# ofqual

# Ofqual privacy impact statement: 2020 grading

This privacy impact statement provides details of how Ofqual has complied with the General Data Protection Regulation (GDPR) in relation to the standardisation modelling and process that will be used to standardise grades following the cancellation of exams this year. Due to the pandemic, exceptional arrangements have been put in place this year to award grades. We understand that individuals may be concerned about how and why personal data has been processed.

Any processing of personal data must comply with GDPR. A data privacy impact assessment has been conducted by Ofqual. This is designed to describe the processing of personal data, assess its necessity and proportionality and manage the risks to the rights and freedoms of individuals resulting from the processing and to determine measures to address them. This can support compliance with GDPR.

This privacy impact statement is a simplified version produced by Ofqual to enable individuals to understand in clear and plain language the processing of personal data that has taken place.

> If you need extra help, would like this notice in another format (for example: audio, large print, braille) or if you have any questions about this privacy impact assessment, please contact our Data Protection Officer using the contact details below.

# Description of processing

Ofqual has developed a standardisation model to be applied by exam boards in order to standardise grades. Some have referred to this as an algorithm or a mathematical procedure, but no artificial intelligence is used. This model is a critical tool to enable standards in qualifications to be maintained and for fairness between centres (usually schools or colleges) to be achieved. In order to develop and test the model, Ofqual has processed personal data of students. Once the model is applied by exam boards it will also use personal data, but this will be done by the exam boards. As is always the case, it will be the exam boards which determine and issue the grades for each individual candidate. Ofqual will provide oversight of the model and carry out modelling to check the application of the model. Details of the personal data used are given below.

There are some aspects of the approach this year, such as the use of statistics to support the maintenance of overall standards, that follow well-established practices. In a typical year, following assessments, exam boards will ensure standards are maintained using statistical predictions based on prior attainment data and senior examiner judgments about the quality of work. This enables exam boards to set grade boundaries.

This year the process requires a new approach to be taken in the absence of formal assessments. The model developed draws on historical available candidate data to both standardise centre assessed grades and to maintain overall standards.

Ofqual has published a factsheet and video explaining how the model will work in practice.

In summary, the exercise to determine final grades this summer will follow a number of stages.

First, the centre will determine the centre assessed grade and rank order for candidates. This exercise is conducted by professionals at the centre, usually by teachers. The centre assessed grade is the grade that the centre assesses the individual candidate would have most likely achieved had exams gone ahead, based on the work done by the candidate to date. The centre will also, for each subject, place each candidate in rank order based on the teachers' view of their relative ability. The rank order allows exam boards to understand the relative strengths of candidates who are assessed by their centre at the same grade.

Next, this information is sent to exam boards, who will perform a standardisation exercise using the model specified by Ofqual. The focus of this Privacy Impact Statement is on the role of the model and the personal data used in it.

# How does the model work?

For each centre, the model generates a prediction of the grade distribution in each subject and give an allocation of the grades based on the following sources of evidence:

- the centres' historical grade distributions in the subject - that is the grades of every student taking the qualification in the subject at that centre over a number of years; the exact number of years will depend upon the qualification
- the prior-attainment of those candidates in previous years who entered for the subject through that centre – that is how these students performed in exams earlier in their education - for A level and AS level qualifications this looks at their GCSE results - for GCSE this looks back to their results on national assessments (Key Stage 2)
- The prior-attainment of candidates entering for the subject this year through that centre compared to previous years; again, for A level and AS level this will be GCSE results and for GCSE this will be their results on national assessments (Key Stage 2)
- the national value-added relationship mapping the historical relationship between candidates' prior attainment and their final grade in the subject

# Step 1

For each centre and for every subject, the model will use historical performance data to determine the proportion of candidates achieving each grade in previous years. It will check this year's previous attainment against previous years and adjust the predicted grade distribution to factor in the ability of candidates for this year. Depending on the ability of candidates this year, the grade distribution may be adjusted up or down.

For example, if the prior attainment data of students for 2020 suggests that they are more able, the grade distribution will be adjusted to have a higher proportion of grades at the top and a lower proportion at the bottom.

A grade distribution will be provided by the model for each centre and every subject this year.

# Step 2

The model will overlay the centre's rank order of students onto the predicted grade distribution and allocate grades to students without changing the rank order. For some students the grade that they are allocated will not be the same as the centre assessed grade that was submitted.

# Step 3

Exam boards will carry out checks and interrogate grades arising from this process, where appropriate. They will also compare the overall results compared to those in previous years (controlling for prior-attainment) to check that they are not too generous or too severe for students this summer.

# Step 4

Once grades have been standardised and checked, the final calculated grade is issued.

The above process will be conducted for the majority of candidates but there are different arrangements for candidates from centres with a small entry.

# Is a standardisation model necessary?

The model allows for moderation of centre assessment grades. In the absence of a common approach by centres to award centre assessed grades, there will be cases where some grades are severe and others are generous. The standardisation model ensures that a process is in place to review and standardise centre assessment grades across centres. Without a process to review and adjust centre assessment grades, this could lead to unfairness where grades are too severe or generous. It could lead to the integrity and credibility of grades being compromised.

Ofqual has considered whether there is a less intrusive way to achieve this purpose and concludes that this approach is a proportionate and reasonable one in order to allow students to progress.

