

UCAS' verification service – processes for the flagging and cancellation of applications to prevent fraud

1. Overview

UCAS' verification service provides a valued and necessary service to students and the higher education sector, to help prevent anyone gaining an unfair advantage or securing a place by deception. Applications can be 'flagged' for investigation for potential fraudulent activity in one of four ways: through the use of industry standard software for fraud detection, the use of similarity detection software for personal statements, if they appear to be duplicate or multiple applications, or if universities, colleges, or others have relevant concerns.

Where applications are flagged, UCAS' Verification Team asks applicants for additional information, and in most cases, issues are resolved, and the application continues. However, if information is not provided, or false or misleading information is found, applications are cancelled. All applications are subject to a review prior to a cancellation decision, and applicants whose applications are cancelled have a right of appeal.

As part of our commitment to openness and transparency, UCAS has undertaken analysis to examine why a higher proportion of applications from UK domiciled Black students are being flagged for investigation and cancelled, compared to the Black applicant population and to the applicant population of other ethnic groups. This report examines all UK domiciled applicants applying to undergraduate courses over the period 2013 to 2017, and looks at patterns of application flagging, cancellation, and withdrawal by ethnic group.

Key findings and actions

- i) **The number of applications flagged and cancelled every year is small.** Over the five-year period from 2013 to 2017, only 0.18% of a total of 2,913,525 UK domiciled applicants had their applications flagged (5,160 people), and 0.07% had their applications cancelled (2,085 people).
- ii) **Typically, around 40% of flagged applications are cancelled. This is true for all ethnicities, and the percentage of applications cancelled is broadly proportionate to the percentages flagged in each ethnic group. For example, 16% of flagged applications come from the Asian ethnic group, and 18% of cancelled applications are from Asian applicants. This suggests that the verification activities undertaken by UCAS are generally robust and fair.** UCAS has also reviewed all cancelled applications from 2017 and 2018. This has confirmed that applications have been cancelled for genuine reasons, such as the failure of the applicant to respond to queries raised, or because of the detection of false or forged qualifications.

iii) **Whilst ethnicity is not used in any of the processes that can lead to an application being flagged, there are differences by ethnicity in applicants flagged. A greater proportion of flagged applicants (52%, across all flagging processes) are Black, compared to the proportion of Black applicants in the applicant population (9%).** This equates to 2,675 Black applicants being flagged out of an applicant population of 260,550. Proportionally more Black applicants are flagged through the fraud detection service, the similarity detection service, duplicates, and the Alerts process, compared to other ethnic groups. We cannot definitively say why this is. Our investigation into this, and actions we plan to take, are summarised below.

iv) **UCAS uses specialist software for fraud detection, which screens applications against historical reference data about fraudulent applications. This does not include information about applicants' ethnicity or nationality. Over the five years analysed, a disproportionate number of flagged applicants (65%) are from the Black ethnic group. While there are likely to be a number of reasons for this, we believe that the accumulation of historical data, and the inclusion of all applications that have not been cleared in the reference dataset, could be contributing to the results observed.** For the 2019 admissions cycle, UCAS has already enhanced the service and cleansed the reference data, so the service matches applications against six years of historical data, an industry standard. This is likely to reduce the risk of false positives across all applicant groups.

UCAS will further review the reference data used, and the usage of data about applicants who have been flagged, but neither cancelled or cleared. UCAS will implement an annual review and cleanse of all reference data, in advance of the opening of each admissions cycle.

v) **The similarity detection service flags a greater proportion of Black applicants (53%), compared to the applicant pool (9%).** As this is an automated service, which uses textual analysis, and contains no information about name, address, ethnicity, or nationality, UCAS believes that the results observed for flagged applicants are not influenced by an applicant's ethnicity.

vi) **The Alerts process – where universities, colleges, and others raise issues about applications or individuals – results in proportionally more applicants from the Black ethnic group being flagged (37%), compared to the applicant pool (9%).** Of the Alerts from 2017, 87% are raised by universities and colleges – they do not have access to information about an applicant's ethnicity at this point in the admissions process.

