

This document is based on the paper considered by the Ofqual Board on August 19 in reaching decisions on setting grade standards for new GCSEs in 2017. It provides more detailed technical explanations of the approach that Ofqual will be taking.

The board agreed all recommendations.



Issue

1. Ofqual decided last year that new GCSEs in England should be awarded using a new grading scale. This will use the numbers 1-9 in place of the present letter symbols A*-G.
2. In April we launched a consultation on how grade standards would be set on the first new GCSEs using the nine-point scale. The Board is now invited to take decisions on the issues on which we consulted with respect to the summer 2017 awards. Decisions about subsequent awards of the new GCSEs will be brought to a future meeting of the Board.
3. This paper does not re-visit the decisions the Board has already taken on the design features of GCSEs that will apply to all subjects. Neither does this paper repeat all the reasoning behind the proposals on setting grade standards in new GCSEs as this was set out in our consultation document. This paper should therefore be read alongside our consultation document available on our website: http://ofqual.gov.uk/ofdoc_categories/consultation-docs/setting-gcse-grade-standards-april-2014/, the report commissioned from YouGov which summarises the consultation responses plus our equality analysis and regulatory impact assessment that form part of this paper.

Recommendations

4. The Board is invited to agree the following recommendations for awarding of the first three new GCSEs in summer 2017.
 - a. Awarding will be based primarily on statistical predictions – a development of the method used at present.

- b. The predictions will be used to ensure that in each subject there is statistical alignment between the new grade 3/4 boundary and the present grade C/D boundary.
- c. The predictions will be used to ensure that in each subject there is statistical alignment between the new grade 6/7 boundary and the present grade A/B boundary.
- d. The predictions will be used to ensure that in each subject there is statistical alignment between the new grade U/1 boundary and the present grade G/U boundary.
- e. The 8/9 boundary will be set in each examination so that 20% of those candidates awarded at least a grade 7 are awarded a grade 9.
- f. Grade boundaries that are not set using statistical rules will be set arithmetically, as now.

5. The Board is invited to note that:

- a. By positioning the new grade 5 in the top third of the marks for the current grade C and the bottom third of the marks for the current grade B, it will be of greater demand than the present grade C. If students presently achieving grade Cs were to achieve grade 5s, that may be broadly in line with what would be required to match the average performance of 16 year olds in England with the PISA mathematics performances of countries such as Finland, Canada, the Netherlands and Switzerland.
- b. Outcomes from the national reference tests will not contribute to awarding in summer 2017. Ofqual will set in place arrangements governing the use of national reference test outcomes in summer awarding after 2017 to help the maintenance of standards over time.
- c. Regulatory documents (such as conditions of recognition) to give effect to the Board's decisions will be drafted for consultation. The consultation will be technical and targeted primarily at exam boards.

Background

6. Following consideration of the outcomes of a consultation launched in June 2013, the Board decided at its meeting on 16 October 2013 that the new GCSEs in England should use a new grading scale comprising nine points – with 9 being the highest grade – plus an ungraded outcome. The new scale should allow broad equivalence between the current C/D and new 3/4 grade boundaries. The first awards using the new scale will be made in summer 2017 for GCSEs in English language, English literature and mathematics.

7. In coming to its decision, the Board recognised that over time, the proportions of candidates awarded the highest grades had increased while the proportions of candidates awarded the lowest grades had decreased. The new scale would provide more discrimination in the middle to higher levels and less discrimination at the lowest levels.
8. At its next meeting on 27 November 2013 the Board considered a paper that described ways in which grade standards could be set using the new GCSE grading scale. It agreed that stakeholder views should be sought on these matters before a formal consultation was carried out.
9. In early 2014 we held focus groups to consider a range of GCSE and A level reform issues. In terms of the work on setting grade standards in new GCSEs, headteachers attending mainly wanted to know what the equivalent to the present grade C would be in the new system.
10. Consultation proposals were developed through discussions with both Ofqual's Standards Advisory Group – the role of which is to consider and advise the Board on qualification standards issues – and technical experts from the exam boards. The Board received an update at its meeting on 26 March 2014 and it endorsed the proposed approach to the consultation.
11. Since that time we have established Ofqual's Reform Technical Working Group which has membership from Ofqual staff and technical experts in the exam boards. It has met monthly with the boards carrying out modelling work – looking at what the outcomes might be if new rules for setting standards using the new grading scale were applied to different mark distributions in several subjects.
12. The modelling has been very helpful when considering alternative approaches to setting particular grades. The data used in the modelling work were either mark distributions from previous GCSE examinations or were simulated mark distributions. Until the new examinations with their new-style exam papers are sat in summer 2017, we cannot know for sure what the real mark distributions will be. The models give us the best estimates available at this time.
13. Our consultation ran from 3 April until 30 June 2014. During the consultation period we held six events at which we considered the proposals with about 120 teachers, subject association representatives, employers, exam boards and others. The events were intended to provide an opportunity for participants to find out more about our proposals and to engage in an important debate. We encouraged those attending to respond to our formal consultation.
14. We received 216 written responses to the consultation. Although this total is smaller than other recent consultations on reforms, respondents did include the

main groups that represent schools and teachers, the four exam boards and some subject associations¹.

15. We commissioned YouGov to analyse the responses and produce a report for publication. The YouGov report is attached at Annex A for members to consider. Only the top-line figures from the consultation are generally given in the main part of this paper.
16. We have analysed the potential impact of the proposed reforms on people who share protected characteristics. Our equality analysis is attached at Annex B.
17. We have had due regard to these potential impacts in evaluating the options and making recommendations. We have also had regard to the potential impact of the proposals on schools and exam boards. A regulatory impact assessment is given at the end of this paper.
18. This paper focuses on awards of new GCSEs in summer 2017. The three subjects involved will be awarded again in summer 2018 alongside the first awards of some other GCSE subjects. The Board's decisions for summer 2017 GCSE awards provide the structural framework for making subsequent awards. We will evaluate the implications further before providing the Board with recommendations for any changes, probably at the level of procedural changes, for summer 2018 awards. We will also be developing plans for how we can best appraise the summer 2017 awards so that lessons learned can be applied to the summer 2018 awards. Additionally, work is in hand to consider how November awards in English language and mathematics should be made given the atypical and small candidature that can be expected.

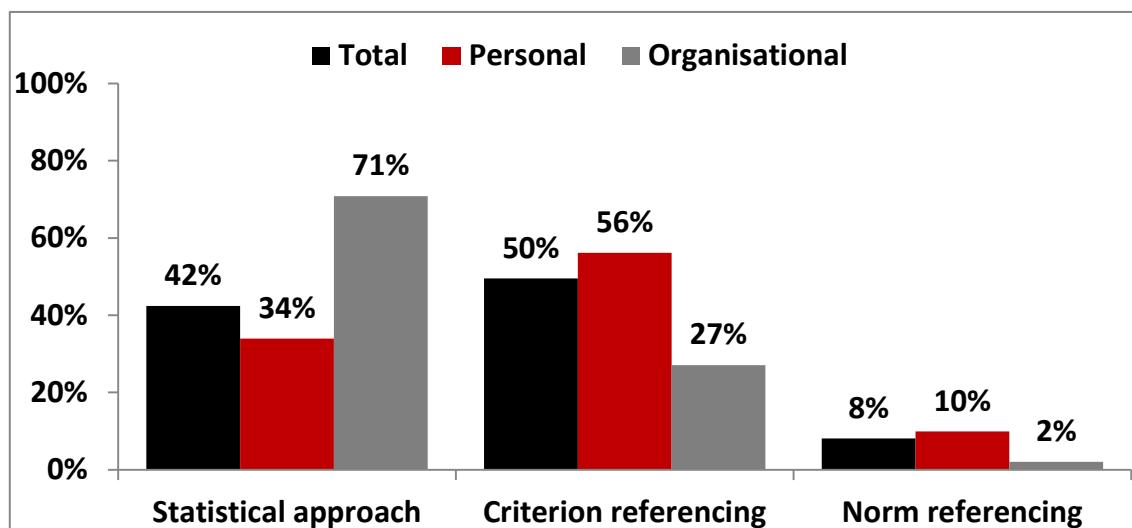
The approach to setting grade standards in new GCSEs

19. In the consultation, we described three ways in which grade standards for new GCSEs could be set in the first year:
 - an approach that uses statistical information to link the award of the new grades to current grades
 - a criterion referenced approach in which awarders judge students' work against descriptions of expected performance
 - a norm referenced approach in which the proportion of each grade available to the cohort is pre-determined

¹ The list of the organisations that provided consultation responses is given on pages 52-54 of the YouGov report (Annex A).

20. In our consultation we state that neither a criterion referenced nor a norm referenced approach would be suitable and that our preference was to develop and adapt the current approach that uses statistical information rather than introduce a new one.
21. 50% of respondents ranked criterion referencing first compared with 42% who ranked an approach using statistical information first and just 8% who ranked norm referencing first.
22. Among the 162 personal responses, 56% ranked criterion referencing first. The majority of teachers favoured criterion referencing. However, 71% of the 48 organisational responses ranked the use of statistical information first. This included the four exam boards and eight out of nine teacher representative organisations.

Consultation: first preferences reported for how standards should be set



23. At the six events at which we considered the proposals in detail with stakeholders during the consultation, there was strong support for an improved version of the current approach.
24. Norm referencing attracted little support in the consultation and we think would produce significant problems if introduced into GCSEs. As the cohorts for different subjects vary, awarding grades using the same pre-determined set of percentages would make the same grade in different subjects have a very different meaning.
25. We said in our consultation document that it would be difficult to use criterion referencing in a way that would be consistent, meaningful or fair. When GCSEs were first being developed in the mid-1980s the Government's intention was that criteria-related grades would be introduced as soon as practicable with candidates who reached the required standard being awarded those grades.

Despite heroic efforts, it proved impossible in practice to meet that intention. So GCSEs have never been criterion referenced.

26. In a study of international practice in maintaining qualification standards, NFER evaluated the position in 10 jurisdictions². Only New Zealand uses a method that is close to criterion referencing and has had a long battle to make it work at an acceptable level.
27. In deciding which method should be used it is important to remember that it is an approach that has to work in a system in which different exam boards provide competing products in the same subject – a peculiarity of the British system that provides additional challenges to standards setting.
28. On reflection, our view has not changed. We recommend that awarding of the first three new GCSEs in summer 2017 should be based primarily on statistical predictions – a development of the awarding method used at present. That is the most appropriate awarding method for GCSEs and represents the lowest risk option.

Setting the standard for each grade

Overview

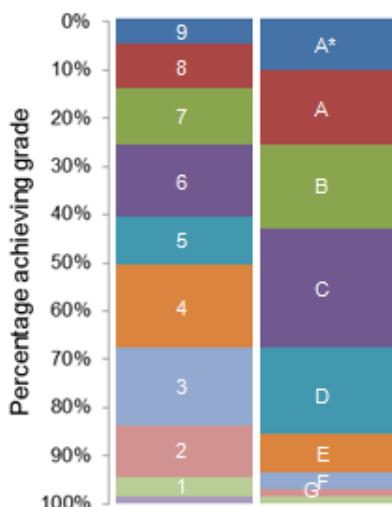
29. If we are to adopt an approach that uses statistical information to link the award of the new grades to current grades then the key questions are which grades will have this statistical link and, if not all grades, how will the other grades be awarded?
30. In the consultation we made a firm proposal about linking the new 3/4 grade boundary to the present grade C/D boundary. We also consulted on specific proposals related to the setting of grades 1, 5, 7, and 9.
31. In the recommendations detailed below we propose using statistical predictions when deciding the marks for the U/1, 3/4 and 6/7 grade boundaries so that they are linked to current grades. We discuss the standard of grade 5 and how this may relate to performance standards in high-performing jurisdictions. We recommend a separate approach for the award of grade 9. The other grades would then be awarded using interpolation – arithmetic division of mark ranges – a method used at present for some grades.
32. The diagrams below are derived from some of the modelling work for the Reform Technical Working Group carried out by the exam boards. They give an indication in six subjects of what the grade distributions look like if the current

² Alberta, Canada; Finland; France; Germany; Hong Kong, China; New Zealand; Singapore; South Korea; The Netherlands; Massachusetts, USA.

and proposed awarding rules are applied to some mark distributions from 2010 – the last year for most subjects of linear GCSEs.

33. The subjects were chosen to provide some variety. English and mathematics are taken by very large numbers, geography by about a third of the cohort and chemistry by a high-performing group. All four of those subjects are tiered. Drama and physical education are untiered, have fairly typical grade distributions but the marks may be more bunched than normal. Each of the diagrams represents an aggregate of some examinations from different exam boards with the same subject title – but not the overall national picture.
34. As the Board intended when it decided to introduce the 1-9 grading scale, judging by these data the new rules we propose do provide more discrimination than now in the middle to higher levels of the scale and less discrimination at the lowest levels.

GEOGRAPHY



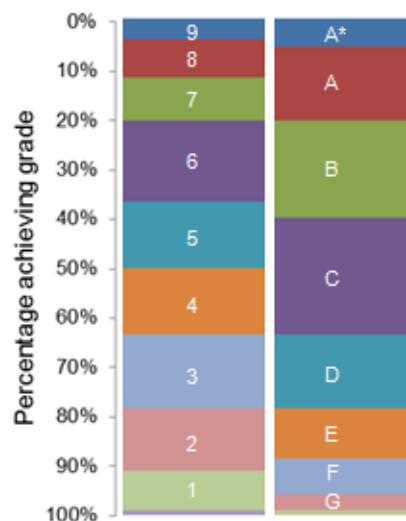
CHEMISTRY



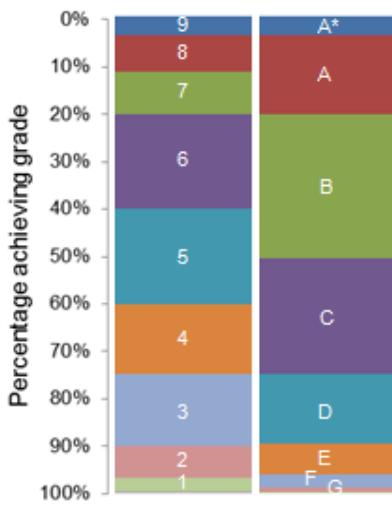
ENGLISH



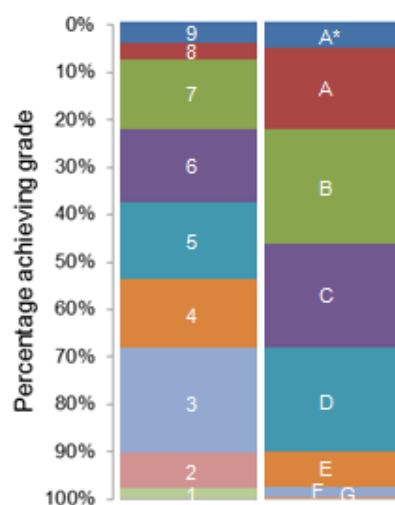
MATHEMATICS



DRAMA



PHYSICAL EDUCATION



Setting the standard for grade 4

35. Given its link to the present grade C, the award of the new grade 4 will be a critical part of the new arrangements. In 2017 we propose that awarding should use statistical predictions, much as now. The predictions will show the proportion of students that would have been expected to be awarded at least a grade C had they taken the current GCSE. We proposed in the consultation that these predictions should be used to determine the proportion of students who are awarded at least a grade 4 in the new GCSE. The predictions will be derived from the cohort's performance in their Key Stage 2 tests relative to the performance of previous cohorts, as now.
36. In the consultation there was good support for this proposal. 68% of respondents agreed with the proposition, 27% disagreed and 4% had no opinion or did not know. Among those who agreed, the main themes coming across through the supplementary open comments were that it enabled a clear link between the two grading systems and it was a fair and sensible approach which would provide a reference point. Those who disagreed argued that grades should not be manipulated; they should be based on specific grade descriptions and the knowledge the student has as opposed to standardised scores.
37. Providing a link between the new grade 3/4 boundary and the present grade C/D boundary is the pivotal part of the proposals presented here. It has received a good level of support in the consultation. None of the modelling work has suggested it raises any problems. It does provide a way in which students taking the first exams in summer 2017 will not be advantaged or disadvantaged over their predecessors by prioritising statistical predictions over performance

standards – applying the *ethical imperative* to be as fair as possible to those who happen to be taking their GCSEs during a major change to the system.

