

# Self-assessment for the 2020-21 to 2024-25 Access and Participation Plan

Identifying applicant characteristics for which there are undergraduate admissions gaps at the University of Cambridge

## **Executive summary**

This paper contains part of our 2019 self-assessment of the University of Cambridge's current, and recent, admissions position (it is designed to be read alongside the 2020-21 to 2024-25 Access and Participation Plan, which contains the rest of the assessment).<sup>1</sup>

This self-assessment identifies where there are differences between entry rates (the percentage of applicants with a particular characteristic that went on to be admitted to the University) to the University of Cambridge for UK-domiciled undergraduate applicants with particular characteristics (such as age, ethnicity, or using geo-demographic data), and seeks to explore reasons for these differences. Entry rates for specific groups of undergraduate applicants (such as mature applicants) were compared to the overall entry rate for all UK-domiciled undergraduate entrants in order to identify characteristics for which the University of Cambridge has current entry rate gaps (i.e. admits a different number of entrants from these groups than would be expected based on the number of applicants from these groups).

This paper predominantly focuses on the groups where entry rate gaps indicate that undergraduate applicants from these groups are <u>less</u> likely to be admitted to the University of Cambridge than the overall undergraduate applicant population (i.e. 'negative' entry rate gaps).

The table on the following page summarises the current 'negative' entry rate gaps for these groups, the extent of these gaps, whether they have changed in recent years, and whether/how these gaps can currently be explained by attainment, offer rate, or post-offer attrition (due to applicants not accepting an offer, or not meeting the requirements of their offer). Where 'negative' entry rate gaps are not yet fully understood, further research will be conducted during the period of the 2020-21 to 2024-25 Access and Participation Plan. Such research is likely to include examination of application course, or course type, since internal research has identified that both entry rate and undergraduate applicants' characteristics vary between course.

<sup>&</sup>lt;sup>1</sup> Access and Participation Plan 2020-21 to 2024-25



Academic Division Cambridge Admissions Office

Characteristic	Groups currently less likely to be admitted (compared to all UK-domiciled applicants)	2018 entry rate gap for group	How the entry rate gap has changed in recent years (2012 to 2018)	Potential explanation for these entry rate gaps and changes
POLAR4 quintile	POLAR4 quintile 1 (Q1)	- 5.5%	Gap has narrowed considerably in the two most recent entry years (2017/2018) compared to between 2013 and 2016	Differences in A Level attainment explain some of the gaps, in particular for POLAR4 Q1/Q2 applicants (less to)
	POLAR4 quintile 2 (Q2)	- 4.3%		Q3/Q4 applicants).  The offer rates for applicants from POLAR4 Q1 and Q2 have increased relative to the overall offer rate, although post-offer attrition has subsequently also increased (for POLAR4 Q1 applicants especially). This increase in offer rate is likely to be driving some of entry rate gap narrowing for POLAR4 Q1/Q2 applicants (and not for POLAR4 Q3/Q4 applicants).
	POLAR4 quintile 3 (Q3)	- 4.1%	Gap has remained similar	
	POLAR4 quintile 4 (Q4)	- 1.6%		
English IMD quintile English-domiciled applicants only	IMD quintile 1 (Q1)	- 8.6%		
	IMD quintile 2 (Q2)	- 1.9%		although in the last two years the offer rate gap for IMD Q1 applicants has decreased, which is likely to be driving the recent entry rate gap
	IMD quintile 3 (Q3)	- 1.6%	Gap has remained similar	Offer rate has also increased for IMD Q2 applicants (to a greater extent than for IMD Q1 applicants) which is again likely to be driving some of the entry rate gap narrowing for this group.
Ethnicity	Asian	- 3.6%	Gap has remained similar overall (narrowed between 2014 and 2016 but since widened again)	Differences in A Level attainment may explain some of the gap for black applicants (though small group sizes make this hard to evaluate), but the gap for Asian applicants is not currently well understood.  Asian and black applicants have a lower offer rate than the other ethnicity groups, which is likely to be driving some of the entry rate gaps seen.
	Black	- 9.7%	Gap may have narrowed in the two most recent entry years (2017/2018) small group sizes make this hard to evaluate	
	'Minority ethnic'	- 1.1%	Gap has remained similar	
Age	21 years and over	- 7.3%	Gap has narrowed over the seven year period	Differences in A Level attainment reduce the entry rate gap for the mature applicants that attained the typical A Level offer, but for the rest of these applicants the gap is not well understood.  Post-offer attrition is reducing for mature applicants. However offer rate has not increased, which is likely to be driving some of the entry rate gap.



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Characteristic	Groups currently less likely to be admitted (compared to all UKdomiciled applicants)	2018 entry rate gap for group	How the entry rate gap has changed in recent years (2012 to 2018)	Potential explanation for these entry rate gaps and changes		
Disability	Disability declared	- 3.3%	Gap has remained similar	Differences in A Level attainment explain much of the current gap.  Applicants that have not declared a disability have a higher offer rate than those that have, which is likely to be driving some of the entry rate gap. The degree of post-offer attrition is similar for both groups.		
Care Leaver	Very small group sizes (typically <40 applicants and <10 entrants per year) mean that it was not appropriate to calculate entry rate gaps					
Gender	Males	- 1.5%	Gap has remained similar	This gap is currently not well understood, and when A Level attainment is accounted for the gap widens.  Female applicants have a higher offer rate than males which is likely to drive some of the entry rate gap, although females also have higher post-offer attrition.		
Interaction of gender and POLAR4	Male and POLAR4 quintiles 1 or 2 (Q1/2)	- 6.6%	Gap has remained similar	The recent relative increase in POLAR4 Q1/2 entry rate has predominantly been driven by an increase for female applicants from POLAR4 Q1/2. This is likely to reflect the increase in offers made to this		
	Female and POLAR4 quintiles 1 or 2 (Q1/2)	- 2.5%	Gap has narrowed considerably in the two most recent entry years (2017/2018)  The gap for male applicants from POLAR4 Q1/2 is not fully understood A gap remains when A Level attainment is accounted for. The off rate gap has reduced for male POLAR4 Q1/2 applicants, but not to the same extent as for female applicants from POLAR4 Q1/Q2,			
	Male and POLAR4 quintiles 3, 4 or 5 (Q3/4/5)	- 0.6%		POLAR4 Q1/2 applicants, but not to the same extent as for female applicants from POLAR4 Q1/Q2, which is likely why a larger entry rate		
Interaction of ethnicity and English IMD quintile English-domiciled applicants only	Asian and IMD quintiles 1 or 2 (Q1/2)	- 9.7%	There is considerable between-year fluctuation in entry rate for all these groups (likely as a consequence of small group sizes) and therefore evaluating how entry rate has changed over recent years is not easy. However with the exception of the Asian applicants from IMD Q3/4/5, all these groups have consistently had lower entry rates than overall in the last seven years	Differences in A Level attainment explain the gap for most groups to some extent, but the gap for Asian applicants from IMD Q1/2 is not currently well understood.  Offer rate has increased for black and white applicants from IMD Q1/Q2, but not for Asian applicants from IMD Q1/2. The persistent offer rate gap for Asian applicants from IMD Q1/2 is likely to be driving some of the entry rate gap for this group, but it is unclear why this is occurring.		
	Asian and IMD quintiles 3, 4 or 5 (Q3/4/5)	- 0.5%				
	Black and IMD quintiles 1 or 2 (Q1/2)	- 9.1%				
	Black and IMD quintiles 3, 4 or 5 (Q3/4/5)	- 11.2%				
	'Minority ethnic' and IMD quintiles 1 or 2 (Q1/2)	- 7.1%				



#### Introduction

It is known that, for some characteristics, there are differences in the proportion of entrants that the University of Cambridge admits from different groups. This could be due to:

- population differences we know that for some characteristics, such as ethnicity, different groups make up different proportions of the United Kingdom (UK) population;
- differences in the application rate of different groups for example Participation of Local Area (POLAR) quintiles represent differences in the proportion of students from different areas progressing to Higher Education;
- differences in course choice applicants' likelihood of entry varies between course;
- differences in attainment outcomes for different groups the University of Cambridge has high academic requirements for entry;
- differences in the University's admissions process or its outcomes for different groups;
- a combination of the above.

Understanding the source of such within-characteristic differences in the proportion of entrants is important in order to develop effective strategies to reduce these differences. The University of Cambridge have therefore conducted a self-assessment of their current admissions position (as of the 2018 entry year) and how this has changed in recent years.

This self-assessment sought to:

- identify characteristics that have within-characteristic differences in the proportion of UKdomiciled entrants to the University of Cambridge;
- explore whether these reflect differences in application, attainment and/or the admissions process.

Some findings of the self-assessment, in particular an examination of differences in the proportion of students admitted from different groups, are presented in Section 1 of the 2020-21 to 2024-25 Access and Participation Plan.<sup>2</sup> This paper focuses on the additional work conducted that was not presented in the Plan.