UCAS has conducted a deep dive into the university data for 2017. This shows that Alerts were spread widely across 67 different providers, and that the majority of providers flagged only one or two applicants. In almost all instances, patterns of ethnicity are broadly representative of application patterns by ethnicity. UCAS will share the findings with the higher education sector, to foster the development of good practice.

vii) In addition, in response to the broader finding of this analysis, UCAS will:

- **publish annual statistics about the verification service** – this will include a breakdown by ethnicity and other characteristics, such as sex, age, and socio-economic background, as part of our end of cycle reporting;
- **use reporting information to improve information and advice for all applicants** – this will include an annual survey of applicants whose applications are flagged, and will use the annual data and survey findings to identify which applicants may need additional advice to make good quality applications, and to target improved resources to relevant schools and colleges, as well as more broadly;
- **strengthen the voice of Black, Asian, and minority ethnic applicants in UCAS’ decision-making** – we want to ensure our services reflect the needs and experiences of all students. UCAS will reach out to a number of organisations that work specifically with Black, Asian, and minority ethnic students, to seek their advice on how to ensure the voices of all students are reflected in UCAS’ decision-making and processes.

2. UCAS’ verification service

On behalf of students, universities, and colleges, UCAS screens applications for false, missing, or misleading information, to maintain the integrity of UK higher education, and to prevent fraud. Our aim is to avoid anyone gaining an unfair advantage, or securing a place by fraud or deception. Our counter-fraud activities complement those undertaken by universities and colleges, and other service providers, such as the Student Loans Company.

The verification service is highly valued by universities and colleges, with a 90% satisfaction rating in 2017. The service has been regularly reviewed to ensure it continues to meet customers’ needs. All UCAS staff involved in verification activities have undertaken unconscious bias training.

We explain the verification process to students when they apply, and it can also be found [on our website](#).

Applications submitted to UCAS are normally subject to two separate sets of automated checks. They are evaluated using fraud detection software, and personal statements are screened using similarity detection software. If an issue is detected with an application, it is ‘flagged’, and subject to investigation for potential fraudulent activity. Applications can also be flagged where they appear to be duplicate applications, or if universities, colleges, or UCAS staff have concerns about an application, or if a third party (such as a school or employer) has a concern about an individual. These are termed ‘Alerts’.

When applications have been flagged, UCAS’ Verification Team asks applicants or their referees for additional information, for example, to provide original documentation or other details. We aim to give everyone the opportunity to resolve issues with us.

In the majority of cases (about 60%), the provision of additional information enables the issue to be resolved, and the application to continue. However, if issues cannot be resolved, or

applicants or their referees are found to have provided false or misleading information, UCAS will cancel their applications. All applications are subject to a second review prior to a cancellation decision.

The most common reasons for applications being cancelled are the failure of the applicant to provide the information or clarification requested, detection of false qualifications, and the discovery of forged documents. Applicants whose applications are cancelled have a right of appeal.

3. Overview of flagged, cancelled, and withdrawn applications by ethnicity

As described above, the key components to UCAS' verification service are:

1. The systems and processes used for flagging applications for investigation for potential fraud.
2. The subsequent investigation of flagged applications, and the decision about whether to cancel an application.

To examine these in detail, we have analysed the data on all UK domiciled applicants applying to undergraduate programmes over the period from 2013 to 2017. Not all applications are subject to all the verification activities. The baseline applicant population used for this analysis takes account of these differences.

In addition, some applicants choose to withdraw their applications once they have been notified they have been flagged, and we have also examined the prevalence of this.

The tables below set out the proportion of applicants flagged by ethnicity, and the proportions of those flagged which are either cancelled or withdrawn.