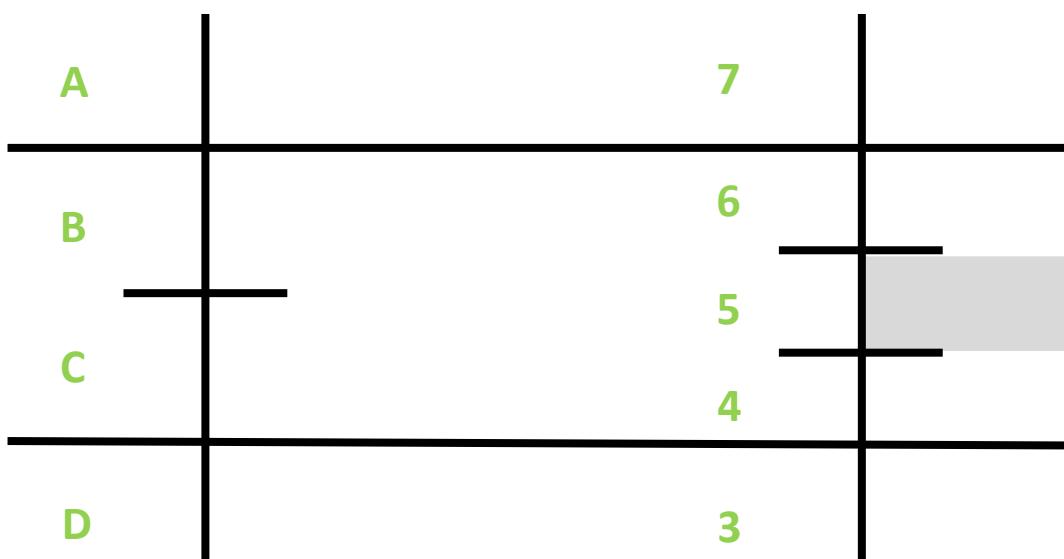
38. We therefore recommend that statistical predictions should be used in the summer 2017 awards to ensure that in each subject there is statistical alignment between the new grade 3/4 boundary and the present grade C/D boundary.

Setting the standard for grade 5

39. In our consultation we said that we have considered the Government's policy as described in the Secretary of State 6 February 2013 letter to us: "At the level of what is widely considered to be a pass (currently indicated by a grade C), there must be an increase in demand, to reflect that of high-performing jurisdictions." We proposed that the standard of performance for a grade 5 should align to the expected standard for similar qualifications or exams taken in high-performing jurisdictions.
40. 35% of respondents agreed with this proposition, 49% disagreed and 17% had no opinion or did not know. Respondents who agreed with this proposition felt that while a good idea it would be difficult to implement and a few felt it was fair and reasonable. Those who disagreed felt that systems across jurisdictions are to some extent incomparable and that the grades should only align with jurisdictions that have similar systems to us.
41. At the consultation events we held the proposal also received only limited support. There was a strong dislike expressed for mapping against international benchmarks.

By aligning the new grade 3/4 boundary and the present grade C/D boundary (see above), the bottom of grade 5 will inevitably be situated above the bottom of grade C. If additionally the new grade 6/7 boundary is set using a statistical alignment with the present grade A/B boundary (see proposals below) then the new grade 4/5 boundary will automatically be set two-thirds of the mark width of the grade C above the present grade C/D boundary³. The new grade 5 will then be positioned in the top third of the marks for the current grade C and the bottom third of the marks for the current grade B. This can be seen in the diagram below.

³ This assumes that the 4/5 and 6/7 boundaries are set arithmetically. This process is set out in more detail on pages 18 and 19 of this paper.



42. Positioning the new grade 5 in that way means that grade 5 will be of greater demand than the present grade C.
43. There are some high profile international tests in use. For the past 20 years The International Association for the Evaluation of Educational Achievement (IEA) has run TIMSS (Trends in International Mathematics and Science Study), measuring trends in mathematics and science achievement for 10 and 14 year olds. IAE is also responsible for PIRLS (Progress in International Reading Literacy Study) which, for the past 15 years has measured trends in reading comprehension of 10 year olds.
44. For the past 15 years the Organisation for Economic Co-operation and Development (OECD) has run a triennial international survey, the Programme for International Students Assessment (PISA), in which 15 year olds across some 65 economies take a test of skills and knowledge in mathematics, science and reading. Of the three tests, only PISA is taken by students close to the time of their GCSE assessments.
45. We have taken into account a Department for Education (DfE) evaluation of the performance of students in PISA 2009⁴. The linking here between PISA scores and GCSE grades is indirect but the best presently available. The DfE report expresses the gap in PISA performance in reading, mathematics and science between pupils in England and their peers in the top-performing jurisdictions in terms of measures of attainment used nationally, including GCSE grades across a student's best eight GCSE or equivalent qualifications. In reading and

⁴ *Pisa 2009 Study: How big is the gap? A comparison of pupil attainment in England with the top-performing countries.* Available at:

www.gov.uk/government/uploads/system/uploads/attachment_data/file/181601/DFE-RR149.pdf

science the gap was equivalent to an average of at least half a grade across the 'best eight'. In mathematics the gap was equivalent to an average of at least a whole grade. The DfE has updated this analysis looking at the 2012 data and found the position substantially unchanged. (The analysis is yet to be published.)

46. PISA's methodology has been the subject of much criticism of late. We should also recognise that PISA measures slightly different constructs from GCSE. GCSE scores are calculated differently from PISA scores. GCSE and PISA scores will not be perfectly correlated. Nevertheless PISA is well established, does provide credible information which is perhaps the best comparisons available for us and the results are seen as very significant around the world.
47. Critically here what we are not proposing is that the standard for grade 5 in new GCSEs is tied either to a point on the PISA scale or to performance standards in one or more overseas jurisdictions.
48. We recommend setting the new grade 4/5 boundary arithmetically so that grade 5 is positioned in the top third of the marks for the current grade C and the bottom third of the marks for the current grade B. Grade 5 can then be seen as being of greater demand than the present grade C.
49. The DfE analysis indicates that if students presently achieving grade Cs were to achieve grade 5s, that is broadly in line with what would be required to match the average performance of 16 year olds in England with the PISA mathematics performances of countries such as Finland, Canada, the Netherlands and Switzerland. Once the new grades have been awarded, we propose carrying out analyses to see how students with a grade 5 perform on international surveys such as PISA. We can then consider, in the context of Ofqual's qualifications standards objective, whether our expectations of the grade 5 standard are being met.

Setting the standard for grade 7

50. Our consultation document said that we were considering aligning grade 7 with grade A. 68% of respondents said this would be appropriate and 32% said that it was not. There were very few additional comments made in the responses.
51. As part of the work of Ofqual's Reform Technical Working Group, the exam boards carried out some modelling intended to explore possible ways of setting grade standards for the new GCSEs. Details of the modelling are given in Annex C.
52. The outcomes were considered at the meeting of Ofqual's Standards Advisory Group on 2 May. On the basis of the modelling members expressed strong

support for a model that has links between the current grade A and the new grade 7.

53. We recommend that statistical predictions should be used in the summer 2017 awards to ensure that in each subject there is statistical alignment between the new grade 6/7 boundary and the present grade A/B boundary.

Setting the standard for grade 9

54. In our consultation we also proposed setting the grade boundary for a grade 9 so that 50% of the proportion of students who would previously have been awarded an A* are awarded a grade 9 in the first year. As we explain below, we are now recommending a different proposition – that 20% of those achieving at least a grade 7 are awarded a grade 9.
55. 58% of respondents supported our consultation proposal while 42% did not. Again, there were very few additional comments made in the responses. Among those that did comment, the key concerns raised were that setting such a high limit would restrict achievement of some students and would be unfair, the impact that the proposition has on grade 8, and that grade 9 should be for exceptional results.
56. The consultation proposal and two others were modelled. The three models were:
 - 50% those achieving grade A* are awarded a grade 9 (“the 50% rule”) – the proposal favoured in the consultation
 - Setting grade 9 arithmetically – broadly the way that grade A* is set now
 - 20% of those achieving at least a grade 7 are awarded a grade 9 (“the 20% rule”) – an alternative approach
57. Fuller descriptions of the three models, details of the modelling carried out and a review of the main data produced are given in Annex C.
58. The outcomes from the modelling were discussed by Ofqual’s Reform Technical Working Group at a meeting on 18 June and then again by Ofqual’s Standards Advisory Group on 4 July.
59. The 50% rule was not generally favoured as it was seen as being tied too closely to present grade A* awards. If there are concerns about the comparability of grade standards of A* across boards or across subjects then it may not be the best starting point for the new system. Setting grade 9 arithmetically received little support. The 20% rule was considered the best option at both meetings.

60. In 2013 the percentage of candidates awarded at least a grade A who were awarded a grade A* varied considerably across subjects, averaging out at 32%. Particular examples are: science 17%, English (including English language) 23%, English literature 24%, mathematics 35%, history 35%, physics 39%, French 40%, and classical subjects 55%. (Data from JCQ UK results.)
61. Using the preferred model effectively fixes the relationship for the highest grade on the new grading scale as in all subjects, 20% of grade 7, 8 and 9 candidates are always awarded a grade 9. The grade 8 boundary mark is then set arithmetically (see pages 18 and 19 of the paper).
62. The final two columns in the table below show how summer 2013 GCSE awards (JCQ UK results) in 24 subjects and overall would have looked using the two rules. One column uses the 50% rule – half those achieving grade A* are awarded a grade 9. The other uses the 20% rule – a fifth of those achieving at least a grade 7 (taken as the same as grade A) are awarded a grade 9.

Subject	Grade A* %	Grade A+A* %	Grade 9 50% rule	Grade 9 20% rule
English	3.3	14.2	1.6	2.8
English literature	5.5	22.8	2.8	4.6
Mathematics	4.9	14.3	2.5	2.9
Biology	14.4	40.4	7.2	8.1
Chemistry	16.6	42.2	8.0	8.4
Physics	16.0	41.5	8.0	8.3
Science	1.4	8.1	0.7	1.6
Additional science	2.6	11.8	1.3	2.3
Geography	9.5	27.0	4.7	5.4
History	10.0	28.4	5.0	5.7
French	9.8	24.8	4.9	4.9
German	9.2	24.2	4.6	4.8
Spanish	10.1	29.8	6.6	6.0
Classical subjects	33.3	60.1	16.6	12.0
Art	9.7	23.8	4.8	4.8
Business studies	3.5	18.5	1.8	3.7
Design & technology	5.6	18.3	2.8	3.7
Drama	5.2	22.9	2.6	4.6
Economics	6.8	30.4	3.4	6.1
Home economics	3.0	14.4	1.5	2.9
Music	9.1	32.3	4.6	6.5
Performing arts	5.9	20.1	3.0	4.0
Physical Education	3.7	20.4	1.9	4.1
Religious studies	11.2	30.9	5.6	6.2
All	6.8	21.3	3.4	4.3

63. In 15 subjects, mainly EBacc subjects⁵, the difference in the proportion of candidates awarded a grade 9 through the two rules is no more than 1%. In classical subjects though, where the present proportions of A and A* grades are the highest, the 20% rule generates 4.6% fewer grade 9s than the 50% rule. In English, English literature and six non-EBacc subjects (highlighted in yellow in the table), the 20% rule generates 1.1-2.7% more grade 9s.

⁵ The EBacc is a DfE performance measure for schools. The EBacc is made up of English, mathematics, history or geography, the sciences, and a language.

64. Annex D shows how summer 2013 GCSE awards in each syllabus in mathematics and the English subjects would have looked using the two rules. In mathematics the two outcomes do not differ that much (2.5% and 2.9%). In English language and English literature the 20% rule provides higher proportions than the 50% rule so overall produces outcomes more similar to those in mathematics. The 20% rule produces similar outcomes for mathematics and for English and English language combined (2.9% and 2.8% respectively).
65. The new grade 9 should provide a greater level of discrimination than the present A* grade. Clearly the 50% rule would reduce the proportion of awards of the top grade by half – from 6.8% A* grades to 3.4% grade 9s. According to the modelling in the table above, across all GCSE subjects, the 20% rule would reduce the proportion of top grade awards by just over a third – from 6.8% A* grades to 4.3% grade 9s.
66. Of course it would be possible to use another percentage instead of 20%. Annex E shows outcomes for 20%, 15%, 10% and 5% rules on a selection of summer 2013 examinations. Across subjects, 20% does seem to provide a generally sensible outcome if the idea is that the proportion awarded a grade 9 overall should be less than, but not dramatically less than, the proportion awarded a grade A*. Some subject communities will see the new rule as disadvantaging their subject and perhaps affecting the number of entries. Inevitably adopting a new rule will produce a different pattern of results from those we have now.
67. We recommend that in the summer 2017 awards the 8/9 boundary should be set in each examination so that 20% of those candidates awarded at least a grade 7 are awarded a grade 9. We will return to the Board with further analysis before making a recommendation about whether the 20% rule should be applied in the same way in all subjects given the varying impact it will have.

Setting the standard for grade 1

68. In the awarding system used at present, the grade F/G boundary is set by examiner judgement based largely on statistical predictions. The grade G/U boundary is then calculated arithmetically – it is set as many marks below the F/G boundary as the E/F boundary is above it.
69. There were four questions in our consultation that related to how the grade 1 standard should be set. Question 5(c) asked whether we should set the grade boundary so that the same proportion of students who would have achieved grades G and F are awarded a grade 1 in the first year. There was no clear consensus with 52% reporting it as appropriate and 48% as not.

70. In response to question 7 of our consultation, 64% reported positively that they felt the current boundary between a grade G and an unclassified outcome is meaningful with 36% saying that it isn't. Of those responses from respondents who feel that the boundary between a grade G and an unclassified outcome is meaningful, around a third of the comments argued that grade G represents progress or a genuine achievement to some students.
71. In response to question 8, 65% reported that the grade 1 boundary should align with the current G with the remaining 35% indicating that the grade 1 boundary should align with the current grade F. Three of the four exam boards, 10 of 18 schools and five out of seven school representative bodies supported the alignment with grade G. Three of four local authorities supported the alignment with grade F.
72. Finally in relation to question 11, 79% of respondents to our consultation reported that they were not aware of any potential impacts of the proposals on persons who share protected characteristics. 21% said that they were aware of potential impacts. From the 21%, students with special educational needs and disabilities were the most mentioned group identified as being negatively impacted by the proposals. The majority of these comments came from schools and teaching professionals and stated that students with particular difficulties may find the exams inaccessible and the removal of grades at the lower end of the spectrum may disproportionately disadvantage them.
73. Students holding G grades usually find them to have no currency with employers or colleges – and that view is reflected by some in the consultation who argue that the grade 1 standard should be above a grade G. However, we are told that for some students they do represent real achievement and provide a source of motivation.
74. In coming to a conclusion we should also bear in mind that outside English and mathematics, proportions of G grades are likely to grow in the near future as accountability measures dissuade schools from entering so many students likely to achieve grades below C for non-GCSE vocational options.
75. There appear then to be two main possibilities to decide between. On the new scale we could align the bottom of grade 1 with the bottom of the current grade G. That would allow us to be assured that the arrangements are fully in line with the weight of consultation responses and with the policy steer that we received from Government on 6 February 2013 – “the reformed GCSEs should (be) accessible, with good teaching, to the same proportion of pupils as currently sits GCSE exams at the end of Key Stage 4.”
76. Given the link intended between the new grade 4 and the present grade C, aligning the new grade 1 and the present grade G would mean that four present

grades (D, E, F and G) would align with three new ones (3, 2 and 1) so that each of grades 1, 2 and 3 would be somewhat wider in terms of marks than the current grades D, E, F and G.

