0164
Trinidad & T.	2	0.0002	0.0000	−8.6797	−0.0015	2	0.0002	0.0000	−8.6836	−0.0015
Turkey	5	0.0004	0.0000	−7.7634	−0.0033	5	0.0004	0.0000	−7.7673	−0.0033
Ukraine	8	0.0007	0.0000	−7.2934	−0.0050	6	0.0005	0.0000	−7.5850	−0.0039
USA & Terr.	68	0.0058	0.0000	−5.1534	−0.0298	79	0.0067	0.0000	−5.0073	−0.0335
Venezuela	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0.0000
Vietnam	16	0.0014	0.0000	−6.6003	−0.0090	13	0.0011	0.0000	−6.8118	−0.0075
Yemen	1	0.0001	0.0000	−9.3729	−0.0008	1	0.0001	0.0000	−9.3768	−0.0008
Zimbabwe	1	0.0001	0.0000	−9.3729	−0.0008	1	0.0001	0.0000	−9.3768	−0.0008
UK	9278	0.7886	0.6219	−0.2375	−0.1873	9173	0.7766	0.6032	−0.2528	−0.1963
Total	11765	1.0000	0.6240		1.2648	11811	1.0000	0.6055		1.3223

Note: Zero rows have been removed
Source: Cambridge Planning and Resource Allocation Office, 2018.

discrimination most clearly, or universities operating (in combination with outreach programmes) blind admissions systems, which would do away with extraneous features like personal statements and admission interviews. Instead of threatening (supposedly) well-intentioned universities, it might be more profitable for policy-makers to work with them on measures that have already borne fruit in the area of BAME applications generally. Sir Michael Barber, recently appointed chairman of the Office

Table 4. Oxford nationality indices 2007–2016

Oxford	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Shannon (*H*)	0.8804	0.9438	1.0161	1.0326	1.0624	1.0841	1.1252	1.1238	1.2352	1.2230
True *H*	2.4118	2.5698	2.7624	2.8084	2.8933	2.9567	3.0809	3.0766	3.4389	3.3973
No. non-zero (*n*)	64	59	69	64	62	72	72	62	72	70
ln(*n*)	4.1589	4.0775	4.2341	4.1589	4.1271	4.2767	4.2767	4.1271	4.2767	4.2485
Shannon equitability	0.2117	0.2315	0.2400	0.2483	0.2574	0.2535	0.2631	0.2723	0.2888	0.2879
Simpson (λ)	0.7301	0.7107	0.6961	0.6854	0.6804	0.6701	0.6572	0.6530	0.6249	0.6283
True λ	1.370	1.4071	1.4366	1.4589	1.4698	1.4924	1.5216	1.5314	1.6003	1.5917

Table 5. Cambridge nationality indices 2007–2016

Cambridge	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Shannon (*H*)	1.0287	1.0855	1.1334	1.1389	1.0867	1.1352	1.2014	1.2299	1.2648	1.3223
True *H*	2.7973	2.9608	3.1061	3.1234	2.9646	3.1118	3.3248	3.4208	3.5425	3.7520
No. non-zero (*n*)	98	89	92	87	79	86	93	91	87	85
ln(*n*)	4.5850	4.4886	4.5218	4.4659	4.3694	4.4543	4.5326	4.5109	4.4659	4.4427
Shannon equitability	0.2244	0.2418	0.2506	0.2550	0.2487	0.2549	0.2651	0.2727	0.2832	0.2976
Simpson (λ)	0.6955	0.6767	0.6613	0.6603	0.6772	0.6652	0.6461	0.6374	0.6240	0.6055
True λ	1.4378	1.4778	1.5121	1.5145	1.4766	1.5033	1.5478	1.5688	1.6026	1.6516

