

# A FIXED EFFECTS APPROACH TO INVESTIGATING FIRM CHOICE ACCEPTANCE

# KEY POINTS

- ▶ This short analysis report examines the relationship between achieving below UCAS predicted grades and acceptance to firm choice courses. More than 8 in 10 applicants in the modelling sample had UCAS predicted grades that were higher than their achieved grades.
- ▶ As you would expect, as the gap between a student's UCAS predictions and achieved grades widens, their likelihood of being accepted to their firm choice decreases. For an applicant with average UCAS predicted grades (AAA) with a selected firm choice course, achieving three or more grades below their UCAS predictions (for example, BBB or below) is associated with a substantially higher chance of not being accepted to that course.
- ▶ For a given combination of UCAS predicted and achieved grades, the probability of firm choice acceptance differs across courses, indicating that some are more selective than others.
- ▶ Compared with applicants with the same firm course, UCAS predicted grades and achieved grades, disadvantaged applicants were more likely to be accepted to firm than their advantaged peers.

## Predicted-achieved gap

Throughout this report, for brevity, the term 'predicted-achieved gap' is used to describe the difference between UCAS predicted grades and achieved grades. Achieved grades that are further below UCAS predicted grades are described as having a larger 'predicted-achieved gap'.

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# INTRODUCTION

## Background

UCAS predicted grades, made by teachers and other advisers for applicants with pending qualifications, are a feature of the United Kingdom (UK) Higher Education (HE) admissions process. Their use in the admissions process, and the weight placed on them, varies across courses and institutions. This research explores the effect on students of achieving A level grades that are lower than their UCAS predictions. Specifically, it examines the relationship between acceptance to an applicant's firm choice course and the gap between UCAS predicted and achieved grades.

## Role of predicted grades in UK HE admissions

Most 18-year-old applicants from the UK apply to HE with UCAS predicted grades. These relate to 'pending qualifications' - those due to be awarded after the application is submitted - and are submitted by referees in applicants' schools.

UCAS predicted grades are used by universities and colleges to understand an applicant's potential. They are defined as "the grade of qualification an applicant's school or college believes they're likely to achieve in positive circumstances." They support a flexible admissions process allowing those with achieved qualifications to apply alongside those still studying.

UCAS predicted grades are only one piece of information a university or college may use. Other elements include qualifications achieved prior to application (for example, GCSE, AS Level, National 5 or Higher qualifications), performance at interview, provider or course specific admissions tests, background, personal statement, and reference<sup>1</sup>.

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1 The predicted grades described here differ from those collected prior to 2015 by examination boards.

# ANALYSIS

## Modelling sample

The 2023 cycle was chosen for analysis as the most recent complete admissions cycle at the point of analysis.

The modelling focused on 18-year-old applicants domiciled in England with three UCAS predicted A levels. This was chosen as the largest homogeneous group of applicants that can be described by a common set of examination and socio-economic characteristics. Findings may not generalise to other UK nations and other qualifications.

Additionally, applicants held a conditional firm choice at the 30 June deadline. This suggested confirmation of a place on the applicant's firm choice course was awaiting A level examination results.

We applied the following criteria to create a homogenous dataset for modelling:

- ▶ **Base population criteria:** 18-year-old applicants domiciled in England who applied via the UCAS main scheme<sup>2</sup> in 2023. Applicants were predicted at least three A levels at grades A\*-E and had not achieved A levels at application. Applicants subsequently took at least three A levels. Additionally, the applicant's firm offer was conditional on 30 June<sup>3</sup> and the applicant was not withdrawn on 30 June.
- ▶ **Model terms criteria:** No missing data for any variables used in modelling. Applicants applied through an academy, further education college, sixth form college, or grammar, independent or state school in England. These criteria removed around 1% of applicants from the base population.
- ▶ **Course acceptance criteria:** When all applicants are accepted (or all applicants are not accepted) on a given firm choice course, there is no variance in course acceptance across the applicants to explain. Hence applicants on such courses are necessarily excluded from models including a firm course fixed effect – and for comparability, they are excluded from all other analysis and models below also. Most removed at this stage had firm courses on which all applicants were accepted – and so consequently this reduces the firm acceptance rate in the modelling dataset compared with the base population.

There were 154,095 applicants in the base population. 86% of them (133,170 applicants) were used in analysis. The modelling dataset accounts for 47% of 18-year-old applicants from England in the 2023 admissions cycle.

## Dependent variable

The dependent variable was firm acceptance. 'Firm acceptance' indicates the applicant was placed at their firm choice institution and course.<sup>4</sup>

In the modelling population 61% of applicants were accepted to firm.

## Modelling approach

Logistic regression models were fitted using the fixest package (v0.11.1, Bergé, 2018) for R<sup>5</sup> with firm course cluster robust standard errors.

Variables were added sequentially to investigate the impact of additional statistical controls.

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2 "Main scheme" means applying with choice options up until 30 June after which applications go direct to Clearing.

3 Most 18-year-old applicants domiciled in England applying in the 2023 admissions cycle through the UCAS main scheme held a firm choice on 30 June. Nearly all - 96% - were 'conditional'. This means that certain conditions, usually qualification-related, needed to be satisfied to guarantee acceptance.

4 Includes applicants placed at their firm choice institution and course through the UCAS main scheme (including those that subsequently changed their mind and removed themselves from that course) or placed at their firm choice institution and course through Clearing.

5 All analyses were performed using R Statistical Software (v4.1.2; R Core Team, 2021)

Independent variables

Table 1 below describes the independent variables used in modelling.