## **Background**

As Figure A shows, the process of being admitted to the University of Cambridge can be divided into two phases: the application process and the admissions process. Whilst differences in both phases can impact on which students enter the collegiate University, this paper predominantly focuses on the undergraduate admissions process – that is offers made, and applicants' attaining and/or accepting these offers.

Figure A – The typical pathway for entry to an undergraduate course at the University of Cambridge



<sup>&</sup>lt;sup>2</sup> Access and Participation Plan 2020-21 to 2024-25 https://www.undergraduate.study.cam.ac.uk/files/publications/university\_of\_cambridge\_app\_2020\_25.pdf



In order to distinguish between differences in the application process and differences in the admissions process, the majority of analyses reported in this paper use 'entry rate' to compare within-characteristic groups and identify whether there are differences between them. Entry rate is calculated by dividing the number of entrants from a particular group (e.g. males, or those from POLAR4 quintile 1 areas) by the number of applicants from that same group to generate a percentage. This percentage, the entry rate, describes the proportion of applicants from that particular group that went on to be admitted to the collegiate University. Examining the admissions process in this way ensures that variations in application rate (and thus subsequent variation in entrant group sizes that might well be expected) are accounted for. Entry rates for specific groups can be compared to the 'overall' or 'total' entry rate for all applicants in order to identify whether there are entry rate gaps - that is specific groups of applicants being more or less likely to be admitted than would be expected for the overall applicant population. This paper focuses on the 'negative' entry rate gaps where groups of applicants are less likely to be admitted than the overall applicant population (although, by definition, where group(s) of applicants have an entry rate gap where they are less likely to be admitted then the overall population, other group(s) of applicants must also have 'positive' entry rate gaps, where they are more likely to be admitted).

Entry rate provides an overview of how the admissions process compares for different groups; however when seeking to understand entry rate gaps further it is helpful to examine this process in more detail. Figure B illustrates how, by comparing differences between offer rates (calculated using the same methods as entry rates, but instead describing the percentage of applicants made an offer) and entry rates, it is possible to explore at what stage of the admissions process the entry rate gaps seen might be occurring. For example if the offer rate and entry rate gaps for a group are similar this suggests that the gap is likely to reflect differences in applicants' likelihood of receiving an offer, whereas if the offer rate gap is narrower than the entry rate gap this suggests that a greater degree of post-offer attrition is occurring for this group than overall (either due to applicants not accepting an offer, or not being accepted at confirmation due to not meeting the requirements of their offer).

Figure B – Examining differences in the typical admissions process for applicants to an undergraduate course at the University of Cambridge



### **Methods**

#### Applicant population used

All UK-domiciled applicants to the University of Cambridge who applied to enter an undergraduate course (applicants for the Graduate Course in Medicine were excluded) between 2012 and 2018, inclusive. Analyses in this paper are presented by entry year for comparability with the reporting format commonly used by the Office for Students.

#### Characteristics examined

The following characteristics are examined in this paper:

- Participation of Local Areas 4 (POLAR4) quintile;
- English Indices of Multiple Deprivation (IMD) quintile;
- ethnicity;



Cambridge Admissions Office

- age;
- disability;
- Care Leavers (compared to those who have not spent time in Care);
- gender;
- the interaction of gender and POLAR4;
- · the interaction of ethnicity and English IMD quintile.

#### Analyses conducted

For each characteristic the following questions have been addressed.

Are there differences between the entry rates for specific groups when compared to the overall population (usually all UK-domiciled applicants to the University of Cambridge) and if so how large are these entry rate gaps, and are they narrowing/widening over time?

2 by 2  $X_2$  tests were used to examine whether the number of applicants from specific within-characteristic groups that were admitted/not admitted to the collegiate University in 2018 differs significantly from the proportions of applicants that would be expected to be admitted/not admitted, in each case based on the within-characteristic group with the highest entry rate. These  $X_2$  tests presume a null hypothesis that there is no association between the within-characteristic groups in question and whether applicants were admitted to the collegiate University, and then examine whether any association seen is statistically significant. Since the  $X_2$  tests examine the association between within-characteristic groups and whether applicants were admitted to the collegiate University, where this association is statistically significant it can be interpreted as indicating that there is a significant difference in entry rate between the two groups. Unless stated otherwise, in this paper statistical significance is defined as a p value of <0.05 (i.e. at the 0.05 level).

#### At what stage of the admissions process are these entry rate gaps likely to be occurring?

This exploration has been conducted in two ways.

1) Accounting for attainment

By examining whether 'negative' entry rate gaps for specific groups remain when only academically competitive applications are considered (for these analyses applicants were considered to be academically competitive if they had attained the current typical A Level offer for their application course or higher).<sup>3</sup> These analyses were only conducted for applicants taking A Levels which is a limitation; however A Levels are by far the most common qualification type for UK-domiciled undergraduate applicants to the University, so for most characteristics this is likely to provide a reasonable indication of whether entry rate gaps are reflecting differences in attainment.

2) Comparing entry rate and offer rate gaps
As described in the background of this paper, by examining how differences between entry rates compare to differences between offer rates it is possible to explore at what stage of the admissions process the entry rate gaps seen might be occurring.

It is worth noting that differences in attainment could explain and/or directly result in differences in offer rates and post-offer attrition; these are by no means mutually exclusive explanations.

<sup>&</sup>lt;sup>3</sup> Since for some courses the typical A Level offer has changed over recent UCAS cycles 'typical A Level offer' for a course is here defined as attaining the standard A Level offer (or higher) for that course in the current (2019) UCAS cycle: A\*A\*A for Economics and all Science courses except for Psychological and Behavioural Sciences (PBS) and Veterinary Medicine, and A\*A\*A for all Arts/Humanities/Social Sciences courses (except Economics) as well as PBS and Veterinary Medicine.



#### Results

## POLAR4 quintile

For the purposes of this self-assessment of the University of Cambridge's admissions position by applicants' POLAR4 quintile area, applicants were grouped into five groups (corresponding to each quintile). For applicants for whom an earlier iteration of POLAR was in use at their point of application, POLAR4 quintile was determined based on their home postcode at the time of application.

In recent years the University of Cambridge has consistently had a lower proportion of UK-domiciled entrants from lower POLAR4 quintile areas than from POLAR4 Q5 areas,<sup>4</sup> and whilst the University also has fewer applicants from lower POLAR4 quintile areas,<sup>5</sup> accounting for the size of the application pool (by examining the entry rate for each POLAR4 quintile) does not fully explain these differences (*Figure 1a*). However whilst, for the last seven years, the entry rate for UK-domiciled applicants to the University of Cambridge from POLAR4 Q1 to Q4 areas has consistently been lower than the overall entry rate for UK-domiciled applicants (*the grey dashed line*), the extent of this variation has narrowed considerably in the last two entry years (2017 and 2018), in particular for applicants from POLAR4 Q1 and Q2 areas. Nonetheless 'negative' entry rate gaps currently remain: in 2018 the gap for applicants from POLAR4 Q1 areas was 5.5%, 4.3% for applicants from POLAR4 Q2 areas, 4.1% for applicants from POLAR4 Q3 areas, and 1.6% for applicants from POLAR4 Q4 areas. Furthermore, when the 2018 entry rate for applicants from POLAR4 Q5 areas (the group with the highest entry rate) was statistically compared with the 2018 entry rate for applicants from each other POLAR4 quintile in turn, these differences were all significant at the 0.01 level.

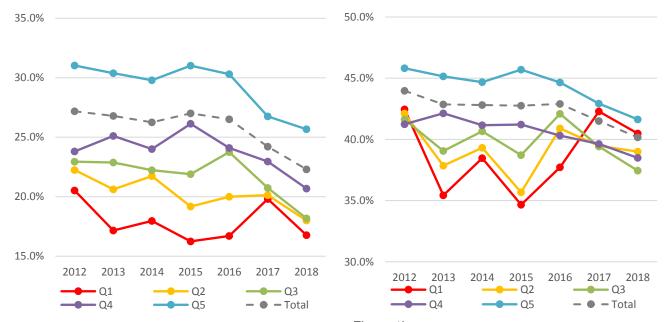


Figure 1a
The entry rate for UK-domiciled applicants to the
University of Cambridge from each POLAR4
quintile area (and overall), by entry year

Figure 1b
The entry rate for A Level-taking English-domiciled applicants to the University of Cambridge from each POLAR4 quintile area that met the typical A Level offer, by entry year