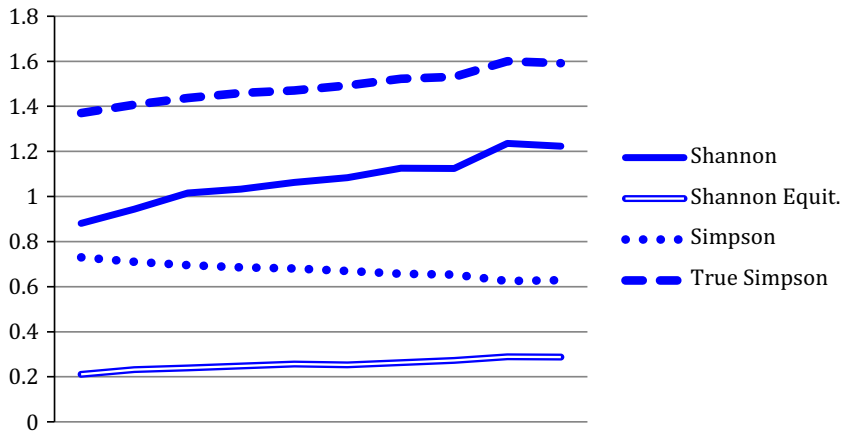

Figure 1. Oxford nationality indices trend 2007–2016 [Colour figure can be viewed at wileyonlinelibrary.com]

for Students, is a case in point. He has publicly threatened to '*fine universities*' by slashing their tuition fees by a third if they '*fail to improve diversity*' (Barber, 2018), but to his credit, he recognises that the whole issue of widening access generally, and in particular raising black-student achievement in schools and universities, is '*not just an Oxbridge challenge*':

> *It is one for more selective universities generally and for those courses that are toughest to get into at other universities*. (Barber, 2018).

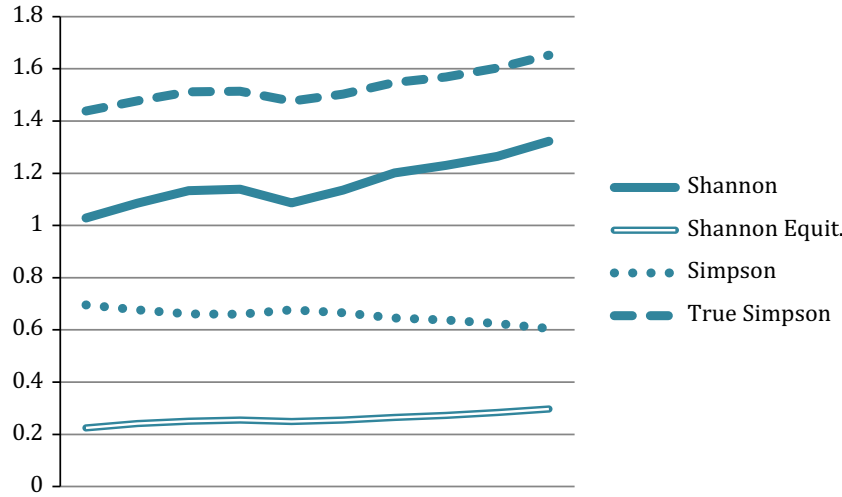

Figure 2. Cambridge nationality indices trend 2007–2016 [Colour figure can be viewed at wileyonlinelibrary.com]

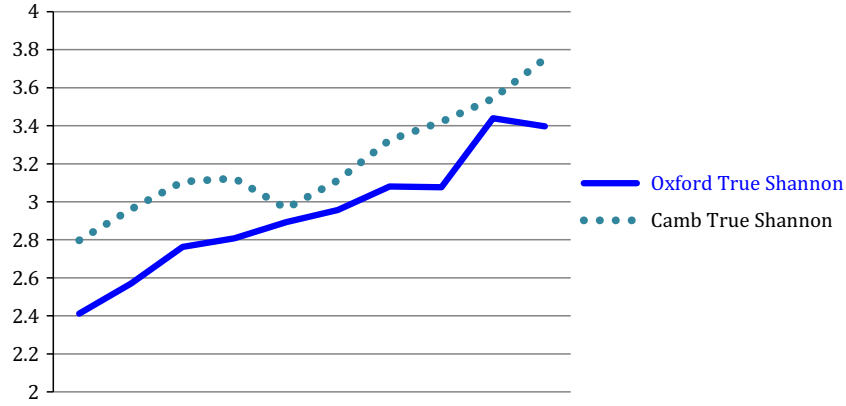

Figure 3. Oxford and Cambridge 'true Shannon' nationality indices trend 2007–2016 [Colour figure can be viewed at wileyonlinelibrary.com]