77. The other possibility raised in our consultation is to align the bottom of grade 1 with the bottom of the current grade F. It would send a signal about higher expectations of new GCSEs. It would allow the generation of better statistical predictions to use in awarding. It would not though allay the concerns of those who feel that under such an arrangement, students who presently achieve a grade G may be disadvantaged as they would be unclassified. Last summer, over 100,000 GCSE G grades were awarded including 35,000 in mathematics and 9,000 in English (including English language).
78. A greater proportion of candidates are awarded low grades in GCSE mathematics than in English. In summer 2013 the figures were:

	% achieving grade F	% achieving grade G	% unclassified
English	3.8	1.2	0.7
Mathematics	6.9	4.7	2.7
Overall average for GCSEs	4.1	2.0	1.2

79. The disparity between mathematics and English results – not just in the lowest grades – was raised in response to our consultation by mathematics subject associations. For example, The Advisory Committee on Mathematics Education (ACME), reflecting on the summer exam results quoted in our consultation said: “The whole cohort appears to be better at English than at mathematics . . . ACME sees no reason for such a large discrepancy . . . and urges Ofqual to use the opportunity presented in developing new standards to review and correct this inconsistency.”
80. The picture is not that clear though. Data published by DfE on the achievements of those who finished Key Stage 4 in summer 2013⁶ shows that the cohort appears to be better at mathematics than at English; this discrepancy is visible across the grade range, not just in the lower grades.

	% achieving grades A*-C	% achieving grades A*-G
English	62	87
Mathematics	68	91

81. Ofqual is presently carrying out a major piece of work on inter-subject comparability. The aim is to bring a paper to the Board at its meeting in December 2014. Until the Board has had a chance to consider that work, it would not be sound to consider any adjustments between subjects in the context of setting grade standards in new GCSEs in summer 2017.
82. Aligning the new grade 1 and the present grade F would mean that there would be three present grades (D, E and F) lining up with three new ones (3, 2 and 1) so the grade widths would be the same as now.

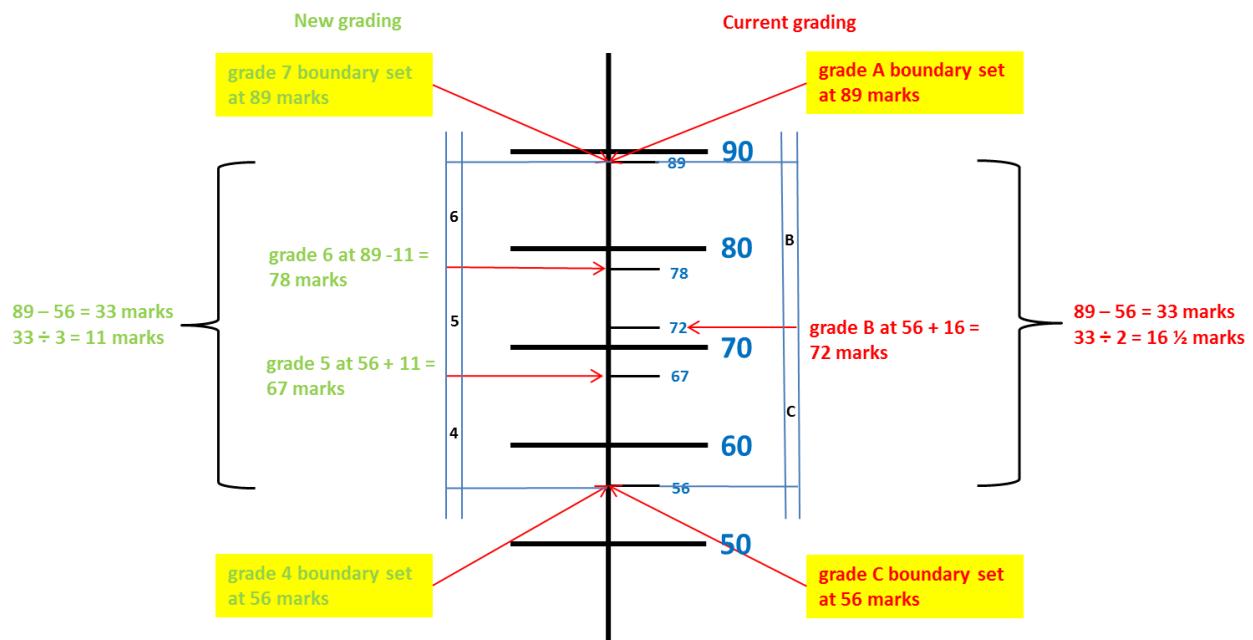
⁶ <https://www.gov.uk/government/statistics/gcse-and-equivalent-results-in-england-2012-to-2013-revised>

- 83. It would be technically possible to align the U/1 grade boundary with other points such as half way between the G/U and F/G boundaries.
- 84. This issue is a major feature of our equalities analysis (Annex B). It concludes by saying that “the potential negative impact of the proposed new grading arrangements on students who share particular protected characteristics would be likely to be greater if the new grade 1 was aligned to the bottom of grade F than if it was aligned to the bottom of grade G. If the alignment were to the bottom of current grade F, performance that would currently result in the award of a GCSE, albeit at the lowest grade, would be unclassified. Although a G grade might not be widely valued, for some students performance at this level is a true achievement. “
- 85. There are difficulties working with statistical predictions at the extremes of the mark range where relatively few candidates are located on each mark. We would want to ensure that using the U/1 boundary as an alignment point between the current and new grading scales does not undermine the comparability of grade 1, grade 2 or, in particular, grade 3 standards in a subject between exam boards. We are confident though that an improved awarding process, possibly involving the use of interboard screening data before awards are finalised, will deal with this problem. Further technical work will be carried out well ahead of summer 2017 to decide how the awarding process can best produce the intended outcome.
- 86. We therefore recommend that predictions be used in the summer 2017 awards to ensure that in each subject there is statistical alignment between the new grade U/1 boundary and the present grade G/U boundary.

Setting the standard for other grades

- 87. We have also considered how grade boundaries should be set for those grades where a statistical prediction was not to be used.
- 88. One set of models used predetermined (equally-spaced) grade boundary marks between the fixed points, and another used predetermined (equal) cumulative percentages of candidates in grades between the fixed points. Using interpolation to calculate boundaries arithmetically is a feature of the present awarding arrangements for GCSEs.
- 89. In the right hand side of the diagram below, in the current system grade C (the C/D boundary) is set statistically in this example at 56 marks and grade A is set statistically at 89 marks. Grade B is then set arithmetically as follows. The interval between 89 and 56 marks is 33 marks. 33 marks divided by 2 is $16\frac{1}{2}$ marks. So grade B is set at $56+16 = 72$ marks. Grade C is 16 marks wide, grade B 17 marks wide.

90. In the left hand side of the diagram, the boundaries for new grades 4 and 7 are set at the same marks as the C and A boundaries would have been. Grades 5 and 6 are then set arithmetically as follows. The interval between 89 and 56 marks is 33 marks. 33 marks divided by 3 is 11 marks. So grade 5 is set at $56+11=67$ marks and grade 6 is set at $89-11=78$ marks. Grades 4, 5 and 6 are each 11 marks wide.



91. Using predetermined (equal) cumulative percentages of candidates in grades between fixed points could lead to boundaries being set where there are few marks between them. That raises concerns about increased grade misclassification.
92. We therefore recommend that in the summer 2017 awards grade boundaries that are not set using statistical rules are set arithmetically.

Other issues

Improving awarding

93. We commissioned Cambridge Assessment to carry out a thorough technical evaluation of the relationship between GCSE results and prior attainment at Key Stage 2 (KS2) and we have published⁷ the report. It concluded that “from the various analyses carried out in this work to evaluate and improve the generation of predictions, no evidence has emerged to suggest there is anything inappropriate in the current methodology. In general, the evidence...is supportive of the way in which KS2 data is used.” The report did identify some

⁷*Analysis of use of Key Stage 2 data in GCSE predictions* available at <http://ofqual.gov.uk/standards/summer-2014-exams/>

minor areas where the current process could be improved and these developments will form the basis for discussions with the exam boards well ahead of the 2017 awards.

94. In the section above on awarding grade 1 there is mention of an idea to improve the awarding process using interboard screening of results data in each subject before awards are finalised. Such screening would support improved comparability of standards between boards at all grades, not just grade 1. This proposal will be explored further with the exam boards in the coming months.
95. At its meeting on 4 July, Ofqual's Standards Advisory Group commented on the approach we should use to set grade standards in the first year. Members strongly supported the need for Ofqual's procedures for the awarding process in summer 2017 to be primarily based on statistical predictions but to be flexible enough to be able to accommodate any incongruities. Work will be carried out ahead of the first awards to set criteria for identifying how such incongruities might be recognised and to identify potential mitigation measures.

The national reference tests

96. In our consultation we proposed that the national reference tests should be designed so that Ofqual can identify changes in national cohort performance that could be reflected when exam boards award new GCSEs. 49% of respondents agreed with the proposition, 28% disagreed and 23% did not know.
97. The consultation proposals about the national reference tests were only in outline. Since that time we have made plain in the draft ITT document that details the design and implementation of the test. In this we say that the purpose of the national reference tests is to provide evidence for Ofqual on changes in performance standards over time in GCSE English language and mathematics in England at the end of Key Stage 4.
98. We will undertake a trial of the tests in early 2016, providing some data on the performance of students taking current GCSEs. The first full tests will be held in early 2017 and we will use the GCSE awarding in English language and mathematics in the summer of 2017 to establish the equivalent performance standards in the national reference tests. It will therefore be in 2018, at the earliest, that the outcomes from the national reference tests could influence the awarding of GCSEs.
99. Ofqual will issue the ITT to prospective suppliers in September with the aim of awarding the contract by the end of 2014, subject to Board approval at that time.

Tiered examinations in mathematics

100. Although raised in previous consultations rather than this one, where examinations have tiered papers the awarding arrangements will have to be modified to ensure the appropriateness of the awards. Of the three GCSE subjects being awarded for the first time in summer 2017, only mathematics uses tiered papers.
101. In mathematics grades 4 and 5 are available through both tiers. Given the importance the new arrangements attach to grade 4, the prime aim when awarding these overlap grades should be the alignment of the new grade 3/4 boundary and the present grade C/D boundary using statistical predictions at subject level. Data from test equating on common items will contribute to the decisions to be taken about the location of the 3/4 and 4/5 boundaries on each tier so that grade standards are comparable across tiers.

Conditions of recognition

102. To implement the Board's decisions we will develop changes to our regulatory framework – probably new general conditions of recognition and statutory guidance. The consultation on these changes will be technical and targeted primarily at exam boards.

ANNEXES LIST:

- Annex A Analysis of consultation responses, YouGov
- Annex B Equality analysis
- Annex C Modelling using mark distributions
- Annex D Awarding grade 9: Modelling the 20% rule and the 50% rule
- Annex E Awarding grade 9: Modelling 5%, 10%, 15% and 20% rules



What the world thinks

Setting Grade Standards Consultation

Analysis of consultation responses

By

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YouGov

Ofqual/14/5496

September 2014



This report has been commissioned by the Office of Qualifications and Examinations Regulation.

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Executive Summary

In spring 2014 Ofqual undertook a consultation on ‘Setting the Grade Standards of new GCSEs’. This consultation focussed on the approach to setting grade standards within the first year for new GCSEs, specifically in English literature, English language and mathematics. The consultation ran from 3 April to 30th June and a total of 226 individuals and organisations responded.

Simultaneously between the 3rd and 18th June 2014, Ofqual held stakeholder events to capture feedback. An Ofqual team visited cities in six regions: Manchester, London, Exeter, Newcastle, Birmingham and Cambridge. A total of 134 delegates attended these events which were designed to stimulate debate and support two live consultations on: ‘Setting the Grade Standards of the new GCSEs in England’ and ‘Completing GCSE and A level Reform’. Attendees were encouraged to respond to the consultations.

The key findings from the consultation have been highlighted below.

Most individual respondents preferred criterion referencing (approach b), most organisational responses preferred the use of statistical information (approach a).

One in two (50%) respondents ranked criterion referencing (approach b) first compared with four out of ten (42%) who ranked an approach using statistical information (approach a) first and one in ten (8%) who ranked norm referencing (approach c) first. Among personal responses, the most preferred approach was criterion referencing (approach b) with six out of ten (56%) ranking this first. However among organisational responses, it was the use of statistical information (approach a) with seven out of ten (71%) ranking this first.

Despite criterion referencing being the most preferred approach, respondents drew out issues with each of the propositions. The main concern with using statistical information (approach a) was around the grades being predetermined. It was thought criterion referencing (approach c) would be difficult to administer and norm referencing (approach c) was considered unfair towards students.

There was overall agreement with the proposition that in the first year the standard for a grade 4 should be set so that the proportion of students who would previously have been expected to be awarded at least a grade C will be awarded at least a grade 4.

Just under seven in ten (68%) agreed with the proposition, three in ten (27%) disagreed and 4% had no opinion or did not know. Among those who agreed, the main themes coming across through the supplementary open comments were that it enabled a clear link between the two grading systems and it was a fair and sensible

approach. Those who disagreed argued that grades should not be manipulated, they should be based on specific grade descriptions and the knowledge the student has.

The majority of respondents said they *would* find it helpful if other points of reference between current and new grades were set and communicated before the first awards are made.

Nine in ten (89%) reported that they would find reference points helpful while one in ten (11%) reported they would not. The key reasons for why stakeholders wanted a reference point between new and current grades were because it would enable teachers to know what to expect and also what their students should expect. Having a reference point would provide clarity and understanding as well as the ability to compare. Reasons for not wanting a reference point were down to stakeholders believing this is a new system and that should therefore not need to be linked to the old system.

Respondents were more likely to *disagree* than agree with the proposition that the standard of performance for a grade 5 should align to the expected standard for similar qualifications or exams taken in high performing countries.

Just over one in three (35%) respondents agreed with the proposition of grade 5 aligning with international standards, one in two (49%) disagreed and one in six (17%) had no opinion or did not know. Respondents who agreed with this proposition felt that while it was a good idea it would be difficult to implement. Those who disagreed felt that systems across countries are to some extent incomparable and that the grades should only align with countries that have similar systems.

The majority of respondents agreed that setting the grade boundary for grade 7 so that, all things being equal, the same proportion of students who would previously have been awarded a grade A or above are awarded a grade 7 or above in the first year was appropriate and useful.

Two in three (68%) respondents said it would be appropriate and one in three (32%) said it would not. Seven in ten (70%) said it would be useful and three in ten (30%) said it would not.