Table 1: Independent variables used in modelling

Variable	Included in	Description
UCAS predicted grades	All model groups	Total points in best 3 predicted A levels. <sup>6</sup> Categorical; categories: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18.
Predicted-achieved gap	All model groups	The difference between UCAS predicted grades and Achieved grades, where Achieved grades is defined as total points in best 3 achieved A levels. For example, an applicant predicted AAA and achieving AAB would be 'Achieved 1 grade below'. Categorical; categories: Achieved pred. or above, Achieved 1 grade below, Achieved 2 grades below, Achieved 3 grades below, Achieved 4 grades below, Achieved 5+ grades below.
Firm course	All model groups	Identifies the applicant's firm choice institution and course. Included as a fixed effect.
Ethnic group	Model group 2 only	High level ethnic group as declared by the applicant. Categories: Asian, Black, Mixed, Other, Unknown, White.
POLAR4	Model group 3 only	Classifies small areas across the UK into five groups according to their level of participation in HE. Categories: Quintile 1 (lowest participation); Quintile 2; Quintile 3; Quintile 4; Quintile 5.

Independent variables were included as main effects only. No interaction terms were included.

Some models included firm course as a fixed effect. Use of fixed effects modelling allows comparison of applicants with the same firm choice course. It accounts for unobserved factors associated with firm choice course - for example, applicant demand for the course and provider recruitment strategy - that might affect firm acceptance. Table 2 below highlights the difference between models with and without a firm course fixed effect, with predicted-achieved gap as the variable of interest.

Table 2: Firm course fixed effect

Without a firm course fixed effect	With a firm course fixed effect
<p>Compares applicants with a different predicted-achieved gap <b>with a different firm choice course</b>.</p> <p>For example, applicants with a gap of two grades with a firm choice in Economics at Institution A with applicants with a gap of three grades with a firm choice in Sports Management at Institution B.</p>	<p>Compares applicants with a different predicted-achieved gap <b>with the same firm choice course</b>.</p> <p>For example, we are now comparing applicants with a gap of two grades with a firm choice in Economics at Institution A with applicants with a gap of three grades with a firm choice in Economics at Institution A. Similarly, we are now comparing applicants with two grade gap in Sports Management at Institution B with applicants with a three grade gap in Sports Management at Institution B.</p>

This approach is advantageous if, for example, applicants with a firm choice in Sports Management at Institution B are more likely to be accepted, all else equal. One possible reason for this could be differing recruitment strategies. If this were the case, a failure to control for firm course might result in a misleading estimate of the effect of the predicted-achieved gap.

Ethnic group and POLAR4 are included in model groups 2 and 3 respectively. This is because recent research by UCAS (2025) and by Leckie and Maragkou (2024) highlighted, among other findings, the greater predicted-achieved gap of Asian and Black ethnic groups, and students from areas of higher deprivation. Both research reports also found differences in the predicted-achieved gap by gender and school type – for example, applicants in sixth form colleges achieved closer to UCAS predicted grades. Gender and school type are not explored in the current analysis.

6 The following grade point conversions are used throughout: A\*=6, A=5, B=4, C=3, D=2, E=1. So, for example, a grade profile of A\*A\*A\* corresponds to 18 points.

# RESULTS

## Model group 1: Effect of the predicted-achieved gap on acceptance to firm

### Descriptive analysis

Table 3 below shows that most applicants in the modelling sample had UCAS predicted grades that were higher than their achieved grades. More than 8 in 10 had UCAS predicted grades above their achieved grades. However, many are still accepted to firm - especially those achieving closer to predictions. It also shows that a small proportion of those achieving predicted grades are not accepted to firm. This is likely due to not meeting conditions such as grades in specific subjects, or requirements beyond A level.

The table shows an average across all UCAS predicted grade profiles. However, students with the same gap but different UCAS predicted grades may experience different outcomes. Additionally, outcomes may differ between courses. In this research statistical modelling is used to isolate the effect of different predicted-achieved gaps on acceptance to firm.

**Table 3: Firm acceptance: relationship with predicted-achieved gap**

Predicted-achieved gap	Proportion accepted to firm	Proportion in category
Achieved pred. or above	96%	17%
Achieved 1 grade below	88%	15%
Achieved 2 grades below	74%	18%
Achieved 3 grades below	57%	17%
Achieved 4 grades below	40%	13%
Achieved 5+ grades below	19%	21%

### The models

- ▶ Model 1 (M1) includes only the predicted-achieved gap as an independent variable.
- ▶ Model 2 (M2) additionally includes statistical control for predicted grades.
- ▶ Model 3 (M3) compares applicants with the same firm choice course (as well as UCAS predicted grades), through the addition of a firm course fixed effect.

Table 4 below gives the pseudo  $R^2$  for each model.<sup>7</sup> There was a substantial increase in overall pseudo  $R^2$  with the addition of the firm course fixed effect in M3, illustrating the importance of firm choice course in predicting acceptance, alongside UCAS predicted grades and predicted-achieved gap. While the pseudo  $R^2$  is high for M3, this is unsurprising given the independent and dependent variables – we expect attainment to be a key driver of confirmation decisions within courses. However, unmodelled factors such as subject-specific attainment, grade profile (for example, AAA vs A\*AB), qualifications and experience beyond A level, and applicant background may also play a role in acceptance decisions.

**Table 4: Model group 1: pseudo  $R^2$**

Model	Overall pseudo $R^2$	Within pseudo $R^2$
M1	.271	n/a
M2	.298	n/a
M3	.672	.623

<sup>7</sup> The pseudo  $R^2$  are the McFadden  $R^2$ , generated by the  $R^2$  function in the *fixest* package. Within pseudo  $R^2$  are provided for models with a firm course fixed effect.

Average predictions by predicted-achieved gap

Figure 1 shows average predicted acceptance for each category of the predicted-achieved gap. It uses the avg\_predictions function from the marginalesffects package (v0.25.0, Arel-Bundock et al., 2024), with type = 'response'.<sup>8</sup> Henceforth, this is described as the 'average prediction' approach.