In doing so, Michael Barber has widened the debate from over-subscribed *universities* to over-subscribed *courses in universities*, thus closing the circle on the proposal advocated by his overseeing minister, Sam Gyimah, for contextualised admission.

> *Universities* [should] *recognise in* [their] *admission policies how much harder it can be for a young person at a tough inner-city school to get good A-levels, by reducing required grades a little.* (Barber, 2018)

However, the Barber–Gyimah proposals are thin on detail: how to calculate the reduction in academic attainment that should be made for disadvantaged applicants

Table 6a. Oxford UK/Home undergraduate offers by ethnicity, 2007 and 2008 (*Source:* Oxford Public Tableau, 2018b)

Ethnicity	2007	% pop., p	p^2	ln(p)	p.ln(p)	2008	% pop., p	p^2	ln(p)	p.ln(p)
White	2597	0.8642	0.7469	−0.1459	−0.1261	2543	0.8772	0.7695	−0.1310	−0.1149
Bangladeshi	2	0.0007	0.0000	−7.3149	−0.0049	3	0.0010	0.0000	−6.8735	−0.0071
Indian	91	0.0303	0.0009	−3.4972	−0.1059	70	0.0241	0.0006	−3.7236	−0.0899
Pakistani	16	0.0053	0.0000	−5.2354	−0.0279	18	0.0062	0.0000	−5.0817	−0.0316
Other Asian	30	0.0100	0.0001	−4.6068	−0.0460	31	0.0107	0.0001	−4.5381	−0.0485
Black-African	27	0.0090	0.0001	−4.7122	−0.0423	29	0.0100	0.0001	−4.6048	−0.0461
Black-Caribbean	8	0.0027	0.0000	−5.9286	−0.0158	7	0.0024	0.0000	−6.0262	−0.0146
Other Black	1	0.0003	0.0000	−8.0080	−0.0027	0	0.0000	0.0000	0.0000	0.0000
Chinese	55	0.0183	0.0003	−4.0007	−0.0732	33	0.0114	0.0001	−4.4756	−0.0509
Mixed White & Asian	84	0.0280	0.0008	−3.5772	−0.1000	77	0.0266	0.0007	−3.6283	−0.0964
Mixed White & Black Afr.	13	0.0043	0.0000	−5.4431	−0.0235	8	0.0028	0.0000	−5.8927	−0.0163
Mixed White & Black Carib.	15	0.0050	0.0000	−5.3000	−0.0265	13	0.0045	0.0000	−5.4072	−0.0242
Other Mixed	38	0.0126	0.0002	−4.3704	−0.0553	37	0.0128	0.0002	−4.3612	−0.0557
Other	28	0.0093	0.0001	−4.6758	−0.0436	30	0.0103	0.0001	−4.5709	−0.0473
Total	3005	1	0.7494		0.6936	2899	1	0.7715		0.6434

Table 6b. Oxford UK/Home undergraduate offers by ethnicity, 2009 and 2010 (*Source:* Oxford Public Tableau, 2018b)