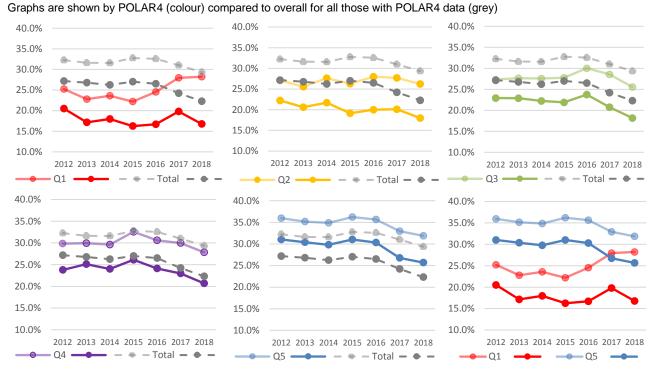
<sup>&</sup>lt;sup>4</sup> Access and Participation Plan 2020-21 to 2024-25 https://www.undergraduate.study.cam.ac.uk/files/publications/university\_of\_cambridge\_app\_2020\_25.pdf

<sup>&</sup>lt;sup>5</sup> University of Cambridge Undergraduate Study website, Undergraduate Admissions Statistics documents https://www.undergraduate.study.cam.ac.uk/apply/statistics

Once both the size of the applicant pool and A Level attainment (for applicants taking A Levels) are taken into account (*Figure 1b*), the entry rate gaps for applicants from all POLAR4 quintile areas narrow considerably (although there is considerable between-year fluctuation for applicants from the lowest two POLAR4 quintile areas, which are the smallest size groups). In 2018 the entry rate gap for academically competitive applicants taking A Levels was widest for applicants from POLAR4 Q3 areas (2.7% lower than overall), whilst in the two most recent entry years the entry rate for academically competitive A Level-taking applicants from POLAR4 Q1 areas has been higher than the overall entry rate for all academically competitive UK-domiciled applicants taking A Levels. When accounting for A Level attainment in the statistical comparisons of the 2018 entry rate differences (between applicants from POLAR4 Q5 areas and applicants from each of the other quintile groups) the difference was only statistically significant for applicants from POLAR4 Q3 areas.

As is seen for entry rate, the offer rate for applicants from POLAR4 Q1, Q2 and Q3 areas (and to a small extent Q4 areas) has consistently been lower than the overall offer rate for all UK-domiciled applicants (Figure 1c). In recent years the offer rate gap for applicants from POLAR4 Q1 and Q2 areas has decreased; however in the most recent two years the offer rate gap for applicants from POLAR4 Q3 areas has by contrast increased slightly. This could reflect the fact that in recent years applicants from POLAR4 Q1 and Q2 areas have been flagged during the application process whilst those from POLAR4 Q3 areas were not. As stated in the 2020-21 to 2024-25 Access and Participation Plan,<sup>6</sup> the University of Cambridge will continue to monitor the progress of applicants from POLAR4 Q3 and Q4 areas to ensure that progress towards the POLAR4 Q1 and Q2 admissions targets is not at their expense.

Figure 1c – Comparison of the entry rate (darker lines) and offer rate (lighter lines) for UK-domiciled applicants from different POLAR4 quintiles, by entry year



Over the last seven years, both for applicants from POLAR4 Q4 areas and those from POLAR4 Q5 areas, the patterns of offer rate have been broadly similar to the patterns of entry rate. The gap

<sup>&</sup>lt;sup>6</sup> Access and Participation Plan 2020-21 to 2024-25 <u>https://www.undergraduate.study.cam.ac.uk/files/publications/university\_of\_cambridge\_app\_2020\_25.pdf</u>



between offer rate and entry rate increases as POLAR4 quintile decreases – although it is especially wide for applicants from POLAR4 Q1 areas, and appears to have widened in recent entry years. This suggests that applicants from lower POLAR4 quintile areas who are made offers are less likely to attain the conditional requirements of the offer and/or less likely to accept their offer, and that this likelihood has decreased over recent years for applicants from POLAR Q1 areas in particular (and to a lesser extent for applicants from Q2 areas).

## Summary (POLAR4)

'Negative' entry rate gaps exist for applicants from all POLAR4 quintile areas except for Q5 (with the gap increasing for lower quintiles); it is likely that, in large part, this reflects differences in A Level attainment. However these entry gaps have narrowed recently, especially for applicants from POLAR4 Q1 and Q2 areas. This appears to be, at least in part, due to increases in the offer rates for applicants from POLAR4 Q1 and Q2 areas. However the gap between entry rate and offer rate is especially wide for applicants from POLAR4 Q1 areas, and has widened in recent entry years, suggesting that applicants from lower POLAR4 quintile areas who are made offers are less likely to attain the conditional requirements of the offer and/or less likely to accept their offer. However it appears that applicants from POLAR4 Q3 areas could be losing out relative to those from both lower and higher quintiles: they are the only POLAR4 quintile group for whom the entry rate gap remains significant even when A Level attainment is accounted for, and the group's offer rate gap has also started widening (after previous narrowing) in the last two years.

## **English IMD quintile**

For the purposes of this self-assessment of the University of Cambridge's admissions position by English IMD quintile area, applicants were grouped into five groups (corresponding to each quintile). These analyses were only conducted for English domiciled applicants whose home postcode had an English IMD decile assigned (converted to quintile for these analyses).

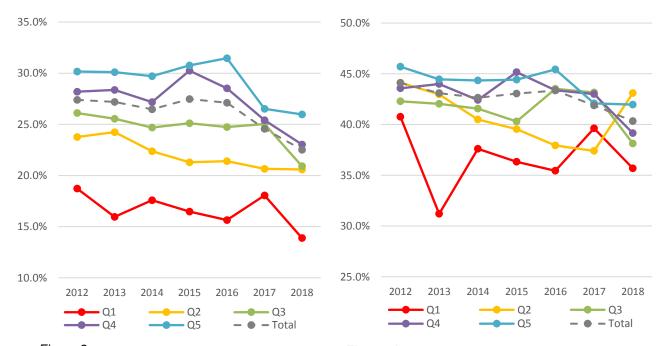


Figure 2a
The entry rate for UK-domiciled applicants to the
University of Cambridge from each IMD quintile
area (and overall), by entry year

Figure 2b
The entry rate for A Level-taking English-domiciled applicants to the University of Cambridge from each IMD quintile area that met the typical A Level offer, by entry year



In recent years the University of Cambridge has had a lower proportion of English-domiciled entrants from lower IMD quintile areas than from the highest IMD quintile areas,7 and whilst there are variations in the number of English-domiciled applicants to the University of Cambridge from each of the quintiles,8 even when the size of the applicant pool is taken into account (by examining the entry rate for each IMD quintile) entry rate gaps do exist – in particular for applicants from IMD Q1 areas (Figure 2a). In recent entry years the entry rate for English-domiciled applicants to the University of Cambridge from IMD Q1, IMD Q2 and IMD Q3 areas has consistently been lower than both the overall entry rate for English-domiciled applicants (the grey dashed line). However the entry rate gap for applicants from English-domiciled IMD Q1 areas has decreased to some extent in the last two entry years (2017 and 2018), as has the entry rate gap for applicants from IMD Q2 areas (which widened between 2014 and 2016). Nonetheless 'negative' entry rate gaps currently remain: in 2018 the gap for English-domiciled applicants from IMD Q1 areas was 8.6%, 1.9% for applicants from IMD Q2 areas, and 1.6% for applicants from IMD Q3 areas. Furthermore, when the 2018 entry rate for English-domiciled applicants from IMD Q5 areas (the group with the highest entry rate) was statistically compared with the 2018 entry rate for applicants from each of the other IMD quintiles in turn, these differences were all significant at the 0.01 level.

Once both the size of the applicant pool and A Level attainment (for applicants taking A Levels) are taken into account (*Figure 2b*), the entry rate gaps for applicants from the lowest two IMD quintiles narrow considerably (although there is large between-year fluctuation for applicants from IMD Q1 areas, probably reflecting the small size of this group). In 2018 the entry rate gap for academically competitive applicants taking A Levels remained widest for applicants from English-domiciled IMD Q1 areas but decreased to 4.6% (from 8.6%). In the most recent entry year (2018) the entry rate for academically competitive English-domiciled A Level-taking applicants from IMD Q2 areas was the highest of the five IMD quintiles: 2.8% higher than the overall entry rate for all academically competitive UK-domiciled applicants taking A Levels. However the high entry rate for applicants from IMD Q2 areas has only been seen for one year so far, so caution is needed when interpreting this finding. When accounting for A Level attainment in the statistical comparison of the 2018 entry rate differences (between applicants from IMD Q5 areas and applicants from each of the other IMD quintile groups) none of these differences remained significant in 2018.

As is seen for entry rate, in recent years the offer rate for English-domiciled applicants from IMD Q1 and IMD Q2 areas (and to a small extent IMD Q3 areas) has been lower than the overall offer rate for all English-domiciled applicants (*Figure 2c*). However in the last two years the offer rate gap for applicants from IMD Q1 and IMD Q2 areas has decreased – in particular for applicants from IMD Q2 areas, whose offer rate in 2018 virtually matched the overall offer rate.