Table 1: UK domiciled undergraduate applicants – total flagged and total cancelled, and proportion by ethnic group (2013 to 2017)

Ethnic group	Applicant baseline		Flagged		Cancelled	
	No.	%	No.	%	No.	%
Asian	320,400	11	840	16	370	18
Black	260,550	9	2,675	52	1,100	53
Mixed	118,520	4	235	5	110	5
Other	49,330	2	245	5	95	5
White	2,127,965	73	995	19	340	16
Unknown/prefer not to say	36,765	1	170	3	70	3
Total	2,913,525	100	5,160	100	2,085	100

The numbers of applications from UK domiciled applicants flagged and cancelled every year are very small. Over the past five cycles, fewer than two in every 1,000 (0.18%) have their application flagged. About 0.7 in every 1,000 applicants (0.07%) have their application cancelled.

3.1 Flagged applications

Table 1 shows that although White applicants comprise 73% of all applicants, only 19% of all those who have their application flagged are White. All other ethnic groups comprise a greater proportion of flagged applicants than would be in line with the baseline. In particular, 52% of flagged applications come from the Black ethnic group, against a baseline of 9% of all applicants declaring their ethnicity as Black. The drivers behind this are explored in section 4.

3.2 Cancelled applications and appeals

Table 1 shows that the percentage of applications cancelled by ethnic group are broadly proportionate to the percentages flagged in each ethnic group.

UCAS has reviewed all cancelled applications from the 2017 and 2018 admissions cycles. This has confirmed that applications have been cancelled for valid, evidence-based reasons. The most common reasons for cancellation are the failure of the applicant to provide the information or clarification requested, the discovery of forged documents, and the detection of false qualifications. We cannot know why applicants and referees do not respond to requests for additional information from the Verification Team, and these reasons are likely to be varied.

Applicants whose applications are cancelled can appeal to UCAS. In 2017, four cancellation decisions were appealed by UK applicants (across all schemes), the appeal process found that the grounds for challenge for unfounded.

3.3 Withdrawn applications

Some applicants choose to withdraw their applications once they have been notified they have been flagged. We do not know why some applicants withdraw rather than providing the information requested, and there are likely to be many reasons for this.

Overall, the number of flagged applicants who withdraw their applications is small (225 over five years)¹. With the exception of the Asian ethnic group, the proportions of applicants making withdrawals are broadly in line with, or lower than, the proportion of applicants flagged. While this suggests that the investigation process does not have a differential impact on most flagged applicants, further investigation is needed with particular regard to Asian applicants.

4. Detailed assessment of flagged and cancelled applications, by ethnicity and verification route

This section examines each of the four flagging processes, using the relevant applicant cohort, and a five-year dataset, to explore the proportion of applications flagged in relation to the applicant population, and the relationships between flagged and cancelled applications by ethnicity. Alongside this, supplementary data is provided, giving a year-by-year breakdown of the data from 2013 to 2017.

¹ Data on withdrawn applications over 2013 to 2017 is in table 6 in the supplementary data report.

4.1 Fraud detection

UCAS uses a leading fraud detection software programme, which is widely used in retail, e-commerce, utilities, the public sector, and financial services².

All UCAS undergraduate applications are screened by fraud detection software, which checks applications against historical reference data on fraudulent applications, using a consistent set of criteria and logic rules. The service uses combinations of criteria such as name, address, and date of birth, which are commonly used when people apply for a bank account, credit card, or car loan, as well as information about multiple applications. Information about an applicant's ethnicity or nationality is not included.

The reference data used includes historical data about fraudulent applications, and applications which were previously flagged for investigation, but which remain unresolved. Matching to previous fraudulent applicants is a recognised way of preventing fraud in both the public and private sectors.