Ethnicity	2009	% pop., p	p^2	ln(p)	p.ln(p)	2010	% pop., p	p^2	ln(p)	p.ln(p)
White	2481	0.8730	0.7621	−0.1358	−0.1186	2441	0.8743	0.7644	−0.1344	−0.1175
Bangladeshi	4	0.0014	0.0000	−6.5660	−0.0092	6	0.0021	0.0000	−6.1428	−0.0132
Indian	84	0.0296	0.0009	−3.5214	−0.1041	85	0.0304	0.0009	−3.4919	−0.1063
Pakistani	17	0.0060	0.0000	−5.1190	−0.0306	22	0.0079	0.0001	−4.8435	−0.0382
Other Asian	32	0.0113	0.0001	−4.4865	−0.0505	32	0.0115	0.0001	−4.4688	−0.0512
Black-African	23	0.0081	0.0001	−4.8168	−0.0390	15	0.0054	0.0000	−5.2265	−0.0281
Black-Caribbean	1	0.0004	0.0000	−7.9523	−0.0028	10	0.0036	0.0000	−5.6319	−0.0202
Other Black	3	0.0011	0.0000	−6.8537	−0.0072	1	0.0004	0.0000	−7.9345	−0.0028
Chinese	49	0.0172	0.0003	−4.0604	−0.0700	30	0.0107	0.0001	−4.5333	−0.0487
Mixed White & Asian	84	0.0296	0.0009	−3.5214	−0.1041	81	0.0290	0.0008	−3.5401	−0.1027
Mixed White & Black Afr.	7	0.0025	0.0000	−6.0064	−0.0148	10	0.0036	0.0000	−5.6319	−0.0202
Mixed White & Black Carib.	8	0.0028	0.0000	−5.8728	−0.0165	10	0.0036	0.0000	−5.6319	−0.0202
Other Mixed	38	0.0134	0.0002	−4.3147	−0.0577	32	0.0115	0.0001	−4.4688	−0.0512
Other	11	0.0039	0.0000	−5.5544	−0.0215	17	0.0061	0.0000	−5.1013	−0.0311
Total	2842	1	0.7646		0.6467	2792	1	0.7667		0.6515

Table 6c. Oxford UK/Home undergraduate offers by ethnicity, 2011 and 2012 (*Source:* Oxford Public Tableau, 2018b)

Ethnicity	2011	% pop., p	p^2	ln(p)	p.ln(p)	2012	% pop., p	p^2	ln(p)	p.ln(p)
White	2423	0.8716	0.7597	−0.1374	−0.1198	2492	0.8824	0.7787	−0.1251	−0.1104
Arab*	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0.0000
Bangladeshi	8	0.0029	0.0000	−5.8508	−0.0168	9	0.0032	0.0000	−5.7487	−0.0183
Indian	74	0.0266	0.0007	−3.6261	−0.0965	74	0.0262	0.0007	−3.6418	−0.0954
Pakistani	9	0.0032	0.0000	−5.7330	−0.0186	22	0.0078	0.0001	−4.8549	−0.0378
Other Asian	31	0.0112	0.0001	−4.4962	−0.0501	18	0.0064	0.0000	−5.0555	−0.0322
Black-African	28	0.0101	0.0001	−4.5980	−0.0463	24	0.0085	0.0001	−4.7679	−0.0405
Black-Caribbean	7	0.0025	0.0000	−5.9843	−0.0151	3	0.0011	0.0000	−6.8473	−0.0073
Other Black	1	0.0004	0.0000	−7.9302	−0.0029	2	0.0007	0.0000	−7.2528	−0.0051
Chinese	34	0.0122	0.0001	−4.4038	−0.0539	36	0.0127	0.0002	−4.3624	−0.0556
Mixed White & Asian	68	0.0245	0.0006	−3.7107	−0.0908	72	0.0255	0.0007	−3.6692	−0.0936
Mixed White & Black Afr.	12	0.0043	0.0000	−5.4453	−0.0235	22	0.0078	0.0001	−4.8549	−0.0378
Mixed White & Black Carib.	22	0.0079	0.0001	−4.8392	−0.0383	11	0.0039	0.0000	−5.5480	−0.0216
Other Mixed	44	0.0158	0.0003	−4.1460	−0.0656	31	0.0110	0.0001	−4.5119	−0.0495
Other	19	0.0068	0.0000	−4.9858	−0.0341	8	0.0028	0.0000	−5.8665	−0.0166
Total	2780	1	0.7617		0.6722	2824	1	0.7806		0.6218

Note: *Category did not exist in 2007–2010.