The majority of respondents said setting the grade boundary for a grade 9 so that half of the proportion of students who would previously have been awarded an A* are awarded a grade 9 in the first year was appropriate and useful.

Six in ten (58%) respondents said it was appropriate, while four in ten (42%) said it was not. Just under six in ten (56%) said it was useful and over four in ten (44%) said it was not.

There was *no clear consensus* in terms of appropriateness and usefulness of setting the grade boundary so that the same proportion of students who would have achieved grades G and F are awarded a grade 1 in the first year.

Just over one in two reported the proposition as being appropriate (52%) and useful (50%), whilst just under one in two reported it as not being appropriate (48%) and useful (50%).

There was *no clear consensus* among respondents as to whether or not they would find it helpful to have additional or alternative points of reference between the current and new grades.

One in two (53%) respondents reported this would be useful while a further one in two (47%) reported that it would not. Supplementary comments on this proposition were around the need to have additional mapping of the how the new grades relate to old grades and that there needs to be '*clarity*' in the system so that new grades can be compared to the old grades.

The majority of respondents felt the current boundary between a grade G and an Unclassified outcome is *meaningful*.

Two in three (64%) reported the current boundary as being meaningful while one in three (36%) reported it was not. Those who felt the boundary was meaningful argued that grade G represents progress or a genuine achievement to some students. Those who felt the boundary was not meaningful argued that a grade G is meaningless or represents a fail.

The majority of respondents reported that the grade 1 boundary should align with the *current G*.

Two in three (65%) reported that the grade 1 boundary should align with the current G while one in three (35%) indicated that the grade 1 boundary should align with the current grade F.

The majority of respondents agreed with the proposition that the national reference test should be designed so that exam boards can use its outcomes to identify changes in the performance of the national cohort that could be reflected in the grades of new GCSEs awarded.

Two in four (49%) agreed with the proposition, three out of ten (28%) disagreed and a further one in four (23%) did not know. Respondents who agreed with the proposition highlighted that the proposal for the design of the national reference test was a fair, sensible approach that would help to recognise changes in standards. Although agreement was offered, comments stated that this was ‘agreement in principle’ or ‘agreement with the concept’, but expressed concerns over the practicalities of implementing the proposals. Where respondents disagreed, the key theme that emerged was the impact that adding a further test may have on students’ stress and performance.

Consultation context and overview

Introduction

103. General Certificates of Secondary Education (GCSEs) are being comprehensively reformed in England. New GCSEs are now being developed with priority being given to English language, English literature and mathematics. These will be ready for first teaching in September 2015 and awarded for the first time in summer 2017. More demanding subject content for these qualifications has been published and new assessments are being designed.
104. The focus of the Ofqual consultation is on the approach to setting grade standards for new GCSEs in England in summer 2017, specifically English language, English literature and mathematics.
105. The Secretary of State for Education has set out his intentions that new GCSEs in England should remain accessible, with good teaching, to the same proportion of students who currently take them and there must be an increase in demand at the level of what is widely considered to be a pass (currently indicated by grade C) to reflect that of high-performing jurisdictions. In addition, the Secretary of State also stated there is a strong case for the new GCSEs to have a new grading system to "reflect the step change in expectations for pupils".
106. On the 1st November 2013 Ofqual confirmed some of the key features of new GCSEs in English literature, English language and mathematics to be introduced in England for first teaching from September 2015. This included a new grading scale that uses the numbers 9-1 to report levels of performance, with 9 being the top level. As the new grading system has already been determined, this consultation did not ask stakeholders for their views on the setting of a new grade system.
107. Ofqual are now at the stage where they have a proposed approach for (a) setting and maintaining performance standards for new GCSEs and (b) how the grading system will work. The purpose of the setting grade standards of reformed GCSEs consultation was to seek the views of the relevant stakeholder groups (e.g. students, parents, employers, higher and further education, school leaders and teachers) about Ofqual's proposals.
108. Ofqual commissioned the independent market research company YouGov to conduct the analysis of the responses received to the consultation. The analysis will be used to inform Ofqual's policy decisions on a framework for setting grade standards of reformed GCSEs. It will need to be comprehensive to support a robust decision-making process by Ofqual.

Consultation method and respondent profile

109. Respondents were encouraged to submit their response to the consultation questions online or to submit via hard copy/email. In total 189 individuals and organisations responded to the online consultation, together with a further 27 MS Word versions of the online survey received by Ofqual. Each of the 27 MS Word versions of the online survey were entered into a final dataset for analysis, giving a final response of 216.
110. A further 10 written submissions were received by Ofqual which did not conform to the online structure but have been reviewed and included in the text analysis.
111. The opening section of the consultation asked respondents to categorise themselves as to whether they were providing an ‘official response from the organisation you represent’ or whether the response was a ‘personal view’. Following this categorisation, respondents were asked to classify themselves further using several questions on their personal and organisational characteristics.
112. This categorisation was used as the basis of sub-groups by which the responses to the consultation have been analysed. The final decision on the make-up of these classifications was made by Ofqual and the table overleaf shows how the responses have been categorised for analysis purposes.

Figure 1: Responses by stakeholder categories (exclusive of hard copy written responses)

Respondent type	Number of responses	Percentage
Personal responses	168	78%
Teacher	144	
Parent/student/carer/carer	9	
Other	11	
Organisational responses	48	22%
Awarding organisation	9	
School representative body/union	9	
Subject association	7	
Local Authority	4	
School	19	
Total	216	

Please note that the individual sub groups for the personal responses do not add up to the total number as four respondents did not provide data for the sub groups.

113. Alongside the online consultation Ofqual held stakeholder events to capture feedback between the 3rd and 18th June 2014. An Ofqual team visited cities in six regions: Manchester, London, Exeter, Newcastle, Birmingham and Cambridge. A total of 134 delegates attended these events which were designed to stimulate debate and support two live consultations on: 'Setting the Grade Standards of the new GCSEs in England' and 'Completing GCSE and A level Reform'. Attendees were encouraged to respond to the consultations.

Guidance on analysis

114. The closed questions are presented in tables with the frequencies of responses against each answer. The tables use the respondent categorisation set out in figure 1 to present the findings cross-tabulated with respondent category.
115. As Figure 1 shows the number of respondents within some stakeholder categories are very low. Given this, it is potentially misleading in a consultation with this number of responses to display the results as percentages so simple frequency counts have been used and percentages only provided for the total sample.
116. Given the dominance of responses from teachers to the overall sample (66% of all responses) caution is also advised in interpreting the top line percentage sample figures. The analysis has been approached in a more qualitative way given the small number of respondents in each group. These views cannot be analysed or seen as representative of these groups as a whole.
117. The consultation included 10 closed questions which had invitations to explain why respondents answered the closed connected question in a particular way and one open ended question (Q9) which provided respondents with a free text box to answer the question. A full set of the consultation questions can be found in appendix B.
118. The open ended responses to all questions elicited varied responses, ranging from generalised comments about the propositions, to comments about specific grades etc. All comments were analysed in a very similar way, with each response read and the theme of the comments categorised but without formal coding. These responses were then analysed on a thematic basis by noting the themes of each response to highlight differences and trends in opinion between and within the respondent types.
119. The written submissions received outside of the online consultation were catalogued into a thematic grid and each response analysed for the key themes emerging from them. Often these written submissions were highly detailed. The purpose of this report is to summarise the strength of opinion received in response to the key consultation questions. The summary report cannot reflect every level of detail of these responses.

Consultation analysis

120. The main section of the report provides an analysis of the responses received to the online consultation and takes into account the views expressed via separate written submissions.
121. The report is structured around each question within the consultation and provides an analysis of the quantitative data broken down by each stakeholder category. Where relevant the report provides further explanation of these responses through an analysis of the qualitative responses received.

Question 1

122. Ofqual have considered three possible ways by which the standard for the new GCSEs could be set in the first year:
- a) An approach that uses statistical information to link the award of the new grades to current grades
 - b) An approach in which awarders judge students' work against descriptions of expected performance – criterion referencing
 - c) A norm referenced approach in which the proportion of each grade available to the cohort is pre-determined
123. Ofqual asked respondents to rank the three possible approaches, using 1 for their preferred approach and 3 for their least preferred approach.
124. **The most preferred approach overall by which the standard for the new GCSEs should be set was criterion referencing (approach b).**
125. One in two (50%) respondents ranked criterion referencing first compared with 42% who ranked an approach using statistical information (approach a) first and 8% who ranked norm referencing (approach c) first.
126. Among personal responses the preferred approach was criterion referencing (approach b) with 56% ranking this first. However among organisational responses it was the use of statistical information (approach a) with 71% ranking this first.
127. Criterion referencing was particularly preferred among teachers with 81 out of 140 reporting this. Among parents/ students and other personal responses there was not a defined preference with both groups equally selecting approach (a) (statistical information) and (b) (criterion referencing). Four out of the nine parents/ students and other personal responses who responded selected approach (a) and the same proportion selected approach (b).
128. Among the organisational responses, the most preferred approach reported was (a) with 34 out of 48 reporting this. An approach using statistical information (a) was clearly favoured by all groups with the exception of schools where nine out of 19 preferred a statistical approach (a) and nine preferred criterion referencing (b).

Figure 2: Summary of rankings for each approach (a, b and c)

	Ranked First			Ranked Second			Ranked Third		
	a	b	c	a	b	c	a	b	c
Personal responses	55	91	16	85	44	26	16	28	118
Teacher	46	81	13	74	36	24	15	24	102
Parent/student/carer	4	4	1	4	4	0	0	1	7
Other	4	4	1	4	3	2	1	2	6
Organisational responses	34	13	1	11	24	10	2	8	33
Awarding organisation	8	1	0	1	5	2	0	2	6
School representative body/union	8	1	0	1	6	1	0	1	7
Subject association	6	1	0	0	4	3	1	2	2
Local Authority	3	1	0	1	2	1	0	1	3
School	9	9	1	8	7	3	1	2	15
Total (n)	89	104	17	96	68	36	18	36	151
Total (%)	42%	50%	8%	48%	34%	18%	9%	18%	74%

129. Some respondents provided supplementary comments that explained reasons behind their decision-making.
130. Respondents who ranked approach (a) *first* said this was due to the approach being a **fair** and **sensible** way of setting standards.
- “It seems fairest to me.”
- Teacher, not on behalf of school (Head of German/ Sixth Form)
131. Others mentioned that this approach allowed **comparability** and **continuity** and would **support transition**.
- “Statistical information allows for variances in student performance year-on-year.”
- Teacher, not on behalf of school
- “There should be as much comparability between current GCSE and new GCSE grades as possible, and the statistical approach seems to ensure that this will happen.”
- Teacher, not on behalf of school (Head of Modern Languages)
132. It was also seen to be a more **understandable** approach with many **agreeing with Ofqual's** reasoning for approach (a) within the consultation.
- “We agree with the premise set out in paragraph 2.35 of the consultation that neither a criterion referenced nor a norm referenced approach would be suitable and that the current approach should be developed and adapted.”
- Organisational response (ASCL)
- “Option (a) is more likely to be understood at the time of the change by more of the people affected - students, parents, teachers, employers.”
- Teacher, not on behalf of school
- “It is important for employers, and educators who use GCSEs for selection reasons to be able to understand a clear link between the new grades and the older grade system.”
- Teacher, not on behalf of school (Curriculum Area Manager- A Levels)
133. Respondents who ranked option (b) *first* said this was due to the approach being a **fair** way of setting standards. It was also mentioned that this approach allowed **long term comparability, consistency** and **transparency**.

“Cohorts of young people will vary year on year, but the standard should remain the same. Therefore norm referencing is only fair in each separate year, whereas criterion referencing is fair across a longer period and therefore allows for comparisons across years and guarantees reliability of grades for HE and employers.”

School/ College

“I believe the system and standards need to be fair and consistent; not changing year on year to be fair to all students in any year by being judged against the same standards. Criterion referencing allows this to happen.”

Teacher, not on behalf of school (Head of English Department)

134. Others mentioned that the benefit of criterion referencing was that it kept **knowledge at the heart** and actually **measured what students can do**.

“Criterion referencing is fair to students and puts knowledge at the heart of what schools do. Norm referencing makes the main purpose of the exams rank ordering students. As teachers get better at preparing students for particular exams, they achieve better levels of knowledge and understanding but lower grades than students in previous years.”

Teacher, not on behalf of school (Head of Sixth Form and HE)

“Criterion referencing actually measures whether we have taught what it is that we purport to want to teach our children. Other approaches sort sheep from goats for political reasons.”

Teacher, not on behalf of school (Head of English Department)

135. Only 17 respondents ranked approach (c) as their *first* preferred choice. Analysis of comments highlight that the main reason for choosing this as their preferred approach was due to it **avoiding grade inflation**:

“Without norm referencing we'll be under pressure to produce inflating grades again.”

Personal response

136. Figures 3, 4 and 5 overleaf show the number of respondents who ranked each approach first, second and third.

Figure 3: Respondents who ranked approach a, b and c FIRST

	Approach a – Statistical information	Approach b – Criterion referencing	Approach c – Norm referencing	Total
Personal responses	55	91	16	162
Teacher	46	81	13	140
Parent/student/carer	4	4	1	9
Other	4	4	1	9
Organisational responses	34	13	1	48
Awarding organisation	8	1	0	9
School representative body/union	8	1	0	9
Subject association	6	1	0	7
Local Authority	3	1	0	4
School	9	9	1	19
Total (n)	89	104	17	210
Total %	42%	50%	8%	

Figure 4: Respondents who ranked approach a, b and c SECOND

	Approach a – Statistical information	Approach b – Criterion referencing	Approach c – Norm referencing	Total
Personal responses	85	44	26	155
Teacher	74	36	24	134
Parent/student/carer	4	4	0	8
Other	4	3	2	9
Organisational responses	11	24	10	45
Awarding organisation	1	5	2	8
School representative body/union	1	6	1	8
Subject association	0	4	3	7
Local Authority	1	2	1	4
School	8	7	3	18
Total (n)	96	68	36	200
Total %	48%	34%	18%	

Figure 5: Respondents who ranked approach a, b and c THIRD

	Approach a – Statistical information	Approach b – Criterion referencing	Approach c – Norm referencing	Total
Personal responses	16	28	118	162
Teacher	15	24	102	141
Parent/student/carer	0	1	7	8
Other	1	2	6	9
Organisational responses	2	8	33	43
Awarding organisation	0	2	6	8
School representative body/union	0	1	7	8
Subject association	1	2	2	5
Local Authority	0	1	3	4
School	1	2	15	18
Total (n)	18	36	151	205
Total %	9%	18%	74%	

137. Despite criterion referencing being the most preferred approach, respondents drew out issues with each of the propositions. The main concern with using **statistical information** approach (a) was around the grades being **predetermined**. It was thought **criterion referencing** approach (b) would be **difficult to administer** and **norm referencing** approach (c) was considered **unfair** towards students.

“(a) at least leaves some kind of room for overall improvement (or decline). (b) would be very difficult in practice. (c) is unfair to candidates.”

Teacher, not on behalf of school

“Criterion referencing is too restrictive. Norm referencing is too limiting.”

Teacher, not on behalf of school

“Option c is unfair. You should set the standard and if students reach it, they should be awarded the grade. Otherwise there is no consistency from year to year.”

Teacher, not on behalf of school

“There should be a stronger emphasis on fairness to individual students rather than ensuring that national statistics are comparable year on year. The approach is currently not necessarily fair at all levels of ability and across all subjects.”