Table 2: UK domiciled undergraduate applicants – total flagged by fraud detection and total cancelled, and proportion by ethnic group (2013 to 2017)

Ethnic group	Applicant baseline		Flagged		Cancelled	
	No.	%	No.	%	No.	%
Asian	320,400	11	215	11	65	12
Black	260,550	9	1,230	65	370	69
Mixed	118,520	4	70	4	20	4
Other	49,330	2	75	4	25	4
White	2,127,965	73	235	13	50	9
Unknown/prefer not to say	36,765	1	60	3	10	2
Total	2,913,525	100	1,880	100	540	100

Table 2 shows that a significantly higher percentage of applicants flagged through fraud detection come from the Black ethnic group. Correlation is not causation, and there are likely to be a number of reasons for this disproportionality. However, investigation suggests that accumulation of historical data, and the inclusion of all applications that have not been cleared in the reference dataset, could be contributing to the results observed.

Despite the significantly higher number of Black applicants in the flagged group, numbers of applications cancelled as a result of flagging are broadly consistent across all ethnic groups, including the Black group. All cancelled applications from the 2017 and 2018 cycles have been reviewed, and all have evidenced-based reasons for cancellation.

² Hunter software (excluding reference data) is provided by Experian Ltd.

For the 2019 admissions cycle, UCAS has enhanced the fraud detection service, and has cleansed the reference data, so the service matches applications against six years of historical data. This is likely to reduce the risk of false positives across all applicant groups. Keeping six years' worth of data is an industry standard, and this approach also reflects likely patterns of fraudulent applications, and recognises that a single undergraduate application cycle runs over an 18-month period.

UCAS will further review the reference data used, and the usage of data concerning applications that have been flagged but neither cancelled or cleared. UCAS will implement an annual review and cleanse of all reference data, in advance of the opening of each admissions cycle.

4.2 Similarity detection

UCAS screens personal statements against current, historic, and publicly available personal statements to identify duplication of keywords, phrases, and sentences, using similarity detection software³. An application is flagged if similarity is detected above a threshold value, or if other concerns are raised with a statement, for example, if it is very short. Applications submitted at the end of each admissions cycle are not screened through similarity detection.

Where applications are flagged as a result of similarity detection, UCAS informs the universities or colleges to which the applicant has applied. Providers may choose to reject an application on this basis, but UCAS does not hold records of reasons for rejection. In addition, UCAS' Verification Team will investigate applications flagged as a result of similarity detection, where other potential issues are identified, e.g. concerns with qualifications or a reference.

Table 3: UK domiciled undergraduate applicants – total flagged through similarity detection and investigation for fraud, and total cancelled, and proportion by ethnic group (2013 to 2017)

Ethnic group	Applicant baseline		Flagged		Cancelled	
	No.	%	No.	%	No.	%
Asian	312,285	11	270	18	110	19
Black	244,750	9	790	53	330	57
Mixed	115,300	4	65	4	30	5
Other	46,310	2	65	4	25	4
White	2,083,630	74	280	19	80	13
Unknown/prefer not to say	23,375	1	30	2	10	2
Total	2,825,655	100	1,500	100	585	100

Table 3 shows that significantly more Black applicants are flagged through the similarity detection process than other ethnic groups. Since this is an automated service, containing no

³ Copycatch software is provided by CFL Software Ltd.

information about name, address, ethnicity, or nationality, and uses solely textual analysis, UCAS believes that the flagging results observed are not influenced by an applicant's ethnicity.

The proportion of White applicants flagged through the similarity detection process, whose applications are subsequently cancelled, is statistically lower than the flagged population. For all other ethnic groups, the proportion cancelled is consistent with the proportion flagged.

In developing its application management service, UCAS will consider incorporating the collection of data from universities and colleges about applications which have been rejected on the grounds of similarity detection, or other fraud related issues.

4.3 Duplicate check

UCAS has automated processes designed to detect and cancel duplicate applications. Sometimes what appear to be duplicate applications are detected in the application database. Some are false positives, where applicants share a name and date of birth, but are two different individuals. Where there are real duplicate applications, one will remain live in the system, and the other(s) will be cancelled.

Overall, fewer than 0.01% of applicants are flagged though duplicate checking, and 46.2% of flagged applications are cancelled post-investigation. Although there are proportionally more Black, Mixed, Other, and Unknown/prefer not to say applicants flagged, the numbers are very small, and proportions of applications cancelled are in line with those flagged.