The decrease in the offer rate gap for applicants from IMD Q1 and IMD Q2 areas is likely to have contributed to the decrease in the entry rate gap for these groups. However in most recent years the entry rate gap has been slightly wider than the offer rate gap for applicants from IMD Q1 areas (and to a much lesser extent for applicants from IMD Q2 areas) indicating that there is a degree of post-offer attrition for these applicants. However although post-offer attrition may contribute to the low entry rate for applicants from IMD Q1 areas, it appears to be secondary to this group's very low offer rate (when compared to that for all English-domiciled applicants).

<sup>&</sup>lt;sup>7</sup> Access and Participation Plan 2020-21 to 2024-25

https://www.undergraduate.study.cam.ac.uk/files/publications/university\_of\_cambridge\_app\_2020\_25.pdf

<sup>8</sup> University of Cambridge Undergraduate Study website, Undergraduate Admissions Statistics documents https://www.undergraduate.study.cam.ac.uk/apply/statistics



Figure 2c – Comparison of the entry rate (darker lines) and offer rate (lighter lines) for English-domiciled applicants from different IMD quintiles, by entry year

Graphs are shown by IMD quintile (colour) compared to overall for all those with IMD data (grey) 40.0% 40.0% 40.0% 35.0% 35.0% 35.0% 30.0% 30.0% 30.0% 25.0% 25.0% 25.0% 20.0% 20.0% 20.0% 15.0% 15.0% 15.0% 10.0% 10.0% 10.0% 2012 2013 2014 2015 2016 2017 2018 2012 2013 2014 2015 2016 2017 2018 2012 2013 2014 2015 2016 2017 2018 - Total Total Total — 40.0% 40.0% 40.0% 35.0% 35.0% 35.0% 30.0% 30.0% 30.0% 25.0% 25.0% 25.0% 20.0% 20.0% 20.0% 15.0% 15.0% 15.0% 10.0% 10.0%

## Summary (English IMD quintile)

2012 2013 2014 2015 2016 2017 2018

Total

Applicants from English-domiciled IMD Q1 areas in particular, but also those from IMD Q2 and IMD Q3 areas, to a lesser extent, have a 'negative' entry rate gap. This appears to be largely accounted for by attainment (when A Level attainment is taken into account the entry rate gap for applicants from IMD Q1 and IMD Q2 areas reduces considerably) although, even with attainment taken into account, an IMD entry rate gap still exists for applicants from IMD Q1 areas in particular. In the last two years the IMD entry rate gap has narrowed for applicants from IMD Q1 and IMD Q2 areas. This is likely to reflect that applicants from these areas have become (relatively) increasingly likely to be made an offer (although for applicants from IMD Q1 areas in particular the entry rate gap has not decreased by the same magnitude as the offer rate gap, suggesting there has also been a subsequent secondary increase in post-offer attrition).

2012 2013 2014 2015 2016 2017 2018

Total

05

2012 2013 2014 2015 2016 2017 2018

Q5

Q1

## **Ethnicity**

For the purposes of this self-assessment of the University of Cambridge's admissions position by ethnicity, applicants were grouped into four groups: Asian (including Chinese), black, white and 'minority ethnic' (which includes mixed and other).

In recent years the proportion of University of Cambridge entrants that are from black, Asian and minority ethnic (BAME) groups has increased,<sup>9</sup> but the University still has fewer BAME applicants than white applicants,<sup>10</sup> and accounting for the size of the application pool (by examining the entry rate for each ethnicity group) does not fully explain this difference (*Figure 3a*). Over the last seven years the entry rate for black UK-domiciled applicants has consistently been lower than both the overall entry rate for all UK-domiciled applicants with ethnicity data (*grey dashed line*) and the entry

<sup>&</sup>lt;sup>9</sup> Access and Participation Plan 2020-21 to 2024-25

https://www.undergraduate.study.cam.ac.uk/files/publications/university of cambridge app 2020 25.pdf

<sup>&</sup>lt;sup>10</sup> University of Cambridge Undergraduate Study website, Undergraduate Admissions Statistics documents https://www.undergraduate.study.cam.ac.uk/apply/statistics



rates for each of the other three ethnicity groups. Since 2017 the entry rate gap for black applicants appears to have narrowed to some extent, but since the size of this group is relatively small (and therefore between-year fluctuations will appear more pronounced than for other larger groups) it is hard to determine what is a trend and what is fluctuation. There has also consistently been a 'negative' entry rate gap for Asian UK-domiciled applicants, and although this gap decreased considerably between 2014 and 2016 it has more recently widened again. The gaps between the overall entry rate for UK-domiciled applicants and the entry rates for both the 'minority ethnic' and white groups are much narrower, although only the entry rate for UK-domiciled white applicants has consistently been greater than the overall entry rate.

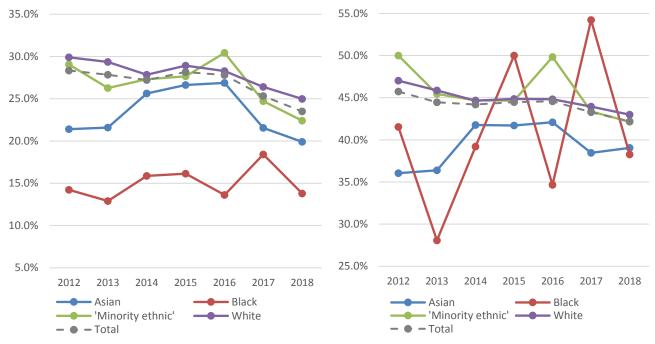


Figure 3a
The entry rate for UK-domiciled applicants to the
University of Cambridge from each of the four
ethnicity groups (and overall), by entry year

Figure 3b
The entry rate for A Level-taking UK domiciled applicants to the University of Cambridge from each of the four ethnicity groups that met the typical A Level offer, by entry year

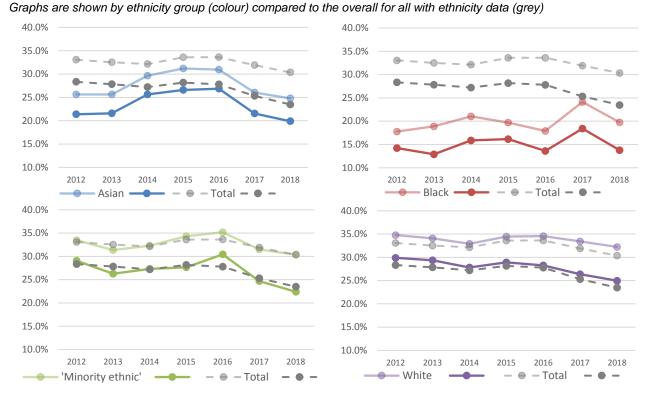
In 2018 the entry rate gap for UK-domiciled black applicants was 9.7%, 3.6% for UK-domiciled Asian applicants, and 1.1% for UK-domiciled 'minority ethnic' applicants. When the 2018 entry rate for white UK-domiciled applicants (the group with the highest entry rate) was compared with the 2018 entry rate for other applicants the differences between white and black applicants and between white and Asian applicants were both statistically significant at the 0.01 level, however there was no statistically significant difference between the 2018 entry rate for white and other 'minority ethnic' applicants.

Once both the size of the applicant pool and A Level attainment (for applicants taking A Levels) are taken into account (*Figure 3b*) the between-group differences in entry rate appear to narrow – although there is considerable between-year fluctuation for black applicants in particular, which means that the extent to which attainment explains the black entry rate gap is hard to ascertain, and that it is harder to draw robust conclusions about this group. When A Level attainment was taken into account in the statistical comparisons of the 2018 entry rate differences between white applicants (the group with the highest entry rate) and applicants from each of the other ethnicity groups, the difference only remained statistically significant for Asian applicants. It is notable that



the entry rate gap for Asian applicants has therefore not reduced considerably when accounting for A Level attainment – in 2018 it was 3.1% when accounting for attainment (compared to 3.6% when not).

Figure 3c – Comparison of the entry rate (darker lines) and offer rate (lighter lines) for UK-domiciled applicants from each of the four ethnicity groups described by the Office for Students, by entry year



As is seen for entry rate, in the last two years the offer rate for Asian and black UK-domiciled applicants has consistently been lower than the overall offer rate for all UK-domiciled applicants (*Figure 3c*). However in the last two years the offer rate gap for black applicants has decreased; whilst for Asian applicants the offer rate gap has increased (from a narrowing between 2014 and 2016). That is to say that that in the last two years black applicants may have become more likely to be made an offer, and Asian applicants may have become less likely (whilst the offer rate for UK-domiciled 'minority ethnic' applicants virtually matched the overall offer rate for all UK-domiciled applicants). Nonetheless, offer rates remain evidently much lower for black applicants, and to some extent for Asian applicants (compared to both overall and white applicants) and thus the betweengroup gaps in entry rates seen most likely reflect this.