Organisational response (ASCL)

Question 2

138. Ofqual proposed that in the first year the standard for a grade 4 should be set so that the proportion of students who would previously have been expected to be awarded at least a grade C in a subject will be awarded at least a grade 4 in the subject. There was overall *agreement* with the proposition.

139. Just under seven in ten (68%) respondents agreed with this proposition, three in ten (27%) disagreed and four per cent had no opinion or did not know.

Figure 6: To what extent do you agree or disagree with this proposition? (Q2)

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know/no opinion	Total
Personal responses	29	80	36	13	7	165
Teacher	26	67	33	10	6	142
Parent/student/carer	1	5	1	2	0	9
Other	1	7	1	0	1	10
Organisational responses	11	25	7	2	2	47
Awarding organisation	4	3	1	0	1	9
School representative body/union	2	6	1	0	0	9
Subject association	1	4	1	0	0	6
Local Authority	1	2	0	0	1	4
School	3	10	4	2	0	19
Total (n)	40	105	43	15	9	212
Total %	19%	50%	20%	7%	4%	

140. Among those who provided personal responses, two in three (66%) agreed, just under one in three (30%) disagreed and four per cent had no opinion or did not know. For organisational responses just under four in five (77%) agreed, one in five (19%) disagreed and four per cent had no opinion or did not know.

141. Some respondents provided supplementary comments that explained reasons for their particular response. Among those who agreed with the proposition the main reasons were because it enabled **a clear link** between the two different grading systems and because it was a **fair** and **sensible** approach which would provide a **reference point**:

“I don't like the new numbering system as it is confusing. However it seems reasonable to link a Grade C with a Grade 4.”

Teacher, not on behalf of school

“This will allow educational establishments and employers to have a reference point for standards.”

Teacher, not on behalf of school (Assistant Head Teacher)

“...the NASUWT has no objection in principle to the use of a numerical grading system in which grade 4 is benchmarked against current grade C.”

Union (NASUWT)

“ACME broadly supports the proposal that the new grade 4 is aligned to performance at grade C in earlier years. ACME is also content that the standard of performance required for a grade 5 should be at about a half to two-thirds of a grade higher than that required for a current grade C.”

Organisational response (Advisory Committee on Mathematics Education)

142. Others who agreed with the proposition said it was good because **it allowed additional grades above a C** and because it ensures there will **not be a large grade shift** during the transition:

“This will assist teachers in their professional judgments about students' predicted achievements and assists other users of qualifications in comparing achievements between years. Most importantly it will allow greater differentiation between the highest achieving candidates.”

Awarding Organisation (IFS University College)

“Means there will not be a huge grade shift during the transition period but if this is not pursued, it could lead to grade dips or increases in subsequent years.”

Teacher, not on behalf of school

143. Those who disagreed argued that grades should **not be manipulated**, they should be based on **specific grade descriptions** and the **knowledge the student has**.

“Again grades should be set via the grade specification.”

Teacher, not on behalf of school

“I certainly agree that the students should suffer no ill effects from this latest overhaul. However, I have some reservations as it seems to be that level 5 will begin to be seen as the new 'pass' and therefore a level 4 could adversely affect students from the first cohort in latter years.”

Teacher, not on behalf of school

“What does a grade 4 represent? How can we tell if it's the same as C? Again this just seems a manipulation of statistics.”

Teacher, not on behalf of school

144. It was also suggested by respondents that the **equivalent of a grade C should be grade 5 rather than grade 4** and that the **loss of a grade at the lower end** would **disadvantage** some students.

“I think it should be a 5.”

Other - including general public (Head of Learner Administration)

“I understand the aim of differentiating for higher ability candidates but they account for a small percentage of candidates. This will be at the expense of lower ability candidates who will now be bunched into grades 1-3. I see students leaving education with grades 2, 3 being largely ignored by employers and grade 1 people will be unemployable. Setting C = 5 would differentiate more below.”

Teacher, not on behalf of school (Assistant Vice-Principal)

Question 3

145. Ofqual asked their stakeholders whether they would find it helpful if other points of reference between current and new grades were set and communicated before the first awards are made. The **majority of respondents said they would find it helpful.**
146. Nine in ten (89%) reported that they would find reference points helpful while one in ten (11%) reported they would not.

Figure: Would you find it helpful if other points of reference between current and new grades were set and communicated before the first awards are made? (Q3)

	Yes	No	Total
Personal responses	144	18	162
Teacher	127	13	140
Parent/student/carer	7	1	8
Other	6	4	10
Organisational responses	42	6	48
Awarding organisation	6	3	9
School representative body/union	8	1	9
Subject association	7	0	7
Local Authority	4	0	4
School	17	2	19
Total (n)	186	24	210
Total %	89%	11%	

147. Among those who provided personal responses, nine in ten (89%) said they would find reference points helpful and one in ten (11%) said they would not. For organisational responses, nine in ten (88%) said they would find reference points helpful and just over one in ten (13%) said they would not.
148. Personal and organisational respondent types were all far more likely to say yes they would find reference points helpful than no they would not, particularly teachers where 127 out of 140 said yes.
149. The key reasons why stakeholders wanted a reference point between new and current grades was because it would enable **teachers to know what to expect** and also what their students should expect. Having a reference point would provide **clarity** and **understanding** as well as the ability to **compare**.

“As a teacher I need to know what my pupils should expect to get.”

Teacher, not on behalf of school (Assistant Head)

“At times of big change, more information is always better than less. Most teachers in the profession are comfortable and aware of the current system, therefore using this as a point of reference will no doubt enable teachers to understand the new system better.”

Teacher, not on behalf of school

“Comparability between the old and new qualifications is important.”

Teacher, not on behalf of school (Mathematics Coach)

150. Other reasons given for why stakeholders wanted a reference point between new and current grades were because further **education/employers** need to be able to make **comparisons** between the two systems, **students** need to know what they are **working towards** and the need for **transparency/fairness**.

“Students and teachers need to know exactly what they are working towards. We have become objective led.”

Teacher, not on behalf of school

“For the same reasons as above mainly: so that employers etc know what they mean, and teachers have some idea of how best to prepare students.”

Teacher, not on behalf of school (Assistant Head Teacher)

“Transparency is very important for all stakeholders to enable them to judge the value of the award and the standards set to compare with other students who qualify before and after.”

Teacher, not on behalf of school

151. The main reason for why some stakeholders did not want a reference point between new and current grades was because this is a **new system** and therefore should **not need to be linked** to the **old system**.

“It's new content so it makes sense that it is a completely new system to aid transparency.”

Teacher, not on behalf of school (Head of English)

“If the new exam is really new then we should not make references to the old one when awarding the grades. The cross reference between the two can only appear in the grade descriptors.”

Teacher, not on behalf of school

Question 4

152. Ofqual have proposed that the standard of performance for a grade 5 should align to the expected standard for similar qualifications or exams taken in high performing countries. There was overall *disagreement* with the proposition.
153. One in two (49%) disagreed compared with one in three (35%) who agreed. One in six (17%) had no opinion or did not know.
154. Among those who provided personal responses one in three (35%) agreed, one in two (50%) disagreed and one in six (16%) had no opinion or did not know. For organisational responses one in three (35%) agreed, just under one in two (46%) disagreed and one in five (20%) had no opinion or did not know.

Figure 7: To what extent do you agree or disagree with this proposition? (Q4)

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know/no opinion	Total
Personal responses	11	46	44	38	26	165
Teacher	8	40	41	32	21	142
Parent/student/carer	2	3	0	4	0	9
Other	1	2	2	1	4	10
Organisational responses	2	14	15	6	9	46
Awarding organisation	0	4	4	0	1	9
School representative body/union	0	4	3	0	1	8
Subject association	0	1	2	1	3	7
Local Authority	1	0	1	0	2	4
School	1	5	5	5	2	18
Total (n)	13	60	59	44	35	211
Total %	6%	28%	28%	21%	17%	

155. There was no consensus among the awarding organisations with four out of nine agreeing and four disagreeing.

156. Respondents who agreed with this proposition felt that while **a good idea** it would be **difficult to implement**. A small number also felt the proposition was **fair and reasonable**.

“This is extremely useful provided that the international standard is valid. However, other jurisdictions have different examinations and different standards for a ‘pass’ grade. Therefore it is difficult to match against a single international standard for a pass grade at Grade 5”

Local Authority (Buckinghamshire County Council)

“I agree with the principle. Although the reality is other countries have a variety of different approaches to education, there is no mention of how this could be comparable and how this can be measured over time?”

Teacher, not on behalf of school

“It seems a good idea to compare our performance internationally. However, 'high performing countries' could change over a number of years - will this alignment be reconsidered after a set time period and adjusted? School systems also vary, for example how many years students have been in secondary education, although presumably this would be taken into account. A step in the right direction though perhaps would encourage other countries into international discussion on education.”

Teacher, not on behalf of school (Music Teacher)

157. Respondents who disagreed with this proposition felt that systems across countries are to some extent **incomparable** and that the grades should only align with countries that have **similar systems to the UK**.

“International comparisons are fraught with difficulty. It would be necessary to know far more about how such comparisons will be made, and about the reliability of the underlying measures, before it would be possible to support this. Ofqual should clarify how it intends to use PISA or other international data to set standards in GCSEs. If comparisons are to be made between England and other countries, the aim should be to understand underlying differences between countries, and to explore the data to reveal

these. The existence of multiple ways in which countries differ should be reflected in comparisons.”

Organisational Response (Royal Statistical Society)

“This question assumes that there is an agreed international standard which, as far as we are aware, does not exist. The question also assumes that there is a set group of high performing countries. As we have seen in recent years countries move up and down in international tables so it is by no means clear which countries we should compare ourselves with. If grade 5 is to be the standard expected of the majority of students in the UK (a challenging and ambitious target) then we should say so and we will also have to accept and be able to evidence improvement in the system. Otherwise it will be much harder for schools to encourage their students to be ambitious. We should not be trying to set standards to align with countries that may have been performing well in the past. This new qualification should be about the future.”

Organisational Response (ASCL)

158. Other things mentioned by respondents who disagreed were that the UK should have its own system and **should not focus on being compared with other countries** but rather focus just on what is required within the UK.

“The system needs to be specific to the UK and not create a ‘factory production’ of results. International student profiles differ and this makes it unclear what schools will be measured on.”

Organisational Response

“We should not worry about other so-called high performing countries instead we should build an assessment system for our country and our educational needs.”

Teacher, not on behalf of school

159. Responses from those who said they were unsure or had no opinion were mainly down to **not understanding how such a comparison would be made.**

“I am still uncertain of how easy this will be to measure as this qualification is quite different to what they do in many other countries.”

Teacher, not on behalf of school (Deputy Head of Mathematics)

Question 5

160. Ofqual are considering at which other points they should make a link between the new and current grades. The first possibility is:
- a) Setting the grade boundary for grade 7 so that, all things being equal, the same proportion of students who would previously have been awarded a grade A or above are awarded a grade 7 or above in the first year
161. Ofqual asked their stakeholders how appropriate and useful they would consider each of these links to be. The majority of respondents agreed that possibility (a) would be appropriate and useful.

Figure 8: Would you consider this link to be appropriate and useful? (Q5a)

	Appropriate		Total	Useful		Total
	Yes	No		Yes	No	
Personal responses	107	55	162	110	50	160
Teacher	92	48	140	96	43	139
Parent/student/carer	8	1	9	7	1	8
Other	6	3	9	5	4	9
Organisational responses	35	12	47	36	12	48
Awarding organisation	7	2	9	7	2	9
School representative body/union	7	1	8	7	2	9
Subject association	5	2	7	5	2	7
Local Authority	3	1	4	3	1	4
School	13	6	19	14	5	19
Total (n)	142	67	209	146	62	208
Total (%)	68%	32%		70%	30%	

162. Just under seven in ten (68%) respondents said it would be *appropriate* and three in ten (32%) said it would not. Seven in ten (70%) said it would be *useful* and three in ten (30%) said it would not.
163. By respondent group, two in three (66%) personal responses and three in four (74%) organisational responses said possibility a) was appropriate. One in three (34%) personal responses and one in four (26%) organisational responses said possibility (a) was not appropriate.
164. In terms of usefulness, seven in ten (69%) personal responses and three in four (75%) organisational responses said possibility a) was useful. Three in ten (31%) personal responses and one in four (25%) organisational responses said it was not.
165. Those who responded on a personal basis were consistent in their view that (a) is appropriate and useful, particularly among parents/ students.
166. The outlook is the same among organisational views with the strongest support coming from school representative bodies/ unions and local authorities. Awarding organisations also believe possibility (a) is appropriate and useful with seven out of the nine awarding organisations reporting this.
167. There were very few comments around possibility (a) but in general these were fairly positive.

“The new grade system should be comparable longitudinally in quantitative terms within subjects, and should be easily comprehensible to those using the grade system. Matching the new grade 7 to the old A grade would seem to help toward this.’

Subject association (Royal Statistical Society)

“ACME is broadly content with the suggestion that the new grade 7 should be equated with existing grade A. However, ACME is clear that introducing a structure with two grades that reflect performance above that of the current grade A involves some risk. This risk relates to the difficulty of guaranteeing the validity and reliability of the new grades, given that there are doubts about the validity of the top grades in GCSE Mathematics at present.”

Organisational Response (ACME)

168. The next possibility proposed was **(b) Setting the grade boundary for a grade 9 so that half of the proportion of students who would previously have been awarded an A* are awarded a grade 9 in the first year.**

169. Almost six in ten (58%) of respondents said possibility (b) was appropriate while four in ten (42%) said it was not. Just under six in ten (56%) said it was useful and over four in ten (44%) said it was not.

Figure 9: Would you consider this link to be appropriate and useful? (Q5b)

	Appropriate		Total	Useful		Total
	Yes	No		Yes	No	
Personal responses	91	74	165	85	77	162
Teacher	78	64	142	71	69	140
Parent/student/carer	7	2	9	8	0	8
Other	5	5	10	4	6	10
Organisational responses	30	15	45	31	14	45
Awarding organisation	5	4	9	5	4	9
School representative body/union	7	1	8	7	2	9
Subject association	4	2	6	4	1	5
Local Authority	2	1	3	2	1	3
School	12	7	19	13	6	19
Total (n)	121	89	210	116	91	207
Total (%)	58%	42%		56%	44%	

170. By respondents group, over one in two (55%) personal responses and two in three (67%) organisational responses said possibility b) was appropriate. Just under one in two (45%) personal responses and one in three (33%) organisational responses said possibility b) was not appropriate.

171. In terms of usefulness, one in two (52%) personal responses and seven in ten (69%) organisational responses said possibility b) was useful. Just under one in

two (48%) personal responses and one in three (31%) organisational responses said it was not.

172. Both teachers and parents were more likely to report possibility (b) as appropriate, however the opinions of the ‘other’ group were split with five out of 10 saying it was appropriate and the remaining five out of 10 saying it was not.
173. While all eight parents/students/carers reported possibility (b) as useful, there was not a clear consensus among teachers and the other group - 71 out of 140 teachers said it was useful and 69 said it was not, similarly four out of 10 other responses said it was useful and six said it was not.
174. Very few respondents commented on possibility (b). Among those that did the key concerns raised were that **setting such a high limit would restrict achievement of some students** and would be **unfair**; the impact the proposition has on **grade 8**; and that **grade 9** should be for **exceptional results**.

“...It is entirely plausible that setting such a limit would seriously limit achievement of some students and would have a disproportionate effect on state schools.”

Teacher, not on behalf of school (Head of Mathematics)

“The limit to a grade 9 is unfair for candidates who would have achieved an A* previously.”