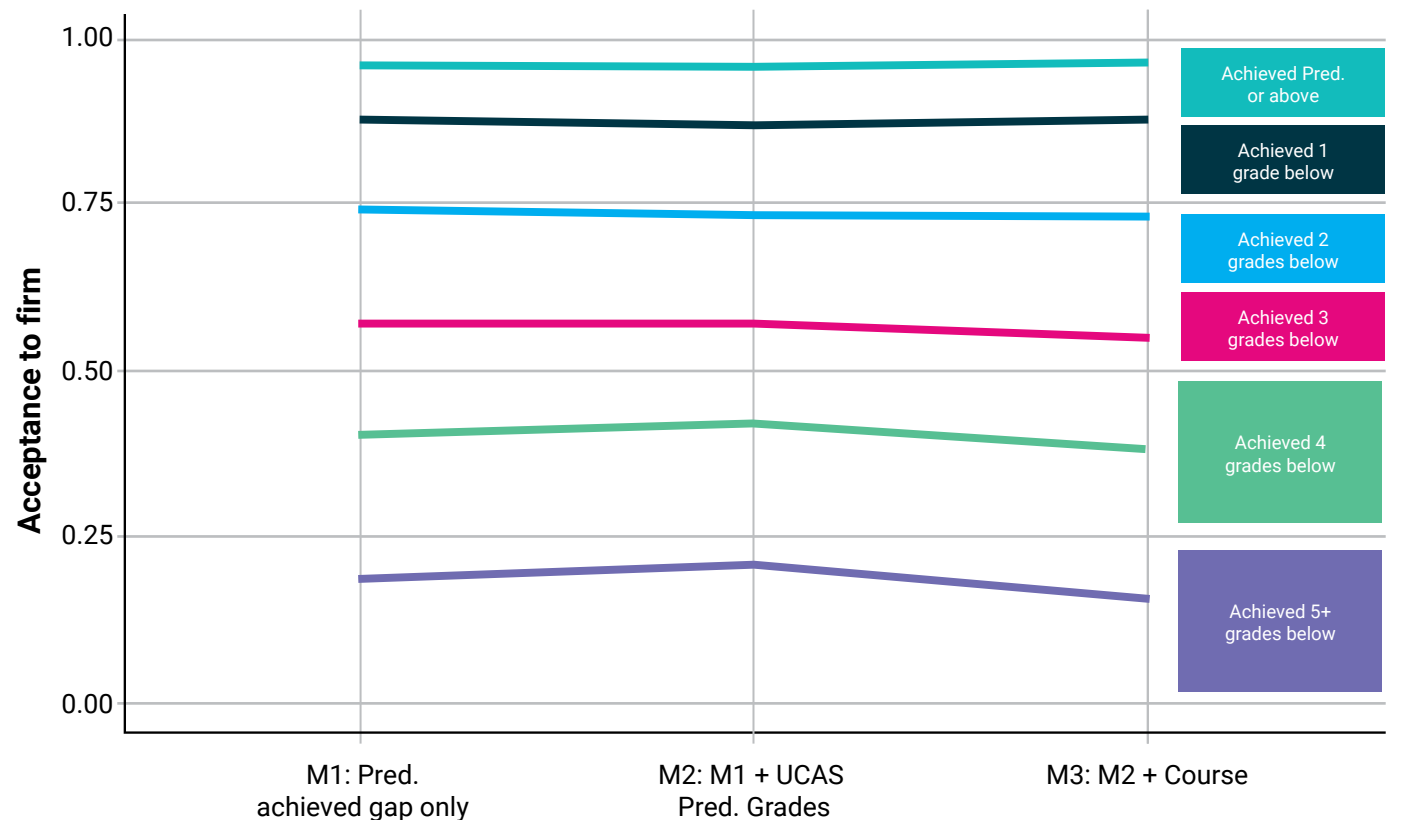


Figure 1: Average predicted firm acceptance by predicted-achieved gap

The average predictions in Figure 1 show little difference in the average effect of the predicted-achieved gap with additional statistical control for UCAS predicted grades (M2) and firm choice course (M3).

This approach is appropriate for comparing logistic regression models with different independent variables (Mood, 2010). However, due to the importance of firm course and UCAS predicted grade in the model these population-level summaries may not reflect an individual applicant’s probability of acceptance.<sup>9</sup> For this reason, we next produce predictions for an example applicant.

8 This creates a counterfactual dataset for each value of the variable of interest (here, predicted-achieved gap). Predicted probabilities are produced for each observation, then mean probabilities for each value. So, for example, for Model 3 (M3), the value of 0.73 for ‘Achieved 2 grades below’ is generated by first setting the gap to ‘Achieved 2 grades below’ for all students in the sample. It then calculates the predicted probability of being accepted for every student in the sample. Finally, it produces the mean across this distribution of probabilities, which is 0.73.

9 The wide spread of individual-level predicted probabilities is shown in **Appendix 1** to this report.

## Predictions for a specific applicant and course

Figure 2 shows two different methods of quantifying the effect of the predicted-achieved gap.

- M3: Average prediction uses the average prediction approach (and is the same as 'M3: M2 + course' from Figure 1)
- M3: Prediction at defined values shows the predicted acceptance for an applicant with UCAS predicted grades of AAA or equivalent points<sup>10</sup> at a selected course<sup>11</sup>. Henceforth, this is described as an 'average' applicant – although, due to the method of their selection, they should be considered only approximately average.

As Figure 2 illustrates, the average experience across the applicant population (the former) is not the same as the experience of the average applicant (approximated by the latter).

The Prediction at defined values approach shows a more pronounced effect of the predicted-achieved gap. In this example, there was a clear 'tipping point' between achieving two and three grades below UCAS predictions. Predicted acceptance fell to 37% at three grades below, and 9% at four grades below. The substantial fall in predicted acceptance beyond a specific attainment level is unsurprising. Universities and colleges may accept applicants achieving closest to offer conditions (including subject specific attainment conditions), should places exceed numbers of applicants meeting offer conditions. An academic 'cut-off' - which may vary between courses - is therefore expected, although this may also take into account unmodelled factors.