## Summary (ethnicity)

A 'negative' entry rate gap exists for black and Asian applicants (and to some extent for applicants from the 'minority ethnic' group). This is more likely to reflect these applicants' likelihood of receiving an offer than their likelihood of attaining/accepting it. The largest ethnicity entry rate gap is for black applicants, although this appears to be narrowing recently. The current (2018) ethnicity entry rate gap for black applicants appears to narrow once A Level attainment is taken into account, although small group sizes and considerable between-year fluctuation limit the certainty of this finding. There is also a current ethnicity entry rate gap for Asian applicants, however this remains relatively unexplained (even when accounting for attainment and examining offer rate).



## <u>Age</u>

For the purposes of this self-assessment of the University of Cambridge's admissions position by age, applicants were grouped into two categories: those aged under 21 years in their term of entry, and those aged 21 years or over in their term of entry (who are referred to as 'mature' in this paper). As for the rest of this paper, the analyses reported only use data for applicants to undergraduate courses.

Over the last few years the proportion of UK-domiciled mature entrants to the University of Cambridge has consistently been much lower than the proportion of UK-domiciled entrants aged under 21 years. <sup>11</sup> The University's application statistics show that the University receives a relatively low number of applications from mature applicants; <sup>12</sup> however when the size of the applicant pool is taken into account by using entry rate as a measure (*Figure 4a*), there has consistently been a considerable gap between the entry rate for mature UK-domiciled applicants and the entry rate for all UK-domiciled applicants (*the grey dashed line*). Whilst in recent years this mature entry rate gap has narrowed (even when accounting for the small size of the mature group, which means that between-year fluctuations will appear more pronounced than for larger groups), it remains sizable. In 2018 the mature entry rate gap was 7.3%, and there is also a statistically significant difference when the entry rate for mature UK-domiciled applicants is compared to the entry rate for UK-domiciled applicants aged under 21 years (significant at the 0.01 level).



Figure 4a
The entry rate for UK-domiciled applicants to the
University of Cambridge of different ages, by entry year



Figure 4b
The entry rate for A Level-taking UK-domiciled applicants to the University of Cambridge of each age group that met the typical A Level offer, by entry year

In each of the last seven years an extremely small number of the mature applicants to the University have attained the typical A Level offer for their application course, which makes it hard to draw robust conclusions about the impact that adjusting for A Level attainment has on the mature entry rate gap. However, despite considerable between-year fluctuations, the entry rate for the few mature

Access and Participation Plan 2020-21 to 2024-25 https://www.undergraduate.study.cam.ac.uk/files/publications/university of cambridge app 2020 25.pdf

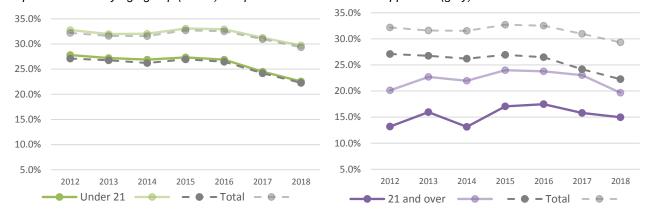
<sup>&</sup>lt;sup>12</sup> University of Cambridge Undergraduate Study website, Undergraduate Admissions Statistics documents <u>https://www.undergraduate.study.cam.ac.uk/apply/statistics</u>



applicants who did attain the typical A Level offer has been similar to, or higher than, that of other applicants (*Figure 4b*). Statistical comparison shows that the difference between the 2018 entry rates for mature and under 21 year old UK-domiciled applicants is not statistically significant once A Level attainment is taken into account.

Figure 4c – Comparison of the entry rate (darker lines) and offer rate (lighter lines) for UK-domiciled applicants to the University of Cambridge of different ages, by entry year

Graphs are shown by age group (colour) compared to the overall for all applicants (grey)



As is seen for entry rate, in recent years the offer rate for mature UK-domiciled applicants has also been lower than the overall offer rate for all UK-domiciled applicants (*Figure 4c*); that is mature applicants are less likely to have received an offer. However whilst the entry rate gap between mature applicants and all applicants has narrowed in the last few years, the corresponding offer rate gap has remained relatively constant. This suggests that whilst mature applicants may be becoming more likely to accept an offer from the collegiate University and/or to meet any conditional requirements of that offer, they have not become any more likely (relative to other applicants) to be made an offer.

#### Summary (age)

A 'negative' entry rate gap exists for mature applicants, which is likely to reflect these applicants' likelihood of receiving an offer more than their likelihood of attaining/accepting it. Whilst the size of the mature entry rate gap has narrowed over recent years, it remains considerable. Examining the impact of attainment on this gap is challenging, since both the likelihood that an applicant has attained three A Levels, and the likelihood that A Level-taking applicants attained the typical offer level, differ considerably for mature applicants compared to those under 21 years (just 5.3% of mature applicants in 2018 attained the typical A Level offer for their application course, compared to 47.2% of applicants under 21 years).

## **Disability**

For the purposes of this self-assessment of the University of Cambridge's admissions position by disability, applicants were grouped into two categories: those who declared a disability (of any type) in their UCAS application, and those who did not declare a disability.

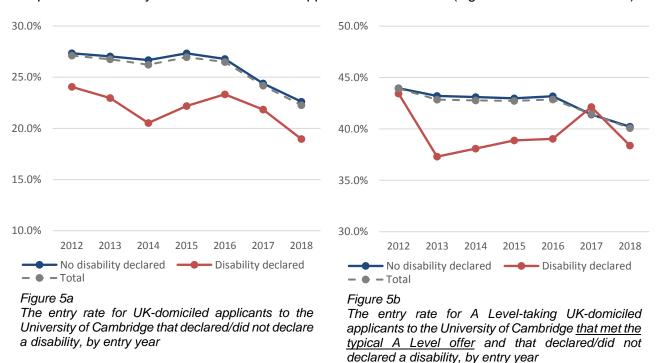
Despite an increase in the proportion of UK-domiciled students that had declared a disability entering the University of Cambridge in the last few years, the proportion of entrants that declared a disability has nonetheless consistently been lower than the proportion of entrants that did not.<sup>13</sup> Whilst the

https://www.undergraduate.study.cam.ac.uk/files/publications/university of cambridge app 2020 25.pdf

<sup>&</sup>lt;sup>13</sup> Access and Participation Plan 2020-21 to 2024-25



University also receives fewer applications from students that have declared a disability than those that have not,<sup>14</sup> when entry rate is used as a measure (thus taking the differences in the size of the applicant pool into account, *Figure 5a*) a gap is seen between the entry rate for UK-domiciled applicants that declared a disability and the overall entry rate for all UK-domiciled applicants (*the grey dashed line*). Although the size of the disability entry rate gap in 2018 was similar to the size of the gap for many of the last seven years, this gap was wider between 2013 and 2015. It is unclear if this was a change in trend or a result of between-year fluctuations (the group of applicants that declared a disability is small, and thus these fluctuations will appear more pronounced than for larger groups). In 2018 the disability entry rate gap was 3.3%; there was also a statistically significant difference when the entry rate for UK-domiciled applicants who had declared a disability was compared to the entry rate for UK-domiciled applicants who had not (significant at the 0.01 level).



Once both the size of the applicant pool and A Level attainment (for applicants taking A Levels) are taken into account (*Figure 5b*) the entry rate gap for UK-domiciled applicants that declared a disability has narrowed considerably in the last two entry years (2017 and 2018). This suggests that the current lower entry rate for UK-domiciled applicants that have declared a disability may reflect a lower proportion of the A level-taking applicants in this group having made an academically competitive application. With A Level attainment taken into account, the 2018 entry rate gap (between UK-domiciled applicants who declared a disability and UK-domiciled applicants) reduced to 1.7%, whilst the difference between the 2018 entry rate for UK-domiciled applicants who declared a disability and the 2018 entry rate for UK-domiciled applicants who did not is not statistically significant. However between 2013 and 2016 a sizeable entry rate gap remained for UK-domiciled applicants that had declared a disability, even when A Level attainment was accounted for. It will therefore be important to continue to monitor the disability entry rate gap, both overall and for academically competitive applicants, to determine whether these differences represent a changing pattern of admissions or between-year fluctuations due to relatively small group sizes.

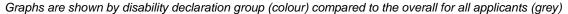
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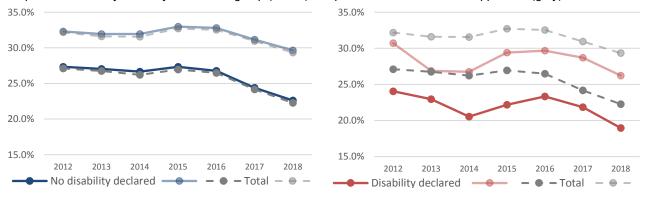
<sup>&</sup>lt;sup>14</sup> University of Cambridge Undergraduate Study website, Undergraduate Admissions Statistics documents https://www.undergraduate.study.cam.ac.uk/apply/statistics



As is seen for entry rate, in recent years the offer rate for UK-domiciled applicants who had declared a disability has been lower than the overall offer rate for all UK-domiciled applicants (*Figure 5c*); that is applicants who have declared a disability are less likely to have received an offer. This may be related to the differences in the likelihood that applicants from each group (those who declared a disability and those who did not) made an academically competitive application. However, since widening considerably between 2012 and 2013, over the last four years the size of the offer rate gap for UK-domiciled applicants who declared a disability has decreased.