Teacher, not on behalf of school

“I don't think that for (b) a straight 50/50 split is inappropriate. Grade 9 should be for exceptional results, otherwise it will go the same way that A* went after its introduction. How many are exceptional? I've no idea but based on an average school cohort sitting my subject's exam I would expect a grade 9 to be achieved by only 2 or 3 out of an entry of 60+.”

Teacher, not on behalf of school

175. Other points mentioned by individuals included why the grade needs to be split and that grade 1 should be the highest.
176. The final possibility proposed was **(c) Setting the grade boundary so that the same proportion of students who would have achieved grades G and F are awarded a grade 1 in the first year.**

177. There was no clear consensus in terms of appropriateness and usefulness of possibility (c) with one in two reporting it as appropriate (52%) and useful (50%) and a further one in two reporting it as not (48% and 50% respectively).

Figure 10: Would you consider this link to be appropriate and useful? (Q5c)

	Appropriate		Total	Useful		Total
	Yes	No		Yes	No	
Personal responses	82	79	161	78	81	159
Teacher	73	67	140	68	70	138
Parent/student/carer	5	4	9	6	3	9
Other	3	5	8	3	5	8
Organisational responses	25	19	44	25	20	45
Awarding organisation	5	4	9	5	4	9
School representative body/union	3	4	7	3	5	8
Subject association	2	3	5	2	3	5
Local Authority	3	1	4	2	2	4
School	12	7	19	13	6	19
Total (n)	107	98	205	103	101	204
Total (%)	52%	48%		50%	50%	

178. Similar to the overall response, there was no consensus among respondent groups for both personal and organisational responses with half agreeing and half disagreeing.

179. Among the eight school representatives/ unions that responded, five said possibility (c) was not useful compared with only three who said it was. Similarly

other personal responses were more likely to report possibility (c) as not appropriate (5 compared with 3).

180. The key issue raised by respondents around combining grade G and F was the injustice this would place on lower attaining pupils – it was highlighted that many pupils work hard to achieve an F rather than a G and combining the two would be demotivating and unfair towards less able candidates.

“For some students to gain a grade F rather than a grade G is a real achievement and takes two years’ worth of work to achieve, what is the motivation for these students to continue to work.”

Teacher, not on behalf of school (Assistant Head of Sixth Form)

“I think it is wrong that these are not two separate grades. It is unfair that students cannot be seen to progress when they previously would have done. It will be demotivating and will lead to a drop in standards at the bottom end. It is wrong to discriminate these students when those at the top end are split more than they have been previously.”

Teacher, not on behalf of school (Deputy Head of Mathematics)

“The proposed system does not help to reward students who are working at the low end of the attainment scale, neither does the chosen end of course examination benefit or encourage them.”

Teacher, not on behalf of school (Headteacher)

181. At the other end of the spectrum respondents mentioned that combining both these grades would be a positive thing as so few achieve them.

“Such small numbers achieving these grades means there is not much need for differentiation. The difference between F and G is not of huge significance when it comes to progression.”

Teacher, not on behalf of school (Director of Curriculum)

“The numbers of students getting F and G are small and show very little understanding. Therefore combining these grades makes sense.”

Teacher, not on behalf of school

Question 6:

182. Ofqual asked their stakeholders whether they would find it helpful to have any additional or alternative points of reference between the current and the new grades. There was *no clear consensus* among respondents.
183. Respondents were fairly evenly split as to whether they would find it helpful to have additional or alternative points of reference between the current and the new grades. One in two (53%) of respondents thought this would be useful with a further one in two (47%) reporting that it would not.

Figure 11: Would you find it helpful to have any additional or alternative points of reference between the current and the new grades? (Q6)

	Yes	No	Total
Personal responses	85	74	159
Teacher	75	63	138
Parent/student/carer	4	4	8
Other	3	6	9
Organisational responses	22	22	44
Awarding organisation	3	6	9
School representative body/union	3	5	8
Subject association	4	2	6
Local Authority	3	0	3
School	9	9	18
Total (n)	107	96	203
Total %	53%	47%	

184. This was a consistent view across personal and organisational responses, with around one in two in both groups reporting that they would find it helpful to have additional or alternative points of reference between the current and the new grades.
185. From the organisational responses, awarding organisations were least supportive with six out of the nine reporting that they would not find it helpful to have additional or alternative points of reference between the current and the new grades.
186. In greater support for having additional or alternative points of reference between the current and the new grades, were all of the local authorities (three) who responded and the majority of subject associations (four out of six).
187. Respondents provided supplementary comments that explained what the other points of reference between current and new grades should be.
188. The analysis of the comments highlighted three main themes. The first theme related to the need to have **additional mapping of how the new grades relate to old grades**. The nature of these comments was that there needs to be '*clarity*' in the system so that new grades can be compared to the old grades. Typical comments included:

“There needs to be clarity re what these new grades all mean so [they] can be aligned with earlier system.”

Other personal view

“There must be clarity about the relative positions of the ‘new’ and ‘old’ grades. We would encourage Ofqual to make as much information as possible available and to present it in ‘user friendly’ formats.”

Local Authority (City of York)

189. A small number of comments related to the need for information that shows comparability across the new and old grades, with references made to information tailored to employers and parents.

“There should be an equivalency table/chart for employers and parents and this should be in place for at least five years, as employers in particular are slow to acknowledge new systems/grades.”

School representative body/Union (Association of Teachers and Lecturers)

190. The second theme related to the additional or alternative points of reference between the current and the new grades is the **need for additional grade / performance descriptors**. While a smaller number of comments related to this theme around 15 responses referred to this.
191. Within these comments there was a feeling that ‘*detailed*’ and ‘*clear*’ grade descriptors were needed and that these would be beneficial across all levels and grades and not just some.

“Detailed comparative grade descriptors would be beneficial for all grades.”

School/college (Burton and South Derbyshire College)

“Clearly defined definitions and grade descriptors, similar to those currently used in marking GCSE and GCE art and design.”

Teacher not on behalf of school (Teacher of Art and Design)

192. The third theme related to the need for **more explanation on what is expected or an ‘exemplification’ of the standards required for each grade**. These comments also suggested the need to provide examples of exam papers or student submissions to provide this context.

“Exemplification of each grade, along with sample exam papers and mark schemes.”

Personal view

“Any help in understanding what is needed to achieve each grade will be welcome; indeed essential.”

School representative body/union (Schoolzone)

Question 7:

193. Ofqual asked their stakeholders whether the current boundary between a grade G and an Unclassified outcome is meaningful. The *majority* of respondents felt the current boundary between a grade G and an Unclassified outcome *is meaningful*.
194. Two in three (64%) reported the current boundary as being meaningful while one in three (36%) reported it was not.
195. By respondents group, six out of ten (62%) personal responses and seven out of ten (70%) organisational responses indicated that the current boundary between a grade G and an Unclassified outcome is meaningful.

Figure 12: Is the current boundary between a grade G and an Unclassified outcome meaningful? (Q7)

	Yes	No	Total
Personal responses	96	60	156
Teacher	84	53	137
Parent/student/carer	6	2	8
Other	4	3	7
Organisational responses	33	14	47
Awarding organisation	6	3	9
School representative body/union	5	4	9
Subject association	5	2	7
Local Authority	3	1	4
School	14	4	18
Total (n)	129	74	203
Total %	64%	36%	

196. By respondent type there is a consistent picture with a majority of all types reporting the current boundary between a grade G and an Unclassified outcome as meaningful. The most supportive group were the official schools' responses where 14 out of 18 responses stated the boundary was meaningful.
197. Respondents provided supplementary open comments that explained why they felt the current boundary between a grade G and an Unclassified outcome is or is not meaningful.
198. Among those who felt that the boundary between a grade G and an Unclassified outcome was meaningful, one in three of the comments argued that **grade G represents progress or a genuine achievement to some students**. Individual and organisational responses recognised the need to protect this principle in the system.
199. Many of these comments strongly made the point that for 'students at the lower end of the attainment spectrum' or students with particular learning difficulties obtaining a grade G is a major achievement that should be recognised.

"It is meaningful to those working at the lower end of the grade scale, as it represents the (real) pass-fail boundary. If GCSE is to be a qualification for all, the (small) proportion working at this grade must not be ignored."

Awarding organisation (OCR)

"For some students, a grade G represents real progress - and they should gain something for their efforts."

Teacher not on behalf of school (Head of Modern Languages)

"Although the threshold for grade G is often very low and more an indication of what candidates cannot do rather than what they can, there are still students for whom a grade G is a genuine achievement."

Subject association (Association of Teachers of Mathematics)

"Learner achievement should be recognised and as such the lowest grade in the current GCSE grading scale provides some recognition of achievement for two years of work."

Awarding organisation (Pearson)

200. Further comments made the case that not allowing certain pupils to achieve a grade G would not recognise their achievements and **is unfair to the individuals concerned**. This was a view presented from individual teachers and a theme from the awarding bodies who responded.

“It is hugely meaningful to those who are operating at that level. Have you never seen a student open his envelope and finally get a G after previously getting only U? To that student, the G is their A*.”

Teacher not on behalf of school (Head of Mathematics)

“The policy intention is that the reformed GCSE should be designed to be appropriate for the whole cohort who currently take GCSE. As such, it would not be fair to set grade boundaries such that the very small proportion of students who currently receive a grade G do not receive a grade in future.”

Awarding organisation (AQA)

201. Along a similar theme, those who felt that the boundary between a grade G and an Unclassified outcome was meaningful, also argued that **achieving a grade G does shows some knowledge in the subject rather than none / shows the student has engaged with the exam.**
202. Typical quotes demonstrating this argument were:

“It shows students have met a minimum standard, which can show they have at least some level of skills and knowledge.”

Teacher not on behalf of school (Assistant Head of Sixth Form)

“A grade G is equivalent to a poor examination but nevertheless a candidate that has some basic knowledge. A U can be a spoilt paper or absolutely no knowledge.”

School/college (Heathlands School)

203. As Figure 12 shows around a third of respondents to the consultation felt that the boundary between a grade G and an Unclassified outcome is not meaningful. Where comments were offered to support this view they were themed around the argument that **a grade G is meaningless or represents a fail.**
204. The argument made by a majority of this small number of comments was that outside of education a G grade is seen as a fail and has limited value (in terms of employment and further education) to those who achieve it. Typical quotes making this point included:

“A grade G has very little currency for a learner in either the jobs market or for moving into further education.”

Teacher (not on behalf of school)

“The current grade G is in effect almost meaningless in terms of a measure of achievement, and therefore there is every reason to merge U/G as indicative of no real progress in the subject.”

Local Authority (Buckinghamshire County Council)

205. A very small minority of comments from those who felt that the boundary between a grade G and an Unclassified outcome is not meaningful, also **argued that anything less than a D grade is considered a fail** which reduces the value of grades below this level. As the following quote highlights:

“With the emphasis on obtaining grade C and above, the relevancy of any grade below C is meaningless.”

Other personal view (FE Administrator)

Question 8:

206. Ofqual asked their stakeholders whether in their view, the grade 1 boundary should be set to align with the current grade F or grade G. The majority of respondents reported that the grade 1 boundary should align with the *current G*.
207. Two in three (65%) reported that the grade 1 boundary should align with the current G while one in three (35%) indicated that the grade 1 boundary should align with the current grade F. This view did not differ by respondent group.

Figure 13: In your view, should the grade 1 boundary be set to align with the current grade F or grade G? (Q8)

	Grade F	Grade G	Total
Personal responses	53	97	150
Teacher	48	83	131
Parent/student/carer	2	6	8
Other	2	5	7
Organisational responses	14	28	42
Awarding organisation	1	7	8
School representative body/union	2	5	7
Subject association	0	5	5
Local Authority	3	1	4
School	8	10	18
Total (n)	67	125	192
Total %	35%	65%	

208. By respondent type there was also a broadly consistent picture with a majority of all types reporting that the grade 1 boundary should be set to align with the current grade G. The only exception being those LAs who responded where three out of four were in favour of aligning the grade 1 boundary with the current grade F.

Question 9:

Open ended comments on the distribution of new grades (Q9)

209. Respondents to the consultation were asked to provide any other views on the distribution of the new grades. Respondents provided a wide range of viewpoints covering many different issues.
210. However, amongst the diversity of comments two main themes emerged.. Firstly, respondents offered the view that **grade 9 should test the most able and be restricted to a small number of exceptional candidates**. There was a feeling from a small number that grade 9 should be set to be highly aspirational and an indicator of exceptional performance. As these quotes highlight:

“[Grade 9] This should be highly aspirational - higher than assuming half of the current A* cohort will be able to attain it.”

Teacher not on behalf of school (Deputy Headteacher)

“The current A* should, we feel, equate to grade 8, with the grade 9 being restricted to a very small number of exceptional candidates. This would set a very high and aspirational target for students in extremely academic environments, and this would mark the grade 9 as an indicator of exceptional performance.”

Local Authority (Buckinghamshire County Council)

211. Secondly, a number of comments made the point that the **distribution of the new grades does not provide enough differentiation at the bottom grades, which will be unfair to those with lower attainment**. With concerns raised that weaker students may be excluded or unable to access the new grades.

“The new system should not exclude from GCSE entry those who up to now have only been capable of achieving a G grade.”

Teacher not on behalf of school (Director of Curriculum)

“It seems as though this moves away from a normal distribution curve and is skewed to more differentiation between more able students and less differentiation between less able students. How will this enable employers to differentiate between potential employees?”

Teacher (not on behalf of school)

“An inevitable consequence of setting “new” 4 = “old” C is to reduce the number of grades available to cover lower levels of performance. This will mean that relatively small numbers of candidates will populate a very wide space in terms of attainment. We are concerned that this could devalue their achievements.”

Local Authority (City of York)

Question 10:

212. Ofqual proposed that the national reference test should be designed so that exam boards can use its outcomes to identify changes in the performance of the national cohort that could be reflected in the grades of new GCSEs awarded. The majority of respondents agreed with this proposition.
213. Figure 14 below shows the distribution of responses against an agreement scale. Two in four (49%) agreed with the proposition, three out of ten (28%) disagreed and a further one in four (23%) did not know or offered no opinion. This view was consistent between both the personal and organisational responses.

Figure 14: To what extent do you agree or disagree with this proposition? (Q10)

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know/no opinion	Total
Personal responses	24	54	29	18	36	161
Teacher	22	43	29	14	31	139
Parent/student/carer	1	5	0	1	2	9
Other	1	5	0	2	2	10
Organisational responses	3	21	5	7	12	48
Awarding organisation	0	5	1	0	3	9
School representative body/union	1	5	0	1	2	9
Subject association	0	2	2	1	2	7
Local Authority	1	1	0	1	1	4
School	1	8	2	4	4	19
Total (n)	27	75	34	25	48	209
Total %	13%	36%	16%	12%	23%	

214. By respondent type the strongest support for the proposition was from official responses from school representative bodies/unions, with six out of nine in agreement. In contrast subject associations were more likely to disagree with the proposition, with three in disagreement and two in agreement.
215. Respondents provided supplementary open comments that explained why they agreed or disagreed with the national reference test proposal.
216. Where agreement was offered to this proposal around a third of the comments related to the view that the design of the national reference test was **a fair, sensible approach that would help to recognise changes in standards**. Comments ranged from the very straightforward agreement with its fairness:

“This seems entirely fair - if a cohort is stronger or weaker than a previous year, then the GCSE grades awarded should reflect this.”

Teacher not on behalf of school (Head of Modern Languages)

217. Others offered the sentiment that it was very important that changes in standards are recognised:

“It is very important that improvements in standards are recognised - after all much of the point of the whole exercise is to raise standards.”