There are known issues with absolute accuracy of grades estimated by teachers (as evidenced in the research literature) meaning that standardisation is necessary. However, the relative judgements teachers make between candidates, which is provided in the rank order they submit, is likely to be more reliable and must be relied upon. Therefore, the standardisation model does not adjust the rank order provided by the centre.

Ofqual has tested a range of models and selected a model that is as fair and as accurate as possible.

# What personal data is processed?

The final standardisation model will draw on the following sources of evidence:

- historical outcomes for each centre; i.e. the grades achieved by candidates entering for each subject
- the prior attainment (Key Stage 2 or GCSE) of this year's students and those in previous years within each centre; and
- for AS, A levels, extended project and advanced extension award qualifications the standardisation will consider historical data from 2017, 2018 and 2019 - an exception to this is A level D&T where historical data from 2019 will be used and for AS D&T where historical data from 2018 and 2019 will be used
- for GCSEs, it will consider data from 2018 and 2019, except where there is only a single year of data from the reformed specifications, where data from 2019 will be used - for reformed GCSE subjects being awarded for the first time this summer, historical data from the legacy specification in 2019 will be used
- Centre assessed grades and rank order for students

Historical candidate data is used in any typical year for the purposes of maintaining standards. These data are used to form a value-added relationship between prior-attainment for a cohort and the grades candidates received. It is this value-added relationship which is carried forward to future years in the statistical predictions and is a well-established approach. While this part of the process remains in place this year, the use of the historical data has been extended to the standardisation process itself, as described.

In testing and developing the model, Ofqual created a dataset from the summer awarding data that it receives from exam boards each year. This was anonymised or pseudonymised where possible and the level of personal data used has been limited to that absolutely necessary for the purpose.

In the case of testing the model for bias, Ofqual has processed special category data. This is data regarded as being particularly sensitive such as health and

ethnicity data. To be able to process such data, Ofqual must have a lawful basis. Ofqual relies on the processing being necessary for reasons of substantial public interest (Article 9 (2) (g)). To rely on the substantial public interest condition, it is necessary to meet a specific condition set out in Part 2 of Schedule 1 DPA 2018. Ofqual relies on paragraph 6 of Schedule 1 DPA 2018 (the exercise by Ofqual of its statutory functions). For all personal data, including non-sensitive data, Ofqual relies on Article 5(1)(e) GDPR because it is processing the data in the performance of its statutory functions set by Parliament.

# Fairness & transparency

The principle of fairness requires Ofqual to consider how the processing may affect the individuals concerned and justify any adverse impact. It also requires Ofqual to handle personal data in ways that individuals would reasonably expect, or explain why any unexpected processing is justified.

Transparency is about being clear, open and honest with individuals about how and why personal data is processed.

We do not consider that individuals should be surprised by the processing taking place.

Moreover, Ofqual has consulted upon the standardisation model, providing detailed information including:

- why the model is necessary to be able to moderate teacher assessments
- how this will be developed
- the data that will be used to perform standardisation

Ofqual received broad support for the aims and principles of the standardisation model. The use of a standardisation model is new this year to address the unprecedented circumstances of the pandemic and Ofqual has through its consultation process and various media publications provided detailed information to allow individuals to know how and why personal data will be processed to standardise grades. Ofqual has published guidance and information to Centres and students to explain the process that will be undertaken this year.

Ofqual has also published an exceptional circumstances privacy notice.

Ofqual has throughout engaged with a range of stakeholders to provide clear information about the processing taking place.

In developing the model, Ofqual has had regard to any adverse impacts and undertaken extensive testing to ensure that the model selected is the fairest possible. In doing so the test data is the most accurate dataset.

Further, the model will be applied by exam boards by users who are trained to implement this responsibly and carry out checks and scrutiny to ensure that this is operating correctly. Ofqual will also provide oversight of the application of the model.

The model has been tested by Ofqual for discriminatory effects to ensure that individuals are not advantaged or disadvantaged on the basis of their socio-economic background or particular protected characteristics.

Ofqual intends to publish the final details of the model on A level results day. Centres will be able to check the reliability of the model and if they feel that the model has not been applied correctly, can submit an appeal.

# Does automated processing take place including profiling?

The process for awarding grades this year involves automated elements as well as human elements. The automated element is carried out by the standardisation model to generate centre predictions. Whilst we do not profile individual candidates, we do profile the centre. In doing so, Ofqual has used appropriate mathematical procedures and implemented measures to reduce inaccuracies and minimise errors.

[Details of this aspect of processing and an explanation of how personal data is processed to reach the prediction](#) has been published by Ofqual.

Article 22 GDPR gives individuals the right not to be subject to a solely automated decision. In this case, the decision-making process involves human intervention. The calculated grade is not based solely on automated processing. Rather, the model will support the human intervention involved in the form of centre assessment grades and rank orders which will be determined by teachers and signed off by other individuals within the centre. In particular, the rank order of candidates – i.e. where they place relative to their peers at the centre – is assessed by teachers and will not be affected by the standardisation model.

Furthermore, responsible officers at the exam boards will review the final outcomes before signing off their awards. The review by exam boards will involve checking the outcomes from the model for individual subjects. This involves exam board staff undertaking detailed scrutiny of the operation of the model to ensure that it is performing as required, including, where appropriate, considering the outcomes for individual centres. Further to this, exam board staff will interrogate any instances where outputs appear anomalous or they consider merit further scrutiny. Responsible officers will decide whether to sign off the awards and may choose to reject or carry out further scrutiny.

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