Figure 5c – Comparison of the entry rate (darker lines) and offer rate (lighter lines) for UK-domiciled applicants to the University of Cambridge who declared/did not declare a disability, by entry year





For both UK-domiciled applicants that declared a disability and UK-domiciled applicants that did not, the current gap between each group's entry rate and the overall entry rate is a similar size to the gap between that group's offer rate and the overall offer rate. It therefore does not appear that post-offer attrition is more common for applicants who have declared a disability than for those who have not.

#### Summary (disability)

A 'negative' entry rate gap exists for applicants who declared a disability, which is likely to reflect these applicants' likelihood of receiving an offer more than their likelihood of attaining/accepting it. The size of the current disability entry rate gap is similar to the size that it was seven years ago (though smaller than it was for some of the years in between). The current disability entry rate gap narrows once A Level attainment is taken into account (though attainment did not fully explain the wider entry rate gap seen around 2013 to 2015).

#### Care Leavers

For the purposes of this self-assessment of the University of Cambridge's admissions position by In Care declaration, applicants were grouped into two categories: those who declared in their UCAS application that they had spent time in Local Authority Care (referred to as 'Care Leavers' in this paper), and those who did not declare that they had spent time in Care.

The proportion of UK-domiciled University of Cambridge entrants that have declared themselves to be Care Leavers has consistently been much lower than the proportion of entrants that did not: over the last seven entry years the proportion of Care Leavers entering the University has ranged between 0.2% and 0.4% of the University's UK-domiciled entrant population. The very small number of UK-domiciled Care Leavers entering Higher Education means that even when the size of the applicant

<sup>15</sup> The proportion of UK-domiciled University of Cambridge entrants that have declared themselves to be Care Leavers over the last seven years has been as follows:

<sup>2012: 0.3%, 2013: 0.4%, 2014: 0.4%, 2015: 0.2%, 2016: 0.3%, 2017: 0.3%, 2018: 0.3%.</sup> 

pool is taken into account (by examining entry rate) it is hard to compare the entry rate for UK-domiciled Care Leavers to the overall entry rate for all UK-domiciled applicants (*Figure 6a*). The small number of UK-domiciled Care Leavers also makes determining whether the group's pattern of entry rate has changed over recent years very challenging, as the between-year fluctuations for the Care Leaver group are particularly large (over the last seven years the entry rate for Care Leavers has been lower, higher and very similar to the entry rate for those not in Care). Furthermore, the very small group sizes (eight Care Leavers were admitted to the collegiate University in 2018) limit the reliability of statistical significance testing. It is therefore very difficult to determine whether there is a current Care Leavers entry rate gap.

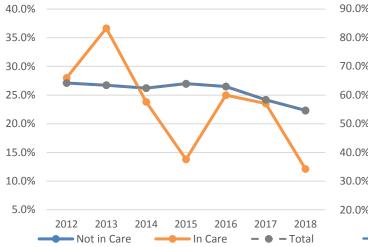


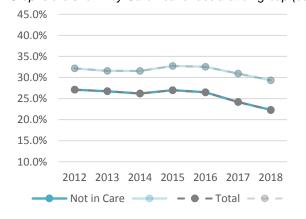


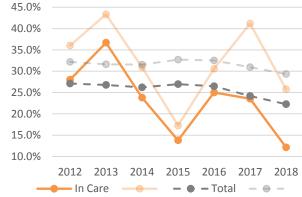
Figure 6a
The entry rate for UK-domiciled applicants to the
University of Cambridge that declared/did not declare
that they were Care Leavers, by entry year

Figure 6b
The entry rate for A Level-taking UK-domiciled applicants to the University of Cambridge that met the typical A Level offer and that declared/did not declare that they were a Care Leaver, by entry year

Once both the size of the applicant pool and A Level attainment (for applicants taking A Levels) are taken into account (*Figure 6b*) the entry rate for applicants that have declared they are Care Leavers has, in most recent years, been higher than (or in 2018 as high as) the entry rate for applicants who did not declare that they spent time in Care. This suggests that Care Leaver applicants who are academically competitive could be as likely, or potentially even more likely, to be made an offer than applicants who have not spent time in Care – although due to the very small Care Leaver group size these findings should be interpreted with extreme caution.

Figure 6c – Comparison of the entry rate (darker lines) and offer rate (lighter lines) for UK-domiciled applicants to the University of Cambridge who declared/did not that they were a Care Leaver, by entry year Graphs are shown by Care Leaver declaration group (colour) compared to the overall for all applicants (grey)







As is seen for entry rate, the offer rate for applicants that have declared they are Care Leavers has fluctuated during the last seven years (*Figure 6c*). Due to the small Care Leaver group size it is not possible to draw any firm conclusions about whether there are offer rate gaps for this group, nor at what stage of the admissions process any offer or entry rate gaps are likely to be occurring.

### Summary (Care Leavers)

The ability to robustly analyse entry rate gaps for applicants declaring themselves as Care Leavers is limited by the small number of these students that apply to the collegiate University, and the even smaller number that are offered a place or enter.

## Gender

For the purposes of this self-assessment of the University of Cambridge's admissions position by gender, applicants were grouped into two categories (male and female) based on the information they supplied in their UCAS application.

As the University of Cambridge application statistics show,<sup>16</sup> over the last seven years the proportions of both male and female UK-domiciled students entering the collegiate University have varied; however generally the proportion of females has been increasing whilst the proportion of males has decreased slightly. A greater proportion of the University's applicants are male than female,<sup>17</sup> therefore once the size of the applicant pool for each gender is taken into account by using entry rate (*Figure 7a*), there has consistently been a small 'negative' gap between the entry rate for male UK-domiciled applicants and the entry rate for all UK-domiciled applicants (*the grey dashed line*). The size of this gap has varied minimally in recent years. In 2018 the male entry rate gap was 1.5%, and there is also a statistically significant difference when the entry rate for male UK-domiciled applicants is compared to the entry rate for female UK-domiciled applicants (significant at the 0.01 level).

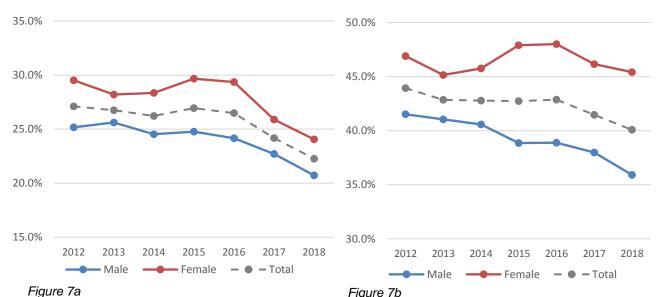


Figure 7a
The entry rate for UK-domiciled applicants to the University of Cambridge of each gender (and overall), by entry year

The entry rate for A Level-taking UK domiciled applicants to the University of Cambridge of each gender that met the typical A Level offer, by entry

<sup>16</sup> University of Cambridge Undergraduate Study website, Undergraduate Admissions Statistics documents <u>https://www.undergraduate.study.cam.ac.uk/apply/statistics</u>

year

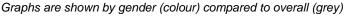
<sup>&</sup>lt;sup>17</sup> University of Cambridge Undergraduate Study website, Undergraduate Admissions Statistics documents https://www.undergraduate.study.cam.ac.uk/apply/statistics

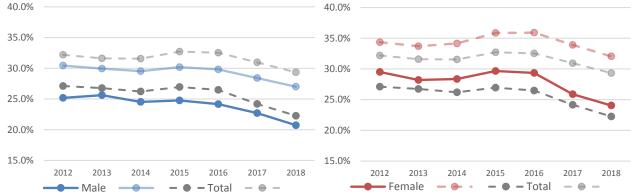


Once both the size of the applicant pool and A Level attainment (for applicants taking A Levels) are taken into account (*Figure 7b*) the entry rate gap for male UK-domiciled applicants widens; this has been particularly apparent for the last four entry years (since 2015). With A Level attainment accounted for the 2018 entry rate gap for male UK-domiciled applicants (when their entry rate is compared to the entry rate for all UK-domiciled applicants) increased to 4.2%, whilst statistical comparison of the 2018 entry rate for male and female applicants showed that this difference remained statistically significant at the 0.01 level. This suggests that the current lower entry rate for male UK-domiciled applicants does not reflect this group's likelihood of having made an academically competitive application.