Teacher (not on behalf of school)

218. However, although agreement was offered with the proposal, a number of comments stated that this was '**agreement in principle**' or '**agreement with the concept**' but offered **concerns over the practicalities of implementing the proposals**.
219. These concerns were mainly raised by teaching professionals and ranged from issues around timetabling in the school year and stress on students to how the test will be designed.

“I think that it would help maintain standards however I’m not sure how these tests would fit into the school yearly timetable, would they be of benefit or a distraction to those taking part in preparing them for their final GCSE?”

Teacher (not on behalf of school)

“This would also add further pressure on schools and students by adding to the volume of exam-based assessment undertaken by students in their GCSE year.”

Awarding organisation (ifs University College)

“Whilst we agree with this proposal in principle, we are still unsure that a test based on a sample from a cohort will be subtle enough to make fair distinctions in determining whether more or fewer learners should receive a certain grade in that year.”

School/college (Burton and South Derbyshire College)

220. Where disagreement was offered by respondents, similar points were made about the **impact that adding a further test may have on students' stress and performance.**

“Having yet another set of exams, especially if these are just before their GCSEs would just be additional stress (for them and their parents) with no benefit to themselves.”

Parent/ carer

“It will put yet more pressure on students who will already be stressed out with exam pressure. Why can't it be done earlier?”

Teacher (not on behalf of school)

221. Another theme that emerged among those who disagreed with the proposals regarding the national reference test were **concerns over the robustness and representativeness of the sample** on which the tests are based. While this was mentioned in the personal responses received this was also a concern from awarding organisations in particular.

“We would ask if this test was introduced, there would be guidelines to ensure that the cohort who sit these tests are truly representative of the broad range of learners in a year group, any deviation from this would distort the results provided.”

Awarding organisation (NCFE)

“...If Ofqual were to press ahead in developing a test, we would need to know more in order to advise further. What would the test contain? How would the sample of students be chosen? How would the representativeness of the sample be determined?”

Subject association (Royal Statistical Society)

“A reference test that samples a small proportion of the cohort cannot possibly supply direct information to exam boards for all subjects. In order to do so there would need to be sufficient learners from every subject without the population overlaps causing bias.”

Awarding organisation (Pearson)

222. A number of organisational and personal responses also indicated that it was **difficult to make a judgement as the design was at such an early stage.** Stakeholders felt they needed more information on the proposal before they could make an informed decision.

“We cannot offer an opinion at this stage without knowing more about the design of the national reference test. Such a test would need to be designed very carefully to give results that are nationally representative and statistically robust as there are some technically very complex decisions to be taken around sampling size and sampling strategy.”

Awarding organisation (WJEC)

“This proposal is currently insufficiently developed for us to offer a definitive opinion. It is not clear how much value it will add and at what cost.”

Local Authority (City of York)

223. Given the uncertainties about the design of the national reference test, a small number of respondents called for the need **to further evaluate the approach and pilot the test before full implementation.**

“We think that this would need to be evaluated to see how it was operating and also that there would need to be a clear communications strategy explaining how this would work, as it is a further complication to a process that is already poorly understood.”

School representative body/union (Association of Colleges)

“We recommend that the current tendering process for the reference test is postponed to allow for a full debate and consultation on how best to achieve the policy objective.”

Awarding organisation (AQA)

Question 11:

224. Ofqual outlined that they had not identified any ways by which their proposed approach to setting grade standards for new GCSEs may impact (positively or negatively) on persons who share protected characteristics. They asked stakeholders whether they were aware of any potential impacts that Ofqual may not have identified. The majority reported that they were *not aware*.
225. Eight out of ten (79%) respondents reported that they were not aware of any potential impacts of the proposals on persons who share protected characteristics. Two in ten (21%) said that they were aware of potential impacts. This was a consistent view across the personal and organisational responses.

Figure 15: Are you aware of any potential impacts we have not identified? (Q11)

	Yes	No	Total
Personal responses	32	125	157
Teacher	26	110	136
Parent/student/carer	4	5	9
Other	2	7	9
Organisational responses	10	35	45
Awarding organisation	1	6	7
School representative body/union	3	6	9
Subject association	0	6	6
Local Authority	1	3	4
School	5	14	19
Total (n)	42	160	202
Total %	21%	79%	

226. Respondents who were able to identify potential impacts of the proposals on persons who share protected characteristics were asked to outline what these were and what steps could be taken to mitigate against them. A relatively small number of responses was received and the key issue mentioned related to inequality around lower attaining students.
227. **Students with special educational needs and disabilities (SEND) were the most mentioned group identified as being negatively impacted by the proposals.** The majority of these comments came from schools and teaching professionals and stated that students with particular difficulties may find the exams inaccessible and the removal of grades at the lower end of the spectrum may disproportionately disadvantage them.

“Removal of G grade may disadvantage SEN pupils who may not be able to access a grade in the new GCSEs.”

School/college

“Students with special needs will be disadvantaged as the lower grades, representing the stages in their learning, will be amalgamated. More grades at lower levels would reflect and therefore encourage their progress more easily.”

School/college (The Eastbourne Academy)

228. The impact on students with SEND was the only consistent theme mentioned. However, amongst the 42 respondents who were aware of potential impacts a range of other issues was mentioned, although not with any consistency to be considered a theme in the comments received. Furthermore some of these comments were outside the scope of this consultation, such as comments related to the impact of the move from blended assessment to a linear approach.

Appendix A: List of consultation respondents

230. The following organisations responded to the online consultation or provided written submissions.

Organisation name
Advisory Committee on Mathematics Education
AQA
Association of Colleges (AoC)
Association of School and College Leaders
Association of Teachers and Lecturers
Association of Teachers of Mathematics
Buckinghamshire County Council
Burton and South Derbyshire College
Caistor Yarborough Academy
CBI
City of York Council
Cottenham Village College
Exeter School
Geographical Association
Girls' Schools Association, GSA
Grammar School Heads' Association (GSHA)
Hagley Catholic High School
Haybridge High School
Heathlands School
HMC (the Headmasters' and Headmistresses' Conference)
IBO

ifs University College
Independent Schools Association
James Allen's Girls' School
Lancashire County Council
Lifetime Awarding
Mathematics in Education and Industry
NAHT
NASUWT
National Governors' Association
National Union of Students
NCFE
OCR
Pearson
Royal Statistical Society
SCORE
Schoolzone
Sir Graham Balfour
SPA, the Supporting Professionalism in Admissions Programme
St. Paul's Girls' School
St. Wilfrid's School and a major examining board
The Eastbourne Academy
The Howard of Effingham School
The Mathematical Association
Tring School

UCAS
University Council of Modern Languages
Voice: the union for education professionals
Wakefield Local Authority and Secondary Schools
WJEC

Appendix B: Consultation Questionnaire

About you*

Your details:

Name:	
Position:	
Name of organisation or group (if applicable):	
Address:	
Email:	
Telephone number:	

Would you like us to treat your response as confidential?* If you answer yes, we will not include your details in any list of people or organisations that responded to the consultation.

Yes No

Are the views you express on this consultation an official response from the organisation you represent or your personal views?*

Personal views

Official response from an organisation/group (please complete the type of responding organisation tick list)

If you ticked “Personal views”, which of the following are you?

Student

Parent/carer

Teacher (but not responding on behalf of a school or college)

Other (including general public) (please state capacity) _____

If you ticked “Official response from an organisation/group”, please respond accordingly:

Type of responding organisation*

- () Awarding organisation
- () Local authority
- () School/college (please complete the next question)
- () Academy chain
- () Private training provider
- () University or other higher education institution
- () Employer
- () Other representative group/interest group
- () Other representative group/interest group (please skip to type of representative group/interest group)

School/college type

- () Comprehensive/non-selective academy
- () State selective/selective academy
- () Independent
- () Special school
- () Further education college
- () Sixth form college
- () None of the above (please state what) _____

Type of representative group/interest group

- () Group of awarding organisations
- () Union
- () Employer/business representative group
- () Subject association/learned society

Equality organisation/group

School/college or teacher representative group

None of the above (please specify) _____

Nation*

England

Wales

Scotland

Northern Ireland

Other EU country (please state which) _____

Non-EU country (please state which) _____

How did you find out about this consultation?

Our newsletter or another of our communications

Via internet search

From our website

From another organisation (please state below)

Other (please state) _____

May we contact you for more information?

Yes

No

*Denotes mandatory fields

Questions

231. We have considered three possible ways by which the standard for new GCSEs could be set in the first year:

- (a) an approach that uses statistical information to link the award of the new grades to current grades
- (b) an approach in which awarders judge students' work against descriptions of expected performance – criterion-referencing
- (c) a norm referenced approach in which the proportion of each grade available to the cohort is pre-determined.

Please rank these possible approaches, using 1 for your preferred approach and 3 for your least preferred approach:

Option (a).....

Option (b).....

Option (c).....

Please give reasons for your answer.....

.....

232. We have proposed that in the first year the standard for a grade 4 should be set so that the proportion of students who would previously have been expected to be awarded at least a grade C in a subject will be awarded at least a grade 4 in the subject. To what extent do you agree or disagree with this proposition?

Strongly agree

Agree

Disagree

Strongly disagree

Don't know/no opinion

Please give reasons for your answer.....

233. Would you find it helpful if other points of reference between current and new grades were set and communicated before the first awards are made?

Yes

() No

Please give reasons for your answers.....

.....

234. We have proposed that the standard of performance for a grade 5 should align to the expected standard for similar qualifications or exams taken in high performing countries. To what extent do you agree or disagree with this proposition?

() Strongly agree

() Agree

() Disagree

() Strongly disagree

() Don't know/no opinion

Please give reasons for your answer.....

235. We are considering whether and, if so, at which points we should make a link between the new and the current grades. We would welcome your views on the appropriateness and the usefulness of the following possibilities:

(a) setting the grade boundary for grade 7 so that, all things being equal, the same proportion of students who would previously have been awarded a grade A or above are awarded a grade 7 or above in the first year?

Would you consider this link to be:

Appropriate Yes/No

Useful Yes/No

(b) setting the grade boundary for a grade 9 so that half of the proportion of students who would previously have been awarded an A* are awarded a grade 9 in the first year?

Would you consider this link to be:

Appropriate Yes/No

Useful Yes/No

- (c) setting the grade boundary so that the same proportion of students who would have achieved grades G and F are awarded a grade 1 in the first year?

Would you consider this link to be:

Appropriate Yes/No

Useful Yes/No

Please give reasons for your answers.....

236. Would you find it helpful to have any additional or alternative points of reference between the current and the new grades?

Yes/No. If yes what are they?

.....

237. Is the current boundary between a grade G and an Unclassified outcome meaningful?

Yes/No

Please give reasons for your answers.....

238. In your view, should the grade 1 boundary be set to align with the current grade F or grade G?

F/G

239. Do you have any other views on the distribution of the new grades?

.....

240. We have proposed that the national reference test should be designed so that exam boards can use its outcomes to identify changes in the performance of the national cohort that could be reflected in the grades of new GCSEs awarded. To what extent do you agree or disagree with this proposition?

() Strongly agree

() Agree

() Disagree

() Strongly disagree

Don't know/no opinion

Please give reasons for your answer.....

241. We have not identified any ways by which our proposed approach to setting grade standards for new GCSEs may impact (positively or negatively) on persons who share protected characteristics. Are you aware of any potential impacts we have not identified?

Yes

No

If yes, what are they and what steps could be taken to mitigate them?

.....
.....
.....

Annex B

Equality analysis

Ofqual's role, objectives and duties

1. Our statutory objectives, as set out in the Apprenticeships, Skills, Children and Learning Act 2009 (the Act), include the qualifications standards objective, which is to secure that the qualifications we regulate:
 - a) give a reliable indication of knowledge, skills and understanding; and
 - b) indicate
 - i. a consistent level of attainment (including over time) between comparable regulated qualifications; and
 - ii. a consistent level of attainment (but not over time) between qualifications we regulate and comparable qualifications (including those awarded outside of the UK) which we do not regulate.
2. We must therefore regulate so that qualifications properly differentiate between students who have demonstrated they have the knowledge, skills and understanding required to attain the qualification and those who have not.
3. We also have duties under the Act to have regard to the reasonable requirements of relevant students, including those with special educational needs and disabilities, of employers and of the higher education sector, and to aspects of government policy when so directed by the Secretary of State.
4. As a public body we are subject to the public sector equality duty (PSED).⁸
5. The exam boards that design, deliver and award GCSE, A level and AS qualifications are required by the Equality Act 2010, among other things, to make reasonable adjustments for disabled people taking their qualifications, except where we have specified that such adjustments should not be made.

⁸ Equality Act 2010, section 149 This duty requires us to have due regard to the need to:

- a) eliminate discrimination, harassment, victimisation and any other conduct which is prohibited under the Equality Act 2010;
- b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
- c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

6. When we decide whether such adjustments should not be made, we must have regard to the need:
 - to minimise the extent to which disabled persons are disadvantaged in attaining the qualification because of their disabilities;
 - to secure that the qualification gives a reliable indication of the knowledge, skills and understanding of a person upon whom it is conferred;
 - to maintain public confidence in the qualification.
7. Legislation therefore sets out a framework within which we must operate. We are subject to a number of duties and we must aim to achieve a number of objectives. These different duties and objectives can, from time to time, conflict with each other. For example, if we regulate to secure that a qualification gives a reliable indication of a student's knowledge, skills and understanding, a student who has not been able to demonstrate the required knowledge, skills and/or understanding will not be awarded the qualification. A person may find it more difficult, or impossible, to demonstrate the required knowledge, skills and/or understanding because they have a protected characteristic. This could put them at a disadvantage relative to others who have been awarded the qualification. It is not always possible for us to regulate so that we can both secure that qualifications give a reliable indication of knowledge, skills and understanding and advance equality between people who share a protected characteristic and those who do not. We must review all the available evidence and actively consider all the available options before coming to a final, rational decision.
8. Qualifications cannot be used to mitigate inequalities or unfairness in the education system or in society more widely than might affect, for example, students' preparedness to take the qualification and the assessments within it. Whilst a wide range of factors can have an impact on a student's ability to achieve a particular mark in an assessment, our influence is limited to the way the qualification is designed and assessed.
9. We require the exam boards to design qualifications to give a reliable indication of the knowledge, skills and understanding of those on whom they are conferred. We also require the exam boards to avoid, where possible, features of a qualification that could, without justification, make a qualification more difficult for a student to achieve because they have a particular protected characteristic. We require exam boards to monitor whether any features of their qualifications have this effect.
10. In setting the overall framework within which exam boards will design, assess and award the new GCSE qualifications, we want to understand the possible impacts of the proposals on persons who share a protected characteristic.
11. The protected characteristics to which we are required to have due regard are:
 - age;

- disability;
- gender reassignment;
- pregnancy and maternity;
- race;
- religion or belief;
- sex;
- sexual orientation.

Reforming GCSEs

12. We have published our equality impact analysis that informed our decisions on the design, assessment and grading of new GCSEs.⁹
13. Before taking the decision to grade the new qualifications 1-9, we considered the potential impact, both positive and negative, on students who share protected characteristics. The DfE considered the potential impact on students who share protected characteristics of its proposed content for new GCSEs before finalising it.
14. We have considered the impacts of our proposed approach to awarding grades for the new GCSEs, and the alternative options identified, on students who share a particular protected characteristic. We have considered our proposals in light of the responses made to the consultation.
15. Under our *General Conditions of Recognition*,¹⁰ exam boards must design assessments in such a way as to minimise any disadvantage that may be experienced by students with protected characteristics.¹¹ They must also put in place arrangements which allow reasonable adjustments to be made for students with disabilities when taking assessments.¹² Exam boards must also demonstrate how they have taken equalities considerations into account in the assessment strategies which they must put in place for the new GCSEs.
16. The purpose of these measures is to ensure that by the time grades are set for a particular assessment, steps have been taken to ensure that, as far as possible, all students have been given the opportunity in that assessment to demonstrate their knowledge, skills and understanding on a level playing field.