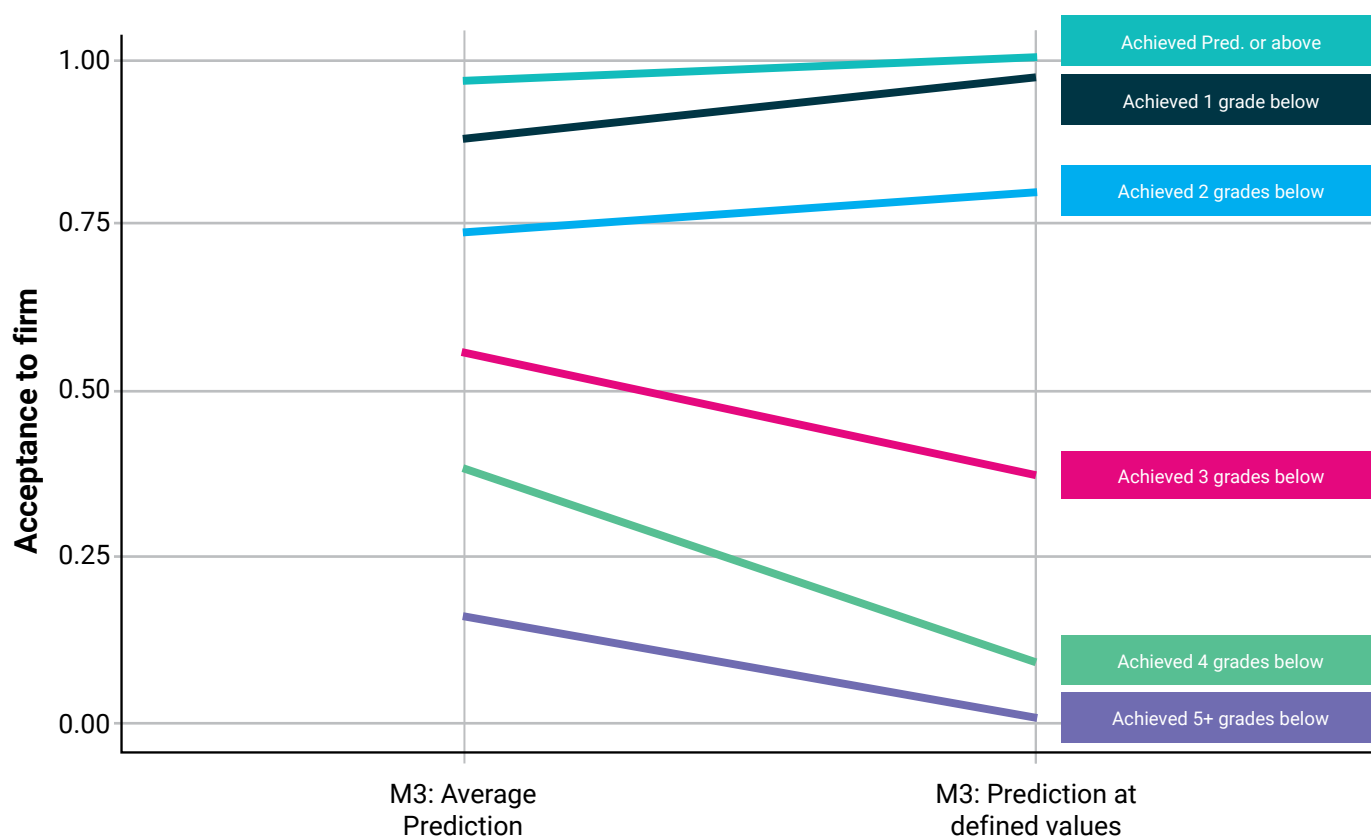


Figure 2: Model 3 – average prediction vs prediction at defined values

<sup>10</sup> 15 points was the median and mode predicted points in the modelling dataset. In this report 'AAA' and '15 points' are used interchangeably, since grade profile is not considered in the analysis. However, some applicants predicted 15 points have different predicted grade profiles (for example, A\*AB).

<sup>11</sup> The selected course is the firm choice course with the fixed effect closest to the density peak across the firm course fixed effects of all applicants predicted AAA or equivalent points (appended to the applicant level dataset, so effectively weighted by number of applicants). In other words, it is the course that most closely reflects the 'most common' experience of this group. Selecting a different course (for example, using the median – shown in the Annex of this report) returns different predictions.



### There are two key takeaways from Model 3

- ▶ Greater gap between UCAS predicted and achieved grades is associated with lower firm acceptance. Differences are particularly pronounced with a selected 'average' applicant and course.
- ▶ Course matters: Firm choice course is key - as evidenced by the increase in pseudo  $R^2$  when firm course is included in the model. So, while 'M3: Prediction at defined values' shown in Figure 2 approximates an average applicant with an average firm choice course, it should not be interpreted as the universal experience of those predicted AAA, or those with other UCAS predicted grades. In fact, outcomes for other applicants with the same predicted-achieved gap may vary substantially, as illustrated in this report's Appendix 2.

## Model group 2: Effect of ethnic group on acceptance to firm

On average, applicants from Asian and Black ethnic groups have a larger gap between UCAS predicted grades and the grades they later achieve than their White ethnic group peers. We investigated whether this explained their lower firm acceptance rates.

### Descriptive analysis

Table 5 below provides the firm acceptance rate for each ethnic group, and the proportion of the modelling sample in each ethnic group. There are substantial differences between ethnic groups. The White ethnic group had the highest acceptance rate (67%) and the Black ethnic group the lowest (46%). The largest groups were White (62% of the sample) and Asian (20%).

Table 5: Ethnic group: firm acceptance and category distribution

Ethnic group	Proportion accepted to firm	Proportion in category
Asian	51%	20%
Black	46%	7%
Mixed	61%	7%
Other	50%	3%
Unknown/Prefer not to say	63%	1%
White	67%	62%

### The models

- ▶  $M1_{\text{ethnic}}$  includes only ethnic group as an independent variable.
- ▶  $M2_{\text{ethnic}}$  additionally includes a firm course fixed effect.
- ▶  $M3_{\text{ethnic}}$  adds applicant UCAS predicted grades.
- ▶  $M4_{\text{ethnic}}$  also includes the predicted-achieved gap. Consequently, this model is equivalent to  $M3$  in the first model group, with the addition of ethnic group. As expected, presence of all three independent variables from  $M3$  was associated with a large increase in pseudo  $R^2$ . However, the  $R^2$  for  $M4_{\text{ethnic}}$  is the same as for  $M3$  from the first model group (.672) – suggesting that, within course, ethnic group does not predict firm course acceptance. This is illustrated in Figure 3 below.