As is seen for entry rate, for the last seven years the offer rate for male UK-domiciled applicants has been lower than the overall offer rate for all UK-domiciled applicants (*Figure 7c*); that is male applicants are less likely to have received an offer. The male offer rate gap has slightly widened over the last five years.

Figure 7c – Comparison of the entry rate (darker lines) and offer rate (lighter lines) for UK-domiciled applicants of each gender, by entry year





Over the last seven years the pattern of entry rate has been similar to the pattern of offer rate for male applicants, and the entry gap for males seems to largely reflect the offer gap for males. However whilst the entry and offer rates for female applicants also followed a similar pattern until 2016, in the last two entry years the entry rate for female applicants has decreased more sharply than the offer rate, indicating that female applicants made offers have become less likely to attain the conditional requirements of the offer and/or less likely to accept an offer.

#### Summary (gender)

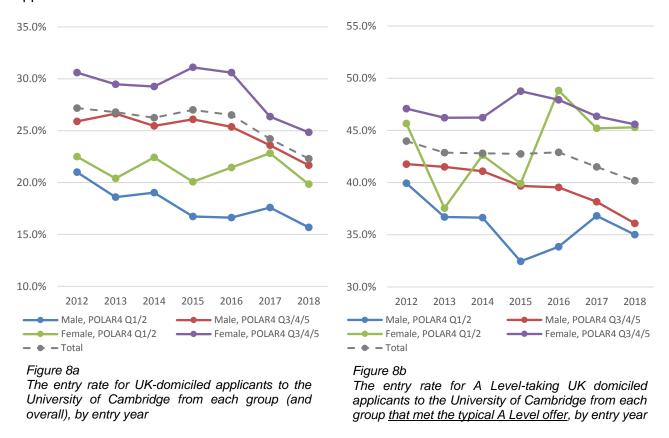
A 'negative' entry rate gap exists for male applicants, which is likely to reflect these applicants' likelihood of receiving an offer rather than their likelihood of attaining/accepting it. The male offer rate gap is not due to male applicants being less likely to make an academically competitive application.

## The interaction of gender and POLAR4

For the purposes of this self-assessment of the University of Cambridge's admissions position by the interaction of applicants' gender and POLAR4 quintile area, applicants were grouped into four groups. These groups were generated by combining the two gender categories (male and female) with two POLAR4 categories (those from POLAR4 Q1 or Q2 areas, and those from POLAR4 Q3, Q4 or Q5 areas). For applicants for whom an earlier iteration of POLAR was in use at their point of



application, POLAR4 quintile was determined based on their home postcode at the time of application.



In recent years the percentage of UK-domiciled students from each POLAR4/gender combination group entering the University of Cambridge has varied. Female entrants from POLAR4 Q1/2 areas have had the largest proportional increase, and appear to have accounted for more of the increase in the proportion of entrants from POLAR4 Q1/2 areas admitted to the University than male students from these areas have. When the size of the applicant pool is taken into account, by examining the entry rate for each group (*Figure 8a*), entry rate gaps exist - as they did when both gender and POLAR4 were considered independently.

Over the last seven years there has consistently been a small 'negative' gap between the entry rate for male UK-domiciled applicants from POLAR4 Q3, Q4 or Q5 areas and the entry rate for all UK-domiciled applicants (the grey dashed line), and larger 'negative' entry rate gaps between both male and female UK-domiciled applicants from POLAR4 Q1 or Q2 areas and all UK-domiciled applicants. Whilst the entry rate gaps for both groups of male applicants have remained similar over the seven years, the entry rate gap for female UK-domiciled applicants from POLAR4 Q1 or Q2 areas narrowed considerably in the two most recent entry years. In 2018 the entry rate gap (when compared to all UK-domiciled applicants) for male applicants from POLAR4 Q1 or Q2 areas was 6.6%, the gap for female applicants from POLAR4 Q1 or Q2 areas was 2.5%, and the gap for male applicants from POLAR4 Q3, Q4 or Q5 areas was 0.6%. When the 2018 entry rate for female UK-domiciled applicants from Q3/4/5 areas (the group with the highest entry rate) was statistically compared with the 2018 entry rate for applicants from each of the other three groups in turn these differences were all significant at the 0.01 level.

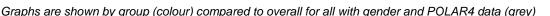
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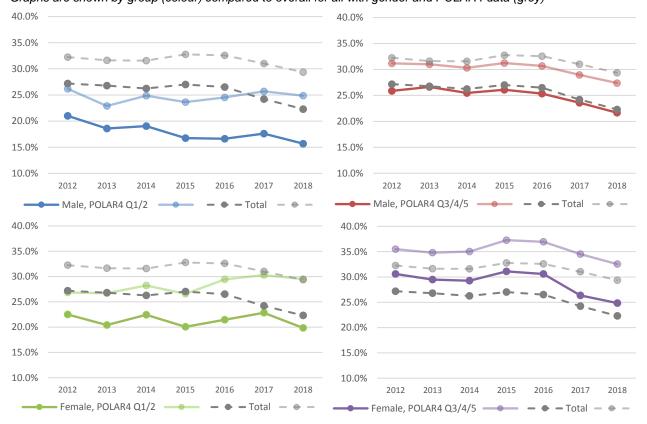
<sup>&</sup>lt;sup>18</sup> Access and Participation Plan 2020-21 to 2024-25 https://www.undergraduate.study.cam.ac.uk/files/publications/university\_of\_cambridge\_app\_2020\_25.pdf



Once both the size of the applicant pool and A Level attainment (for applicants taking A Levels) are taken into account (Figure 8b) gender is currently widening the entry rate gap to a greater extent than POLAR4: for both male and female academically competitive UK-domiciled applicants there was virtually no difference in the entry rate for those from POLAR4 Q1 or Q2 areas and those from POLAR4 Q3, Q4 or Q5 areas in 2017 or 2018. Over the last seven years the entry rate gap has consistently been widest for male A Level-taking UK-domiciled applicants from POLAR4 Q1 or Q2 areas. When A Level attainment is taken into account, the 2018 entry rate gap for female A Leveltaking applicants from POLAR4 Q1 or Q2 areas was actually 5.1% higher than the overall entry rate for academically competitive applicants (compared to 2.5% lower when A Level attainment was not accounted for), and when this group is compared with academically competitive female applicants from POLAR4 Q3, Q4 or Q5 areas (the group with the highest entry rate) there was no longer a statistically significant difference between these groups' 2018 entry rate. However the entry rate for academically competitive male A Level-taking applicants from POLAR4 Q1 or Q2 areas remained considerably lower than the overall entry rate (5.1% lower, compared to 6.6% when A Level attainment was not accounted for), and comparison of both groups of male applicants (those from POLAR4 Q1 or Q2 areas and those from POLAR4 Q3, Q4 or Q5 areas) with female applicants from POLAR4 Q3, Q4 or Q5 areas showed that in 2018 the entry rate differences between these groups remained statistically significant at the 0.01 level once A Level attainment was taken into account.

Figure 8c – Comparison of the entry rate (darker lines) and offer rate (lighter lines) for UK-domiciled applicants from each group, by entry year





As is seen for entry rate, over the last seven years the offer rate for male UK-domiciled applicants from both groups (those from POLAR4 Q1 or Q2 areas, and those from POLAR4 Q3, Q4 or Q5 areas), and female UK-domiciled applicants from POLAR4 Q1 or Q2 areas, has been lower than the overall offer rate for all UK-domiciled applicants (*Figure 8c*). However in the last three years the offer rate gap for both male and female applicants from POLAR4 Q1 or Q2 areas has narrowed – to the



extent that in 2018 the offer rate for the female group matched the overall offer rate. But whilst the offer rate for applicants from POLAR4 Q1 or Q2 areas is increasing, a considerable offer rate gap remains for male applicants from these areas (a gap that does not simply reflect gender: it is much wider than the equivalent gap for male applicants from POLAR4 Q3, Q4 or Q5 areas).

Over the last seven years the pattern of offer rate has been broadly similar to the pattern of entry rate for applicants from POLAR4 Q3, Q4 or Q5 areas, although since 2017 the entry rate for female applicants from these quintiles has decreased more sharply than the offer rate for these applicants, a change not observed for the male applicants from these quintiles. In recent years the gap between offer rate and entry rate has also widened for both male and female applicants from POLAR4 Q1 or Q2 areas. This suggests that, as is seen when POLAR4 is examined in isolation, applicants from these groups (and recently also female applicants from Q3/4/5) that are made offers have become less likely to attain the conditional requirements of their offer and/or less likely to accept it.