4.4 Alerts

If universities and colleges have concerns about an application – for example, if qualifications appear to be faked or inflated – they can raise this issue with UCAS' Verification Team, to have the application flagged and investigated. At the point at which these concerns are raised with UCAS, universities and colleges do not have information about an applicants' ethnicity, as this information is only shared after admissions decisions have been made.

Additionally, the Verification Team may be contacted about individuals by a number of different organisations, including schools, colleges, employers, banks, and, sometimes, the police. Some of these groups and individuals may be aware of applicants' ethnicities at the time issues are raised.

Table 4: UK domiciled undergraduate applicants – total flagged by the Alerts process and total cancelled, and proportion by ethnic group (2013 to 2017)

Ethnic group	Applicant baseline		Flagged		Cancelled	
	No.	%	No.	%	No.	%
Asian	320,400	11	325	21	185	22
Black	260,550	9	565	37	350	41
Mixed	118,520	4	70	5	40	5
Other	49,330	2	90	6	45	6
White	2,127,965	73	415	27	190	22
Unknown/prefer not to say	36,765	1	70	5	35	4
Total	2,913,525	100	1,540	100	850	100

Table 4 shows that a significantly higher proportion of Black, Other, and Unknown/Prefer not say applicants are flagged through the Alerts process, in relation to the total applicant population.

The proportion of White applicants flagged through the Alerts process, whose applications are then cancelled, is lower than the proportion of the flagged population, and the proportion of Black students having their applications cancelled is slightly higher. For all other ethnic groups, the proportion cancelled is consistent with the proportion flagged. All cancelled applications from the 2017 and 2018 cycles have been reviewed, and all have evidenced-based reasons for cancellation.

Analysis of the 2017 cycle data shows that 87% of applications flagged through the Alerts process are as a result of issues raised by universities and colleges, and 13% are from other sources. Among the Alerts raised by other third parties, the number of applicants affected is small, and there is no pattern in relation to ethnicity.

The data on Alerts raised by universities and colleges shows that in 2017, 67 different providers raised queries about the applications of 249 applicants. The majority of providers flagged only one or two applicants. Three universities flagged 11 or more applicants. In almost all instances, patterns of ethnicity are broadly representative of application patterns by ethnicity. UCAS will share the data and findings with individual universities, and with the higher education sector at an aggregate level, to foster the development of good practice on raising Alerts.

5. Findings and actions

Fraud in admissions to higher education is a genuine issue. Unfortunately, some people use fake, forged, or exaggerated qualifications, references, or other documentation to gain a place by deception, or with a view to gaining access to student finance or other services only available to legitimate students. UCAS has a responsibility to students, universities, and colleges, to detect and prevent fraudulent applications, as part of sector-wide verification and counter-fraud activities.

This deep dive into UCAS' verification service has identified a number of findings which give us confidence in the robustness of the processes used to investigate flagged applications, and where cancellation decisions are made, but has also identified issues that need to be addressed in relation to the flagging of applications for investigation.

UCAS has already taken a number of actions. For example, in enhancing our fraud detection software for the 2019 cycle, we have cleansed the reference data, in line with industry standard retention policies.

Further planned activities include an annual review and cleanse of reference data, introducing an annual survey of applicants whose applications are flagged, improving our information and advice for applicants who may need additional help to make good quality applications, and improving our communications about verification activities.

We will work with the higher education sector to share our findings, and foster the development of good practice on raising Alerts, and verification activities more generally.

We are committed to transparency in all our operations, and will publish annual statistics about the verification service, including a breakdown by ethnicity and other characteristics such as age, sex, and area-based socioeconomic background, as part of our end of cycle reporting. More broadly, we want to ensure our services reflect the needs and experiences of all students. We will seek to work with organisations that represent Black, Asian, and minority ethnic students, to ensure the voices of all students are reflected in UCAS' decision-making and processes.