Here, predicted-achieved gap was added last. This is to illustrate whether differences in acceptance remain after adjustment for firm choice course and UCAS predicted grades, and the extent to which these are explained by their predicted-achieved gap.

Table 6: Model group 2 pseudo R<sup>2</sup>

Model	Overall pseudo R <sup>2</sup>	Within pseudo R <sup>2</sup>
M1 <sub>ethnic</sub>	.020	n/a
M2 <sub>ethnic</sub>	.139	.010
M3 <sub>ethnic</sub>	.248	.136
M4 <sub>ethnic</sub>	.672	.623

### Average prediction by ethnic group

Figure 3 shows average predicted firm acceptance for both models, by ethnic group<sup>12</sup>. It uses the average prediction approach. This allows comparison between models with different independent variables.

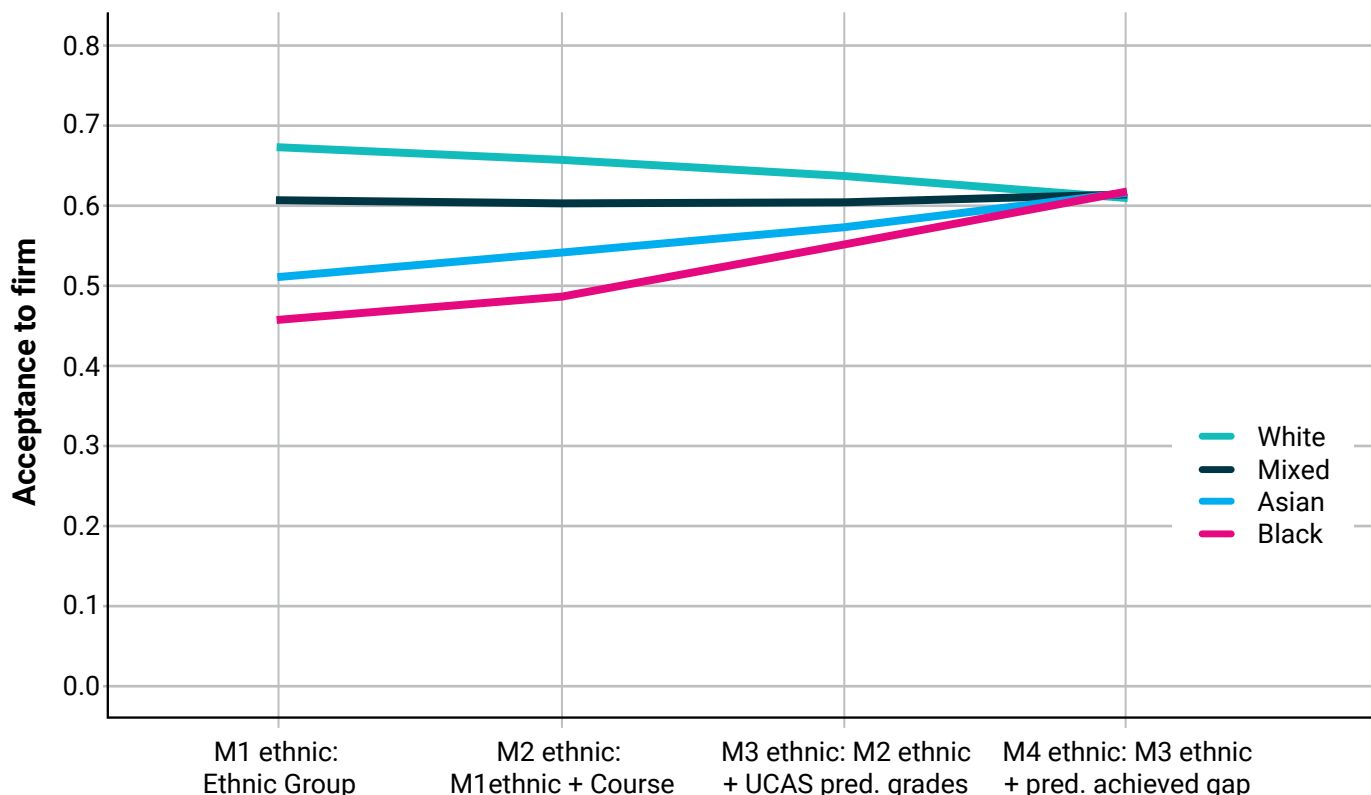


Figure 3: Average predicted firm acceptance by ethnic group

### Interpreting average predictions by ethnic group

- M1<sub>ethnic</sub>: In a model without further statistical controls, there is a large firm acceptance gap between White applicants and those from minority ethnic groups – especially Asian and Black ethnic groups - with the latter having much lower acceptance.
- M2<sub>ethnic</sub>: Inclusion of a firm course fixed effect (M2<sub>ethnic</sub>) allows comparison of applicants with the same firm choice course. This already narrows the gap between applicants from the White ethnic group and those from the Asian and Black ethnic groups.
- M3<sub>ethnic</sub>: Comparing applicants with both the same firm choice course and the same UCAS predicted grades further reduces the gap.
- M4<sub>ethnic</sub>: Comparing applicants with the same level of predicted-achieved gap, as well as the same firm choice and the same UCAS predicted grades shows no significant differences between ethnic groups in acceptance to firm.<sup>13</sup>

<sup>12</sup> The two smallest ethnic groups, 'Other' and 'Unknown/Prefer not to say' are included in the model but not in the plot.

<sup>13</sup> Compares all pairs of ethnic groups using the `avg_comparisons` function in the R *marginalEffects* package. The alpha level was set to 0.01 due to the large number of comparisons.