⁹ <http://comment.ofqual.gov.uk/gcse-reform-june-2013/>

¹⁰ www.ofqual.gov.uk/documents/general-conditions-of-recognition

¹¹ General Condition E4.2.

¹² General Condition G6.2.

17. Grade setting therefore focuses on the level of the knowledge, skills and understanding which has been demonstrated in those assessments and does not take account of the particular characteristics of the individual students who have taken those assessments. The grade awarded to each individual student solely reflects the performance of that student in that assessment.
18. To do otherwise would risk introducing different standards in the same qualification for students with protected characteristics and those without. This would not be desirable for students, employers or further and higher education institutions.

Proposals for a new approach to setting GCSE grade standards

19. We asked respondents to identify whether aspects of the proposals might affect students who share protected characteristics. 42 of those answering this question said they had identified potential impacts and 160 said they had not.
20. Feedback centred on the implications for students most likely to be awarded the lowest grades¹³. It was suggested that disabled students in particular might be affected. The issues raised in the responses to the consultation reflected those expressed by a number of people who attended our consultation events.
21. The proposed reduction in the number of grades at the lower end of the grade range could prevent some students' progress being recognised and rewarded. A student who might currently be able to progress from a G grade to an F grade, or an F to an E, for example, might not have such progress recognised if the number of grades used to represent achievements in this range was reduced. The student might make progress, but the range of performance recognised by each of the new grades would be greater at the lower end than that recognised by the current grades. Such progress would therefore be less likely to result in a higher grade. This could de-motivating for such a student.
22. This impact could also be reflected in school accountability measures in which progression is a factor. A student at the lower end of the ability range might have to make greater progress to move from one grade to the next than would be necessary for a student at the higher end of the range, with negative implications for schools and students.
23. Most people who raised concerns about the effect of a reduced number of grades at the lower end of the scale focused on disabled students. Data shows that hearing and visually impaired students and, to a lesser extent, physically disabled students, are more likely to be awarded lower grades than non-disabled students.
24. We have considered data on GCSE performance to see whether students who share different protected characteristics are more likely to be affected by the grade standards proposals than others.

¹³ A number of respondents raised issues about the reform of the qualifications that were not related to the way the qualifications will be graded. These wider issues are not considered in this analysis.

25. In terms of sex, boys are more likely to be awarded lower grades than girls of the same race.
26. In terms of race, Chinese students, male and female out-perform any other ethnic group, followed by Asian students (although there are differences within that broad grouping), mixed race students, white students and then black students.
27. The students most likely to be awarded the lowest grades are Gypsy Roma and travellers of Irish heritage – although the numbers are small.
28. We have not identified any aspects of the proposals that could have an impact on students because they share any of the following protected characteristics: age, gender reassignment, pregnancy and maternity; religion or belief or sexual orientation.

Mitigating the impact

29. We sought views on whether in the new grading arrangements, the new grade 1 should align with the bottom of the current lowest grade, G, or with the bottom of the current lowest but one grade, F.
30. The potential negative impact of the proposed new grading arrangements on students who share particular protected characteristics would be likely to be greater if the new grade 1 was aligned to the bottom of grade F than if it was aligned to the bottom of grade G. If the alignment was to the bottom of current grade F, performance that would currently result in the award of a GCSE, albeit at the lowest grade, would be unclassified. Although a G grade might not be widely valued, for some students performance at this level is a true achievement.

Annex C

Modelling using mark distributions

1. The first set of models produced for consideration by Ofqual's Reform Technical Working Group used simulated and real mark distributions from different examinations in each of the following GCSE subjects: English, English language, mathematics, chemistry, French, geography and physical education.
2. The models each started with the following rules determining fixed points that link the present grading scale to the new scale. For example, "C=4" means that for the examination being modelled, the minimum mark set for grade C in the operational examination was taken to be the minimum mark for grade 4 on the new scale.

Model 1: C=4; A=7; F=2

Model 2: C=4; A=7; F=1

Model 3: C=4

Model 4: C=4; A=6; F=2

3. Each model was run twice, first using:

(a) predetermined (equally-spaced) grade boundary marks between the fixed points,

and then run again using:

(b) predetermined (equal) cumulative percentages of candidates in grades between the fixed points.

4. The outcomes were considered at the meeting of Ofqual's Standards Advisory Group on 2 May. Model 3 was seen to be too vulnerable to skewed mark distributions and model 4 would not solve the bunching in candidates presently seen around grades B and C. On the basis of the modelling members expressed strong support for:
 - model 2, with a focus on the link between the current grade A and the new grade 7, and
 - for equally-spaced grade boundary marks (variant a) rather than equal cumulative percentages of candidates in grades when setting the standard for grades not set statistically such as 5 and 6.
5. Following that work, three possibilities were modelled by the exam boards to explore possible ways to award the highest grades. These models used both

simulated mark distributions and data from linear GCSEs, mainly those from summer 2010. The models are described in the box below.

Model c - interpolation

- Grades 8 and 9 are calculated arithmetically, ie grade 8 is the same number of marks above grade 7 as 7 is above grade 6, unless the width between the maximum mark and the grade 7 boundary is less than three times the width between grade 6 and 7, in which case grades 8 and 9 are interpolated between grade 7 and the maximum mark.

Model d – half those achieving grade A* are awarded a grade 9

- Cumulative % at grade 9 = $0.5 \times$ cumulative % at grade A*
- Grade 8 is halfway between grades 7 and 9.

Model e – a fifth of those achieving at least a grade 7 are awarded a grade 9

- Cumulative % grade 9 = $0.2 \times$ cumulative % at grade 7
- Grade 8 is halfway between grades 7 and 9.

6. In model c, grade 8 was set at the same number of marks above 7 as 6 is below 7, and grade 9 was the same distance again above 8. This means that where grades 8 and 9 fall is dependent on the way in which the assessments spread the marks (as is the case for the other arithmetic grades). Assessment instruments can vary in how they discriminate at the top end of the distribution, not least because of ways in which markers are standardised in their application of the mark scheme. Implementing this model would therefore mean that any inter-board differences in standards at these grades would be difficult to deal with. That said, this is also true of the intervening grades, and the method has the advantage of simplicity and would be easy for teachers to understand.
7. In model d, grade 9 was set at half the percentage of candidates who currently achieve a grade A* and grade 8 was set at the half way point in marks between grades 7 and 9. This has the advantage of being tied to a current grade which would make it easy to communicate the new standard. It would also be possible to adjust the proportion of candidates getting a grade 9 if there was, for example, evidence of differences in inter-board standards. On the other hand, a tie to the old grade A* grade may not be as satisfactory as a tie to one of the key judgemental grades (presently A, C and F). A performance standard does not, as such, exist at grade A*.
8. In model e, grade 9 was set at 20% of the proportion of candidates who achieved grade 7. This model still has a link to an established grade but end users might find it a conceptually weaker link than to grade A* although the link would be to a

grade that has a performance standard associated with it. Again, it would also be possible to adjust the proportion of candidates awarded a grade 9 if there was, for example, evidence of differences in inter-board standards.

9. The outcomes from the modelling were discussed by Ofqual's Reform Technical Working Group at a meeting on 18 June and then again by Ofqual's Standards Advisory Group on 4 July. This modelling did not change any of the conclusions reached earlier about how grades 1 to 7 might best be set. The modelling itself provided some assistance but did not give any clear cut answers to the question of how grade standards should be set for the top two grades.
10. Model c generally produced what looked like sensible outcomes and could be clearly explained to teachers and others. The downside was that some of the simulated mark distributions gave what appeared to be proportions of grade 9 that looked too high. This then raised questions about whether implementing this model could lead to inter-board inconsistencies within a subject because it was so dependent on mark distributions. It attracted little support.
11. Model d was not generally favoured because it was tied too closely to the present grade A* awards. If there are concerns about the comparability of A* grade standards across subjects or across boards then it may not be the best starting point for a new system. Certainly in English subjects the proportions awarded a grade A* look low.
12. We have sought to evaluate the impact of the different models on inter-subject comparability at grade 9. A paper was considered by Ofqual's Standards Advisory Group at its meeting on 4 July. However, the attempts were largely unsuccessful because of the insurmountable limitations in the data that are available before the new exams are sat and marked.
13. Model e was generally considered the safest option by those present at both meetings but would generate some differences across subjects compared to the present situation.
14. Ofqual's Standards Advisory Group considered a variant of model e derived from the Hong Kong Diploma arrangements for the highest grades. In that system the highest grade is a 5. Those achieving a grade 5 are then divided up according to their marks with the top 10% of grade 5 candidates awarded a 5** and the next 30% of grade 5 candidates awarded a grade 5*. Using such a principle in the new GCSEs we could set the percentages awarded at least a grade 7 at say: grade 9 – 10%; grade 8 – 30%; grade 7 – 60%. One alternative would be to have: grade 9 – 33%; grade 8 – 33%; grade 7 – 33%. There are of course others. The Standards Advisory Group considered the original version of model e to be superior to the Hong Kong inspired variant.

Annex D

Awarding grade 9: Modelling possible outcomes

In the tables below the source data are from the main awards of the summer 2013 GCSE examinations¹⁴. The two final columns show what happens if two possible rules for the award of grade 9 are applied to those data. The first uses model d – 50% of those achieving grade A* are awarded a grade 9. The second uses model e – 20% of those achieving at least a grade 7 (taken as the same as grade A) are awarded a grade 9.

GCSE Mathematics – Summer 2013						
AO	Specification number	Total number of candidates sat	Grade A* %	Grade A + A* %	Grade 9 % (A*x 0.5)	Grade 9 % (A x 0.2)
AQA	4362 (m)	68293	7.1	19.5	3.5	3.9
AQA	4365 (l)	52245	2.7	8.5	1.3	1.7
EDEXCEL	1MA0 (l)	439929	3.5	11.4	1.7	2.3
EDEXCEL	2MB01 (B)	61419	8.6	24.7	4.3	4.9
OCR	J562 (A)	13881	10.8	29.4	5.4	5.9
OCR	J567 (B)	45375	4.5	10.3	2.2	2.1
WJEC	4350 (u)	4593	7.1	16.9	3.5	3.4
WJEC	4370 (l)	28004	5.0	11.3	2.5	2.3
Total		713739	4.5	13.4	2.2	2.7

¹⁴ The data used here are for candidates from England, Wales and Northern Ireland. The data are those used at the time of awarding in July 2013.

GCSE English Language – Summer 2013						
AO	Specification number	Total number of candidates sat	Grade A* %	Grade A + A* %	Grade 9 % (A*x 0.5)	Grade 9 % (A x 0.2)
AQA	4707	293197	4.7	19.2	2.3	3.8
EDEXCEL	2EN01	47837	4.5	18.4	2.2	3.7
OCR	J355	35014	5.8	24.0	2.9	4.8
WJEC	4170	97850	3.5	17.6	1.7	3.5
Total		473898	4.5	19.1	2.2	3.8

GCSE English – Summer 2013						
AO	Specification number	Total number of candidates sat	Grade A* %	Grade A + A* %	Grade 9 % (A*x 0.5)	Grade 9 % (A x 0.2)
AQA	4702	115430	0.4	2.4	0.2	0.5
EDEXCEL	2EH01	24318	0.4	3.5	0.2	0.7
OCR	J350	11425	0.1	2.1	0.0	0.4
WJEC	4190	49539	0.2	1.6	0.1	0.3
Total		200712	0.3	2.3	0.2	0.5

GCSE English Language plus English – Summer 2013

AO	Specification number	Total number of candidates sat	Grade A* %	Grade A + A* %	Grade 9 % (A*x 0.5)	Grade 9 % (A x 0.2)
AQA	4707	293197	4.7	19.2	2.3	3.8
EDEXCEL	2EN01	47837	4.5	18.4	2.2	3.7
OCR	J355	35014	5.8	24.0	2.9	4.8
WJEC	4170	97850	3.5	17.6	1.7	3.5
AQA	4702	115430	0.4	2.4	0.2	0.5
EDEXCEL	2EH01	24318	0.4	3.5	0.2	0.7
OCR	J350	11425	0.1	2.1	0.0	0.4
WJEC	4190	49539	0.2	1.6	0.1	0.3
Total		674610	3.3	14.1	1.6	2.8

GCSE English Literature – Summer 2013

AO	Specification number	Total number of candidates sat	Grade A* %	Grade A + A* %	Grade 9 % (A*x 0.5)	Grade 9 % (A x 0.2)
AQA	4712	247721	5.2	22.6	2.6	4.5
EDEXCEL	2ET01	42036	6.8	23.6	3.4	4.7
OCR	J360	34796	5.8	24.0	2.9	4.8
WJEC	4200	118554	4.5	19.4	2.2	3.9
Total		443107	5.2	22.0	2.6	4.4

Annex E

Awarding grade 9: Modelling 5%, 10%, 15% and 20% rules

The tables below are based on the results from a selection of summer 2013 examinations in EBacc subjects¹⁵. The second column shows the proportion of the entry awarded a grade A*. The next four columns show what the outcomes would be if 20% / 15% / 10% / 5% of those awarded at least a grade A were to be awarded a grade 9.

GCSE title	Grade A*	Grade 9 20% rule	Grade 9 15% rule	Grade 9 10% rule	Grade 9 5% rule	Total Entry
OCR Mathematics A	11.4%	6.1%	4.6%	3.0%	1.5%	12,792
Pearson Mathematics B	3.5%	2.2%	1.7%	1.1%	0.6%	448,588
AQA English	0.4%	0.5%	0.3%	0.2%	0.1%	112,811
AQA English Language	4.6%	3.8%	2.9%	1.9%	1.0%	288,600
WJEC English Language	3.5%	3.6%	2.7%	1.8%	0.9%	97,648
OCR English Literature	7.2%	5.7%	4.3%	2.8%	1.4%	33,734
AQA Science A	1.2%	1.6%	1.2%	0.8%	0.4%	220,222
AQA Additional Science	2.7%	2.6%	1.9%	1.3%	0.6%	138,823
AQA Biology	15.6%	8.5%	6.4%	4.2%	2.1%	94,062
AQA Chemistry	18.1%	8.9%	6.7%	4.5%	2.2%	89,633
AQA Physics	17.1%	8.6%	6.5%	4.3%	2.2%	87,376

¹⁵ The data used here are for candidates from England only as issued in August 2013.

Pearson Geography B	9.8%	5.4%	4.1%	2.7%	1.4%	29,245
Pearson History B	7.7%	4.7%	3.5%	2.3%	1.2%	41,016
OCR Classical Greek	62.0%	17.1%	12.8%	8.5%	4.3%	1,235
OCR Latin	43.7%	14.2%	10.7%	7.1%	3.6%	9,111
OCR Portuguese	12.8%	10.0%	7.5%	5.0%	2.5%	1,958
Pearson Arabic	32.2%	10.5%	7.9%	5.3%	2.6%	3,531
WJEC French	6.9%	4.1%	3.1%	2.1%	1.0%	12,111
WJEC German	6.9%	4.1%	3.1%	2.0%	1.0%	4,828
WJEC Spanish	8.6%	5.0%	3.7%	2.5%	1.2%	6,248