## Summary (interaction of gender and POLAR4)

When the interaction of gender and POLAR4 is examined the 'negative' entry rate gap for male applicants and applicants from POLAR4 Q1 or Q2 areas is exacerbated. The increase in the proportion of entrants from POLAR4 Q1 or Q2 areas in recent entry years has predominantly been driven by an increase in female entrants from these quintiles. When the interaction of POLAR4 and gender are considered a particularly wide entry rate gap is seen for male applicants from POLAR4 Q1 or Q2 areas, even when A Level attainment is taken into account. Whilst the offer rate for all applicants from POLAR4 Q1 or Q2 areas is increasing, a considerable offer rate gap remains for male applicants from these areas, despite a similar likelihood of post-offer attrition as female applicants from these areas, indicating that lower offer rates may primarily underlie their lower entry rates.

## The interaction of ethnicity and English IMD quintile

For the purposes of this self-assessment of the University of Cambridge's admissions position by the interaction of applicants' ethnicity and English IMD quintile area, applicants were grouped into eight groups. These groups were generated by combining four ethnicity categories (Asian, black, white and 'minority ethnic') with two IMD categories (those from IMD Q1 or Q2 areas, and those from IMD Q3, Q4 or Q5 areas). These analyses were only conducted for English domiciled applicants whose home postcode had an English IMD decile assigned (converted to quintile for these analyses).

In recent years the percentage of English-domiciled students from each ethnicity/IMD combination group entering the University of Cambridge has varied. The largest group has consistently been White students from IMD Q3, Q4 or Q5 areas, whilst black students from IMD Q1 or Q2 areas have had the largest proportional increase in the percentage of entrants over the last seven years (data not shown). When the size of the applicant pool is taken into account, by examining the entry rate for each group (*Figure 9a*), entry rate gaps exist for some groups, but not for others. For most of these groups there is considerable between-year fluctuation in entry rate (many of these groups are very small in size and therefore the expected between-year variation has a greater effect) and therefore it is important to exercise caution when quantifying entry rate gaps, since these can change considerably between years – although for most groups it appears the entry rate gap has been consistently either wide or minimal.



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Cambridge Admissions Office

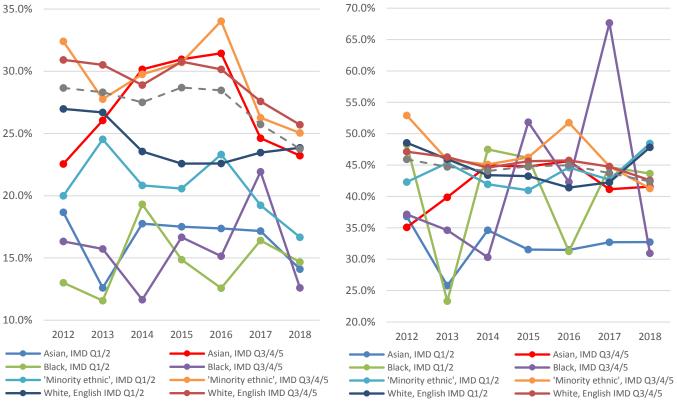


Figure 9a
The entry rate for English-domiciled applicants to the University of Cambridge from each group (and overall), by entry year

Figure 9b
The entry rate for A Level-taking UK domiciled applicants to the University of Cambridge from each group that met the typical A Level offer, by entry year

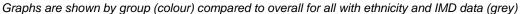
In 2018 the entry rate gaps for black applicants from IMD Q3, Q4 or Q5 areas (11.2% lower than overall), and black, Asian and other 'minority ethnic' applications from IMD Q1 or Q2 areas (9.1%, 9.7% and 7.1% lower than overall, respectively) were all considerable – and wider than either the ethnicity or the IMD quintile gaps seen when these characteristics were examined in isolation. Therefore for these groups there is an entry rate gap that is not explained by application rate alone. When the 2018 entry rate for white English-domiciled applicants from IMD Q3, Q4 or Q5 areas (the group with the highest entry rate) was statistically compared with the 2018 entry rate for English-domiciled applicants from each of the groups listed above (all black applicants, and Asian or 'minority ethnic' applicants from IMD Q1/2 areas) these differences were all significant at the 0.01 level. However for other groups very little entry rate discrepancy exists when application rate is accounted for, and when the 2018 entry rate for English-domiciled applicants from IMD Q3, Q4 or Q5 areas, none of these differences were statistically significant.

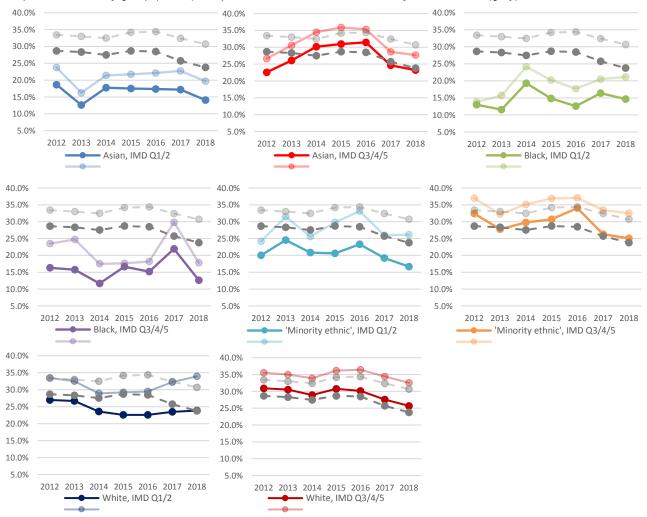
Once both the size of the applicant pool and A Level attainment (for applicants taking A Levels) are taken into account (*Figure 9b*) the entry rate gap seen for English-domiciled 'minority ethnic' applicants from IMD Q1 or Q2 areas is minimal suggesting that a lower proportion of applications from this group are academically competitive compared to some other groups. Statistical comparison of the 2018 entry rate for this group and that for English-domiciled white applicants from IMD Q3, Q4 or Q5 areas (the group with the highest entry rate) showed that there was no longer a statistically significant difference between these groups once A Level attainment was accounted for. However even when taking account of attainment, the entry rate gap for English-domiciled Asian applicants from IMD Q1 and Q2 areas remains wide (9.7% lower than the overall entry rate for academically



competitive English-domiciled applicants taking A Levels), and when compared to English-domiciled white applicants from IMD Q3, Q4 or Q5 areas, this difference is statistically significant at the 0.01 level. This suggests that factors other than attainment are generating the gap for English-domiciled Asian applicants from IMD Q1 or Q2 areas. It is hard to determine the effect of accounting for applicant rate and A Level attainment on the entry rate gap for black applicants from different IMD quintile areas since the number of black applicants and entrants each year that attained the typical A Level offer for their application course is low, and there is considerable between-year fluctuation in entry rate for the two black groups.

Figure 9c – Comparison of the entry rate (darker lines) and offer rate (lighter lines) for English-domiciled applicants from each group, by entry year





Over the last seven years the pattern of offer rate has been broadly similar to the pattern of entry rate for most groups of applicants (*Figure 9c*). In 2018 substantial offer rate gaps were evident for all four groups that had particularly low entry rates in 2018 – that is Asian and 'minority ethnic' applicants from IMD Q1 or Q2 areas, and black applicants from all areas. Over the last few years there has been an increase in offer rate for applicants from IMD Q1 or Q2 areas, and examination of the interaction between ethnicity and IMD demonstrates that this increase has predominantly been for white and black applicants – the offer rate gap for Asian applicants from these areas has not reduced to the same extent.



For many groups the gap between entry rate and offer rate has widened in the last few years – this change has been most noticeable for groups with applicants from IMD Q1 or Q2 areas, in particular white applicants from these areas. This is likely to reflect the effect seen when IMD is examined in isolation: the offer rate for applicants from IMD Q1 or Q2 areas has increased (relatively), but those applicants from these groups that are made offers may have become less likely to attain the conditional requirements of their offer and/or less likely to accept it than applicants from the higher IMD quintile areas.

## Summary (interaction of ethnicity and IMD)

When the interaction of ethnicity and IMD quintile is examined many of the between-group differences in the entrant proportions and/or 'negative' entry rate gaps can be explained, for example, the variation in the proportion of white entrants from different IMD quintiles reflects the low application rate of English-domiciled white individuals from IMD Q1 and Q2 areas. However the low proportion of entrants from other ethnicity groups is not wholly explained by differences in application rate. For Asian and 'minority ethnic' individuals, IMD quintile appears to contribute considerably to the extent of any entry rate gap (with larger and negative gaps for applicants from IMD Q1 or Q2 areas), whereas for black individuals the entry rate gap is large regardless of IMD quintile. The entry rate gap for English-domiciled 'minority ethnic' applicants from these areas narrows once A Level attainment is accounted for. However even when accounting for A Level attainment, the entry rate gap remains wide for English-domiciled Asian applicants from IMD Q1 and Q2 areas. A relative increase in offer rate for English-domiciled applicants from IMD Q1 or Q2 areas has already been noted in this paper; however this appears to reflect a recent increase in offer rate to white and black applicants in these groups more than Asian applicants.

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With thanks to Alexa Horner and Matt Wheatley