

22 June 2018

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Dear

Summer 2018 Data Exchange Procedure

This letter is to notify you that we have published the Summer 2018 Data Exchange Procedures for GCE and GCSE qualifications (the procedures) and accompanying templates on our website. The procedures are a Regulatory Document and come into effect immediately.

It is important that grade standards across all exam boards are consistent. Reviewing awarding data in advance of results will provide us with some assurance that this has been achieved.

As in previous years, the information shared with the regulators and between exam boards is confidential and should only be used for the purpose of monitoring summer award outcomes.

Consultation

We consulted all affected exam boards in respect of the procedures. We discussed the procedures with you at the Maintenance of Standards meeting on the 7 June 2018 and have allowed an opportunity for representations.

There was a single outstanding issue in respect of the proposed approach for generating predictions for the reformed AS specifications in further mathematics in England. We discussed this at the Maintenance of Standards meeting on the 7 June 2018 and allowed an opportunity for representations. While the discussions focused on the AS specifications being awarded for the first time in summer 2018, we also considered the implications of any decisions for A level further mathematics, first awarded in summer 2019. We consider that making a consistent decision for both AS and A level is desirable.

We considered all of the representations made during the meeting. We did not consider that any convincing evidence was presented to change our view on the proposed reference series, either during the meeting or prior to this, so we intend to proceed as we proposed. We confirmed this at the meeting and the rationale for our approach is set out in this letter.

Background

This summer, the first awards will be made for reformed AS specifications in further mathematics. The reformed specifications are standalone qualifications, meaning that the awarding will be guided by predictions based on AS further mathematics outcomes from a previous series. In the legacy qualifications, further mathematics shared some units with A level mathematics qualifications and the standards of the latter were generally prioritised. Thus, predictions were not necessarily used by all exam boards to guide the awards of the legacy AS further mathematics qualifications.

We have discussed at the Standards and Technical Issues Group (STIG) how the predictions should be generated for reformed AS further mathematics in summer 2018 (and for A level further mathematics in summer 2019). AS further mathematics is a phase 3 reform subject. For other phase 3 AS reform subjects it has been agreed that predictions in summer 2018 will be generated for matched 17-year-olds based on the average outcomes of matched 17-year-olds in 2011 and 2012. This aligns with the principles for determining reference series that were discussed and agreed via STIG.

Applying these principles to AS further mathematics in summer 2018 suggests that, in line with the other phase 3 AS subjects, predictions should be generated for 17-year-olds based on outcomes in 2011 and 2012, unless there is good reason or technical evidence to change this. While there has been agreement at STIG that predictions should be generated for 17-year-olds, there has not been agreement about the reference series that should form the basis of these predictions. The JCQ Standards and Technical Advisory Group (STAG) have also discussed this issue but have not provided a recommendation to STIG, since there is no agreement on the approach to be taken.

At the Maintenance of Standards meeting on 7 June, having considered the discussions at STIG, we set out our proposed approach for generating predictions for the reformed AS specifications in further mathematics this summer – that is, to generate predictions for 17-year-olds based on the average of 2011 and 2012 outcomes for AS further mathematics. We set out our rationale for this approach at that time and have summarised that rationale below.

Considerations

We consider that the reference series for AS further mathematics should align with the other phase 3 reform AS subjects, unless there is good reason or technical evidence to change this. This aligns with the principles for determining reference series that have been agreed through STIG. However, given that the awarding of the legacy AS further mathematics specifications was not guided by a prediction in all exam boards, consideration was given to the implications of using different reference series for the reformed specifications by STAG. The analyses by STAG have considered the impact of using different reference series on the predicted outcomes by comparing inter-board screening outcomes against a benchmark prediction between 2011 and 2017.

These analyses found that overall at AS the outcomes at grade A were close to prediction in all years except 2017, when the outcome exceeded prediction by 2.37%. While overall outcomes were generally close to a benchmark prediction at AS, there were some large variations between exam boards – some exam boards exceeded the benchmark prediction, some were below the prediction, and others were close to the prediction.

The same exercise at A level showed that overall outcomes at grade A have exceeded a benchmark prediction by an increasing amount each year, such that by 2017 the outcomes exceeded prediction by 5.45%. Again, however, there were large variations between exam boards of a similar nature to AS. Thus, there is no consistent pattern between boards at either AS or A level.

The analyses by STAG also showed that between 2011 and 2017 the cohort of matched candidates for both AS and A level further mathematics has increased. While at AS the prior attainment of the matched candidates, as indicated by the predicted outcome at grade A, has remained broadly stable, at A level the prior attainment of the matched candidates has declined. Thus, although the actual grade A outcome at A level for matched candidates remained broadly stable between 2011 and 2017, the difference between the predicted and actual outcomes increased, because the prediction was decreasing year-on-year. As outlined above though, there were differences between exam boards.

The increasing difference between the predicted and actual outcomes at A level suggest that the standard of the qualification has drifted over time, or that students are increasingly performing in a manner that does not align with expectations based on their prior attainment. During the discussions at STIG it has been suggested by STAG that the introduction of the Further Mathematics Support Programme might have had an impact on performance and outcomes. This is a national project that intended to encourage centres without further mathematics entries to enter students for this qualification. It has been suggested by STAG that these 'additional' candidates might have better 'value added' than the existing cohort. However, no technical evidence has been presented to support this.

The differences between exam boards are also difficult to explain in the context of the support programme. It seems unlikely that a support programme would differentially impact on students entering with different exam boards. Thus, it seems more likely that the differences are due to the extent to which individual exam boards have been able to control the standard in AS and A level further mathematics, given the structure of their specifications and the commonality with AS and A level mathematics.

We therefore consider that no convincing evidence has been presented to support changing the reference series from the average of 2011 and 2012 for AS further mathematics. As confirmed at the Maintenance of Standards meeting on the 7 June 2018, we have finalised the data exchange procedures on the basis that predictions

used for awarding reformed AS further mathematics specifications will be based on the average of AS further mathematics outcomes from 2011 and 2012.

The following materials will be available next week from the secure collaborative portal:

- Summer 2018 Data Exchange Procedure
- Exam board specific reporting templates
- Details of our processes for reviewing outcome data, which has also been published on our website.

In recent years we have published on our website any correspondence with exam boards about maintaining standards in GCSEs, AS or A levels in the summer. We intend to do the same this year.

I look forward to reviewing the outcomes with you at the Maintenance of Standards meetings on the 1st and 7th August. In the meantime, if you or your colleagues have any questions, please get in touch with me or Rachel Taylor.

Yours sincerely,



Cath Jadhav
Director, Standards and Comparability