In summary, applicants from ethnic minorities – particularly the Black and Asian ethnic groups - are less likely to be accepted to their firm choice. Compared to White applicants with the same firm course and UCAS predicted grades, these groups’ lower firm acceptance is explained by their lower achievement relative to UCAS predicted grades. In other words, there is no difference between ethnic groups in acceptance to firm with statistical adjustment for UCAS predicted grades, predicted-achieved gap and firm course.

Model group 3: Effect of POLAR4 quintile on acceptance to firm

Research by UCAS (2025) and Leckie and Maragkou (2024) demonstrates disadvantaged applicants achieve further below their UCAS predicted grades than their advantaged peers. We investigated whether their greater predicted-achieved gap (along with their UCAS predicted grades and course choices) explained their lower firm acceptance rates.

Descriptive analysis

Table 7 below shows the firm acceptance for each POLAR4 quintile, and the proportion of the modelling sample in each quintile. POLAR4 quintile 1 had the lowest acceptance to firm and quintile 5 the highest. Quintile 1 comprised the smallest proportion of the sample, at 9%, and quintile 5 the largest (39%).

Table 7: POLAR4 quintile: firm acceptance and category distribution

POLAR4 quintile	Proportion accepted to firm	Proportion in category
Quintile 1	56%	9%
Quintile 2	58%	12%
Quintile 3	59%	17%
Quintile 4	60%	23%
Quintile 5	65%	39%

The models

Independent variables were added sequentially, in the same order as in model group 2, with POLAR4 quintile replacing ethnic group.

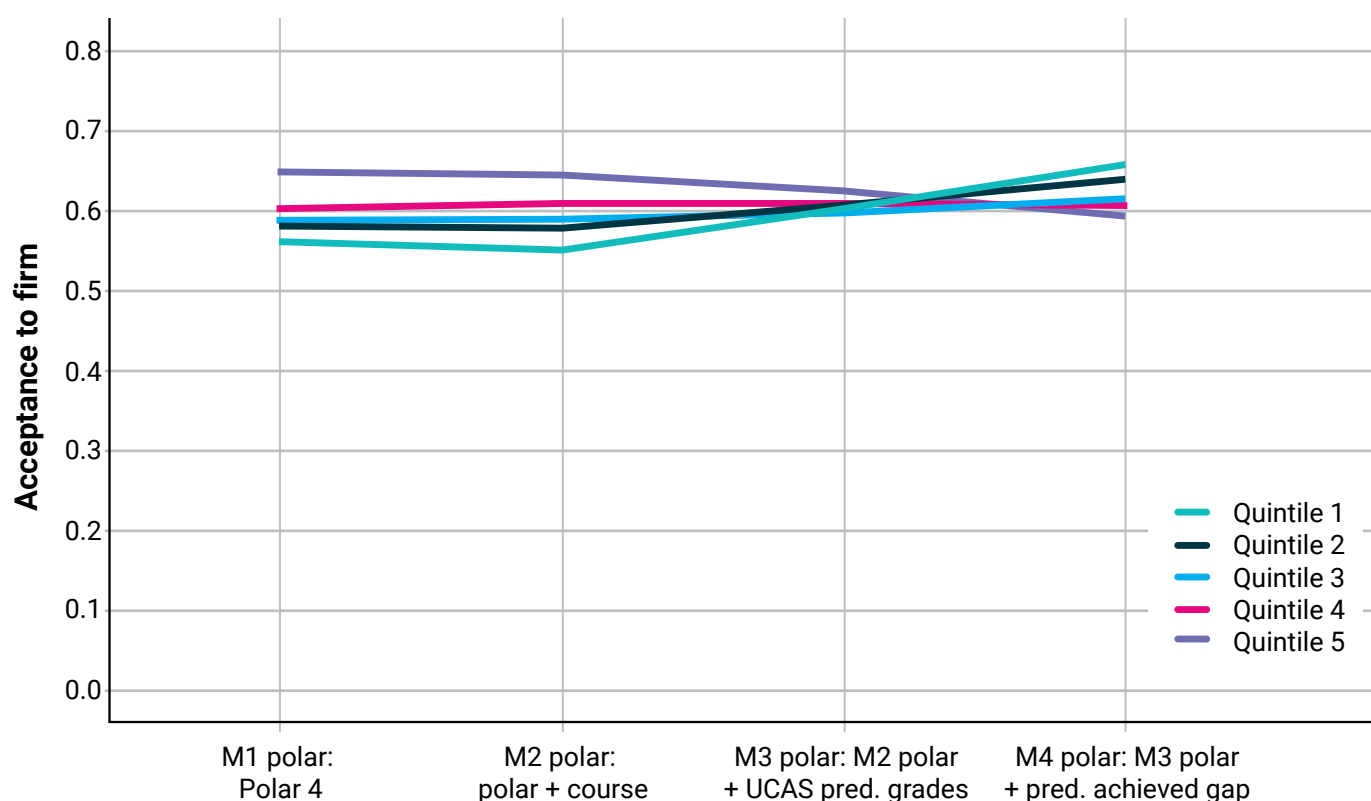
- ▶ M1<sub>polar</sub> includes only POLAR4 quintile as an independent variable.
- ▶ M2<sub>polar</sub> additionally includes a firm course fixed effect.
- ▶ M3<sub>polar</sub> adds applicant predicted grades.
- ▶ M4<sub>polar</sub> also includes the predicted-achieved gap. Consequently, this model is equivalent to M3 in model group 1, with the addition of POLAR4 quintile. As expected, the combined addition of these independent variables was associated with a large increase in pseudo R<sup>2</sup>. Notably, the R<sup>2</sup> for this model is slightly higher than M3 in the first model group (.676, compared with .672), since there are differences in firm acceptance between POLAR4 quintiles beyond other factors, as shown in Figure 4 below.