Table 6d. Oxford UK/Home undergraduate offers by ethnicity, 2013 and 2014 (*Source:* Oxford Public Tableau, 2018b)

Ethnicity	2013	% pop., p	p^2	ln(p)	p.ln(p)	2014	% pop., p	p^2	ln(p)	p.ln(p)
White	2392	0.8580	0.7361	−0.1532	−0.1314	2412	0.8593	0.7384	−0.1517	−0.1303
Arab	5	0.0018	0.0000	−6.3236	−0.0113	6	0.0021	0.0000	−6.1481	−0.0131
Bangladeshi	6	0.0022	0.0000	−6.1413	−0.0132	9	0.0032	0.0000	−5.7426	−0.0184
Indian	95	0.0341	0.0012	−3.3792	−0.1151	71	0.0253	0.0006	−3.6772	−0.0930
Pakistani	14	0.0050	0.0000	−5.2940	−0.0266	12	0.0043	0.0000	−5.4550	−0.0233
Other Asian	31	0.0111	0.0001	−4.4991	−0.0500	36	0.0128	0.0002	−4.3564	−0.0559
Black-African	26	0.0093	0.0001	−4.6750	−0.0436	28	0.0100	0.0001	−4.6077	−0.0460
Black-Caribbean	5	0.0018	0.0000	−6.3236	−0.0113	11	0.0039	0.0000	−5.5420	−0.0217
Other Black	1	0.0004	0.0000	−7.9331	−0.0028	5	0.0018	0.0000	−6.3304	−0.0113
Chinese	45	0.0161	0.0003	−4.1264	−0.0666	38	0.0135	0.0002	−4.3023	−0.0582
Mixed White & Asian	85	0.0305	0.0009	−3.4904	−0.1064	97	0.0346	0.0012	−3.3652	−0.1163
Mixed White & Black Afr.	13	0.0047	0.0000	−5.3681	−0.0250	16	0.0057	0.0000	−5.1673	−0.0295
Mixed White & Black Carib.	10	0.0036	0.0000	−5.6305	−0.0202	21	0.0075	0.0001	−4.8953	−0.0366
Other Mixed	47	0.0169	0.0003	−4.0829	−0.0688	29	0.0103	0.0001	−4.5726	−0.0472
Other	13	0.0047	0.0000	−5.3681	−0.0250	16	0.0057	0.0000	−5.1673	−0.0295
Total	2788	1.0000	0.7390		0.7176	2807	1.0000	0.7409		0.7303

Table 6e. Oxford UK/Home undergraduate offers by ethnicity, 2015 and 2016 (*Source:* Oxford Public Tableau, 2018b)

Ethnicity	2015	% pop., p	p^2	ln(p)	p.ln(p)	2016	% pop., p	p^2	ln(p)	p.ln(p)
White	2391	0.8545	0.7302	−0.1572	−0.1343	2424	0.8313	0.6910	−0.1848	−0.1536
Arab	4	0.0014	0.0000	−6.5504	−0.0094	14	0.0048	0.0000	−5.3389	−0.0256
Bangladeshi	6	0.0021	0.0000	−6.1449	−0.0132	20	0.0069	0.0000	−4.9822	−0.0342
Indian	78	0.0279	0.0008	−3.5800	−0.0998	97	0.0333	0.0011	−3.4033	−0.1132
Pakistani	16	0.0057	0.0000	−5.1641	−0.0295	28	0.0096	0.0001	−4.6458	−0.0446
Other Asian	27	0.0096	0.0001	−4.6408	−0.0448	37	0.0127	0.0002	−4.3671	−0.0554
Black-African	41	0.0147	0.0002	−4.2231	−0.0619	40	0.0137	0.0002	−4.2891	−0.0588
Black-Caribbean	8	0.0029	0.0000	−5.8572	−0.0167	12	0.0041	0.0000	−5.4931	−0.0226
Other Black	0	0.0000	0.0000	0.0000	0.0000	2	0.0007	0.0000	−7.2848	−0.0050
Chinese	48	0.0172	0.0003	−4.0655	−0.0697	45	0.0154	0.0002	−4.1713	−0.0644
Mixed White & Asian	94	0.0336	0.0011	−3.3934	−0.1140	104	0.0357	0.0013	−3.3336	−0.1189
Mixed White & Black Afr.	17	0.0061	0.0000	−5.1034	−0.0310	17	0.0058	0.0000	−5.1448	−0.0300
Mixed White & Black Carib.	14	0.0050	0.0000	−5.2976	−0.0265	18	0.0062	0.0000	−5.0876	−0.0314
Other Mixed	44	0.0157	0.0002	−4.1525	−0.0653	47	0.0161	0.0003	−4.1278	−0.0665
Other	10	0.0036	0.0000	−5.6341	−0.0201	11	0.0038	0.0000	−5.5801	−0.0210
Total	2798	1	0.7331		0.7363	2916	1	0.6945		0.8453

Table 7. Oxford's ethnicity indices, 2007–2016

Oxford	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Shannon (H)	0.6936	0.6434	0.6467	0.6515	0.6722	0.6218	0.7176	0.7303	0.7363	0.8453
True H	2.0009	1.9029	1.9092	1.9184	1.9585	1.8623	2.0495	2.0757	2.0882	2.3287
No. non-zero (n)	14	13	14	14	14	14	15	15	14	15
ln(n)	2.6391	2.5649	2.6391	2.6391	2.6391	2.6391	2.7081	2.7081	2.6391	2.7081
Shannon equitability	0.2628	0.2508	0.2450	0.2469	0.2547	0.2356	0.2650	0.2697	0.2790	0.3121
Simpson (λ)	0.7494	0.7715	0.7646	0.7667	0.7617	0.7806	0.7390	0.7409	0.7331	0.6945
True λ	1.3344	1.2962	1.3079	1.3043	1.3129	1.2811	1.3532	1.3497	1.3641	1.4399

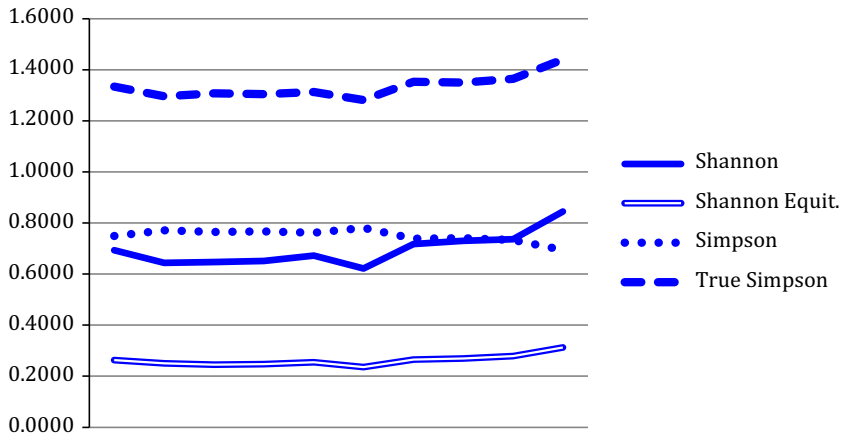

Figure 4. Oxford ethnicity indices trend, 2007–2016 [Colour figure can be viewed at wileyonlinelibrary.com]