Table 8: Model group 3 pseudo R<sup>2</sup>

Model	Overall pseudo R <sup>2</sup>	Within pseudo R <sup>2</sup>
M1 <sub>polar</sub>	.003	n/a
M2 <sub>polar</sub>	.133	.004
M3 <sub>polar</sub>	.245	.132
M4 <sub>polar</sub>	.676	.627

## Average prediction by POLAR4 quintile

Figure 4 shows average predicted firm acceptance for all models, by POLAR4 quintile.



**Figure 4: Average predicted firm acceptance by POLAR4 quintile**

### Interpreting average predictions by POLAR4 quintile

Findings are consistent with both the lower achievement of disadvantaged applicants relative to predicted grades (UCAS, 2025), and [provider use of POLAR4 \(in addition to other contextual data\) in admissions](#).

- ▶ In a model without statistical controls (M1<sub>polar</sub>) more disadvantaged applicants (those from lower POLAR4 quintiles) have lower firm acceptance compared with Quintile 5.<sup>14</sup>
- ▶ Adding a firm course fixed effect (M2<sub>polar</sub>) had minimal impact on the gap in firm acceptance – a similar gap persisted when comparing applicants within the same course.
- ▶ Comparing applicants with the same firm course and UCAS predicted grades (M3<sub>polar</sub>) shows much smaller differences between POLAR4 quintiles.
- ▶ However, Model 4 (M4<sub>polar</sub>) illustrates that with statistical control for all three factors (firm choice course, UCAS predicted grades and the predicted-achieved gap), more disadvantaged applicants are in fact more likely to be accepted to firm. The model-adjusted acceptance for Quintile 1 was the highest, followed by Quintile 2.<sup>15</sup>

It is useful to consider the results from Model 4 - showing a positive effect of disadvantage on acceptance to firm - in the context of the initial descriptive analysis, which shows lower acceptance rates for more disadvantaged applicants. Together, they suggest contextual admissions reduces, but does not eliminate, an attainment-related acceptance gap between advantaged and disadvantaged applicants with the same firm choice course.

<sup>14</sup> In M1<sub>polar</sub>, there are significant differences between all pairs of POLAR4 quintiles ( $p < 0.01$ ) other than between Quintile 2 and Quintile 3.

<sup>15</sup> In M4<sub>polar</sub>, there are significant differences between all pairs of POLAR4 quintiles ( $p < 0.01$ ) other than between Quintile 3 and Quintile 4.

# ACKNOWLEDGEMENT

This report benefited from expert peer review by George Leckie, Professor of Social Statistics and Co-Director of the Centre for Multilevel Modelling (CMM) at the School of Education, University of Bristol, UK.

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# APPENDIX 1: INDIVIDUAL PREDICTED PROBABILITIES OF FIRM ACCEPTANCE FOR APPLICANTS ACHIEVING 2 TO 4 GRADES BELOW UCAS PREDICTIONS

Figure 5 is a density plot of individual predicted probabilities underlying the average predictions in Figure 1 of the main report. Predicted probabilities are shown for achievement 2, 3 and 4 grades below UCAS predictions, as these had the highest variability. Vertical lines show the average prediction at each of the three levels. These are the same as shown in Figure 1.

The plot illustrates the wide spread of probabilities at each of these predicted-achieved gaps, and the location of the density peaks. For example, while the average predicted probability of acceptance at 'Achieved 3 grades below' was 55%, many applicants had a very high or low probability of acceptance.