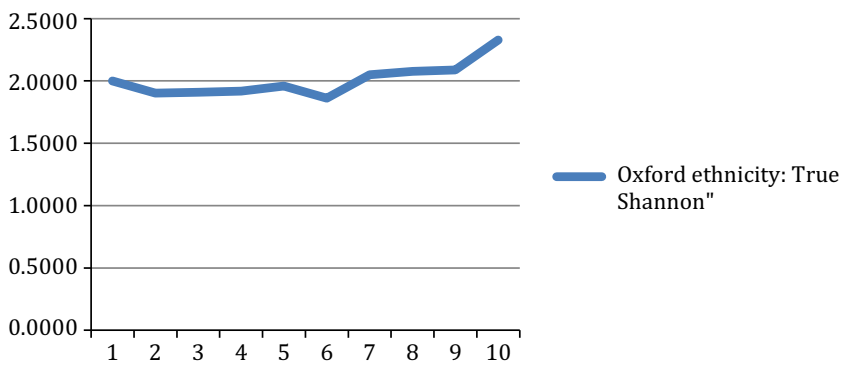

Figure 5. Oxford 'true Shannon' ethnicity index trend, 2007–2016 [Colour figure can be viewed at wileyonlinelibrary.com]

and under what circumstances; what the proposed scale of 'toughness' for schools should be; how universities should compare one tough inner-city school with another; and whether 'being black' trumps 'being poor' when it comes to setting offers for admission. The irony is that Michael Barber was one of the architects of the last Labour government's policy on marketisation in education, which has helped to bring higher education to its current predicament. The powerful Public Accounts Committee (2018) agrees. While being clear that progress had been too 'incremental' and not 'transformational' enough, and that 'universities were not pulling their weight' on widening participation, the watchdog was unequivocal in its view that competition and marketisation in higher education had *not* resulted in 'the market working in students' best interests'. And this is clearly the fault of politicians, not universities. It is too convenient for policy-makers that when quasi-markets in education work, the improvement can be attributed to market freedom; and when they don't work, as in higher education in the UK, the failure must be corrected by greater regulation.

NOTES

[1] 'Oxbridge' is a (non-pejorative) portmanteau word for Oxford and Cambridge universities. It is in common usage across the UK and worldwide.

[2] There is also a spatial component to diversity, and ecologists use the terms 'alpha', 'beta' and 'gamma diversity' to describe it. Alpha diversity is the diversity of a local site; gamma diversity is the diversity of a region of multiple sites; and beta diversity is gamma diversity divided by alpha diversity, and is a measure of the *dissimilarity* between the local and the regional (Whittaker *et al.*, 2001). Spatiality is not applicable to our analysis of Oxbridge admissions, but it would be applicable if the diversity for the entire UK university sector were known,[2] in which case the ethnic diversity of each university would be an α diversity, the ethnic diversity of the university sector the γ diversity and β ($= \gamma/\alpha$) diversity our measure of the ethnic dissimilarity between each university and the sector as a whole.

[3] Although the equation above uses the natural logarithm, any base logarithm could be used just as easily, though each version would generate its own measurement unit. This means that comparing Shannon indices that have used different bases requires them first to be converted to the same base, which can be done in the usual manner (Kelly, 2016): changing from base a to base b just entails multiplying a by $\log_b a$.

[4] The Gini–Simpson index is sometimes (confusingly) called 'Simpson's index of diversity' and in ecology is called the 'probability of interspecific encounter' (PIE).

[5] In the sense that they are either entirely non-increasing or entirely non-decreasing.

[6] In economics, it is called the 'numbers equivalent'.

[7] A relatively simple proof can be found in Jost (2006).

[8] 'Nationality' is not the same as 'domicile'; for example, a Chinese student normally resident in Austria and offered a place at Oxford is classified as Chinese and not as Austrian, irrespective of whether or not that student is eligible for EU fees.

[9] 'Target Oxbridge is a free programme that helps black African and Caribbean students, and students of mixed race with black African and Caribbean heritage, to increase their chances of winning a place' (Oluboyede, 2018).

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Appendix A: Further details of the Shannon index

The Shannon index is based on the weighted geometric mean of the proportional populations or fractions in each type or category:

$$H = -\sum_{i=1}^{R} p_i \ln p_i = -\sum_{i=1}^{R} \ln p_i^{p_i}$$
$$= (\ln p1^{p1} + \ln p2^{p2} + \ldots + \ln pR^{pR})$$

Appendix B: The case of non-replacement in the Simpson index

If the dataset is very large, non-replacement is not a practical problem in terms of the calculated result—not replacing the individual would give approximately the same result—but in small datasets the difference would be significant, so if the dataset is small, and if *non-replacement* (nr) is assumed, the Simpson formula changes to:

$$\lambda_{nr} = [\sum_{i=1}^{R} n_i(n_i - 1)]/N(N - 1)$$

where n_i is the number of individuals of the ith ethnicity and N is the total number of individuals in the dataset.