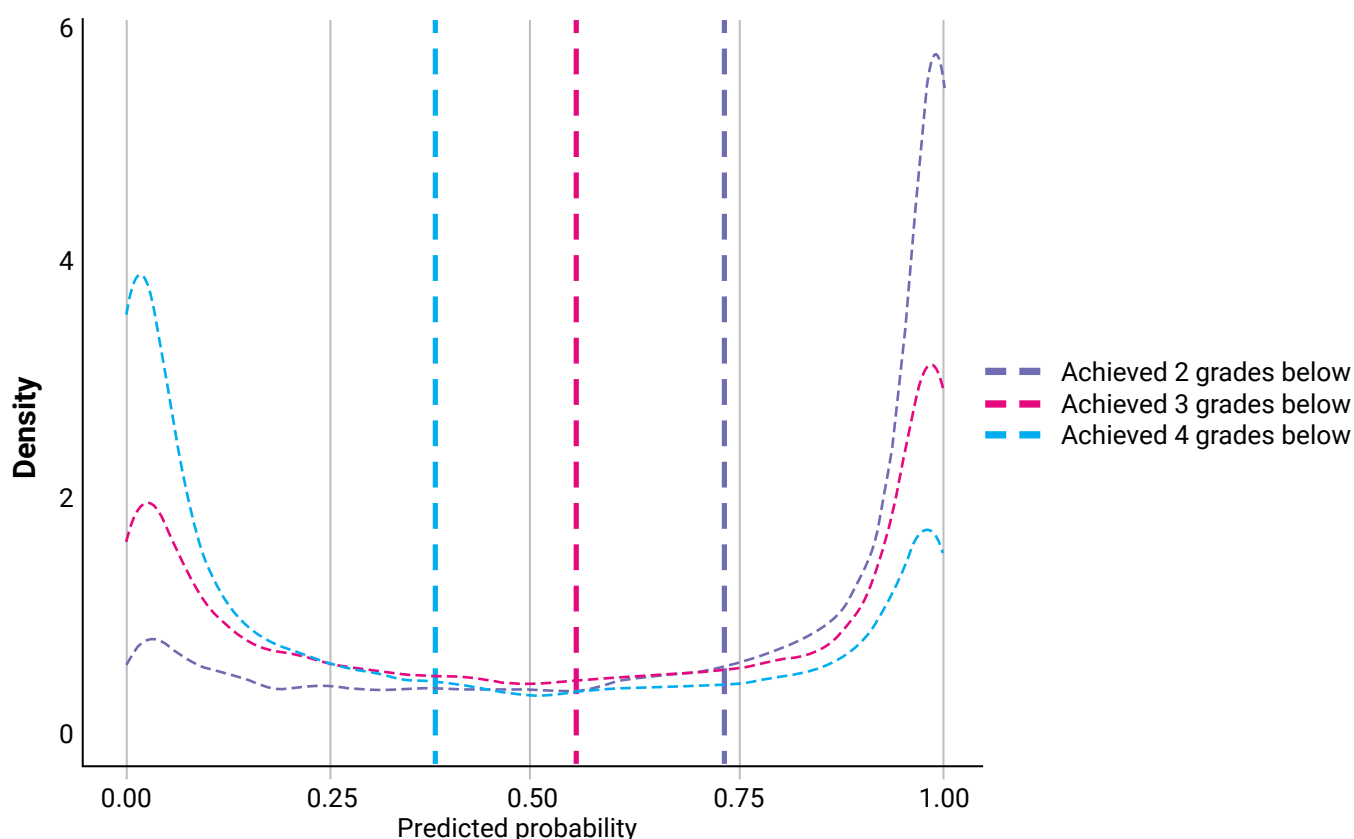


Figure 5: Individual predicted probabilities of firm acceptance, for achievement 2, 3 and 4 grades below UCAS predictions

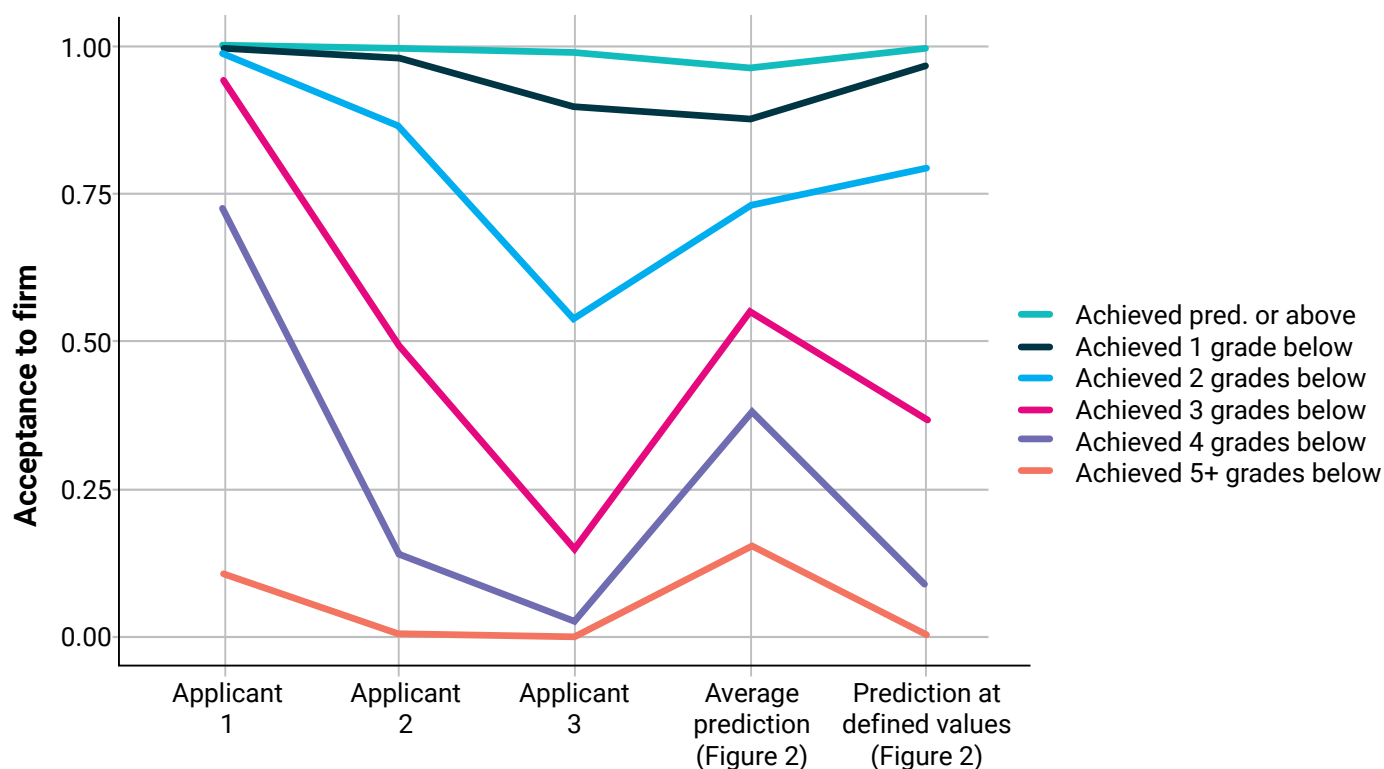
# APPENDIX 2: PREDICTED ACCEPTANCE FOR THREE APPLICANTS PREDICTED AAA, WITH DIFFERENT FIRM COURSES

Figure 6 illustrates the importance of firm choice course in applicant outcomes.

Applicant 1, Applicant 2 and Applicant 3 all have UCAS predicted grades of AAA, or equivalent points. However, the three applicants have different firm choice courses. These correspond to the 75th, 50th (median) and 25th percentiles of the firm course fixed effect for (appended to) AAA (or equivalent point) predicted applicants. These are the firm courses of Applicants 1, 2 and 3 respectively.

The three applicants have different predicted probabilities of acceptance with each predicted-achieved gap. For example, Applicant 1 has a high chance of acceptance (72%) even if they achieve 4 grades below UCAS predictions (equivalent to achieved grade BBC). In contrast, Applicant 3 has a sharp fall in predicted acceptance if they achieve more than 1 grade below UCAS predictions. Their probability of acceptance at two grades below (equivalent to achieved grade ABB) is only 54%.

Applicant 2 (50th percentile) is similar to the Prediction at defined values 'average' applicant and course from Figure 2. This is unsurprising, since they are two different definitions of an 'average' observation. However, none of the example applicants resemble the population-averaged Average prediction from Figure 2.



**Figure 6: Predicted acceptance for three AAA predicted applicants with different firm courses, and comparison with Figure 2**