I have found something very similar to this revised version of the Simpson index in microbiology. It is known as the Hunter–Gaston index.

Appendix C: The inverse Simpson and the Gini–Simpson

The inverse Simpson (λ^{-1}) is sometimes called 'Simpson D' and is given by the formula:

$$D = \lambda^{-1} = 1/\sum_{i=1}^{R} p_i^2$$

Whereas the usual Simpson λ represents the probability that two students randomly selected will belong to *the same* ethnicity, the *inverse* Simpson represents the probability that the two individuals taken from the sample will belong to *different* types.

For a given richness, λ^{-1} increases as the evenness increases and for a given evenness, λ^{-1} increases as the richness increases. Evenness (V) can be calculated by taking λ^{-1} and expressing it as a proportion of the maximum value of λ^{-1}. This occurs when students are evenly distributed across all ethnicities and equals R. Evenness takes a value between 0 and 1, with 1 being complete evenness:

$$V = \lambda^{-1}/\lambda^{-1}_{\max} = [1/\sum_{i=1}^{R} p_i^2] \div R$$

The Gini–Simpson index ($1 - \lambda$) is like the inverse Simpson (λ^{-1}) in that it represents the probability that two students taken at random from a dataset (with replacement) are from different ethnic backgrounds. I have found something very similar to the Gini–Simpson in ecology—the PIE—and another one in management studies known as the 'Gibbs–Martin' or 'Blau' index. Their provenance is uncertain.

Appendix D: More about true diversity

It can be shown that true diversity is the reciprocal of the weighted power mean M_{q-1}:

$${}^qD = 1/M_{q-1}$$

where the sum of the weights is always assumed to be unity.

True diversity therefore depends on q, the exponent of the fractional populations in the index; q is the 'order' of the diversity. It defines the sensitivity of the diversity value to rare and common ethnic types; increasing the value of q increases the effective weight given to the most populous type.

- Diversity of order zero ($q = 0$) is completely insensitive to varying populations. The weights of the ethnic types exactly cancel out the fractional populations, so the weighted mean of the p_i values equals $1/R$, even when all ethnicities are *not* equally abundant. At $q = 0$, the *effective* number of ethnicities, ${}^0D$, is therefore equal to the *actual* number of ethnicities, R, and so ${}^0D$ is simply the 'richness', R.
- All values of $0 < q < 1$ give diversities that favour *rare* ethnicities disproportionately, while all values of $q > 1$ disproportionately favour the most *common* ethnicities.
- ${}^qD$ is undefined at $q = 1$, but its *limit* exists and equals the weighted geometric mean of the p_i values, with each ethnicity weighted by its own fractional population. When $q = 2$, the index is equivalent to the weighted arithmetic mean.
- q is generally limited to non-negative values because negative values of q would give rare ethnicities so much more weight than abundant ones that ${}^qD$ would exceed R (the case when $q = 0$).
- The true diversity of the Shannon index (H) is based on the weighted geometric mean of the fractional populations in each ethnicity, which is the natural logarithm of true diversity with $q = 1$.
- By comparing the equation used to calculate the Simpson index (λ) with the equations used to calculate true diversity, it can be shown that $1/\lambda$ equals ${}^2D$; in other words, the Simpson index is true diversity with $q = 2$, and therefore equals the corresponding basic sum.

True diversity (${}^qD$) behaves intuitively. When each category of a population is divided into two equal sub-populations (e.g. by dividing each ethnicity into male and female) and then a new true diversity (${}^qD^*$) is calculated for each sub-population as if it were a distinct category, the value of ${}^qD^*$ is exactly double the value of the original ${}^qD$.