

# **Consultation on Setting the Grade Standards of new GCSEs in England**



April 2014

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## **Foreword**

Most readers will know that GCSEs in England<sup>1</sup> are changing: in future they will have more demanding content, they will have a different grading scale and students will be assessed mainly by exams in most subjects, although there will still be some non-exam assessment. These changes are happening to improve educational outcomes for students. With more substantial content and the right assessments, students should have a better chance of doing well as they progress to the next stage of their lives.

New GCSEs are now being developed, with priority being given to English language, English literature and maths. More demanding subject content for these qualifications has been published and new assessments are being designed. They will be awarded for the first time in summer 2017.

Content and assessment are two aspects of a qualification that determine its standard.<sup>2</sup> The third is the standard to which students must perform to be awarded a particular grade, known as the performance standard. This consultation is about how in 2017 the performance standard will be set for the new GCSEs, how it will be set and maintained in subsequent years in all subjects and how the transition from the current eight-grade scale to a nine-grade scale will be managed. These matters are enormously important, and the public have a key stake in the decisions to be made.

To set the policy context first of all, qualifications policy is made by the Government. The Secretary of State for Education has set out his intention that new GCSEs in England should remain accessible, with good teaching, to the same proportion of students who currently take them,<sup>3</sup> and there must be an increase in demand at the level of what is widely considered to be a pass (currently indicated by a grade C) to reflect that of high-performing jurisdictions. The Secretary of State also stated that there was a strong case for the new GCSEs to have a new grading scale, “to reflect the step change in expectations for pupils”.

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<sup>1</sup> Ofqual regulates GCSEs taken by students in England. This consultation applies only to the GCSEs Ofqual regulates.

<sup>2</sup> The Government has already consulted on the content of the first of the new GCSEs to be introduced and we have already consulted on assessment arrangements.

<sup>3</sup> The policy intention is set out in a letter to us from the Secretary of State of 6th February 2013. The letter is published on our website: [www.ofqual.gov.uk/documents/letter-from-michael-gove-on-the-reform-of-gcses-february-2013](http://www.ofqual.gov.uk/documents/letter-from-michael-gove-on-the-reform-of-gcses-february-2013).

To implement this policy, we have met with groups of teachers and school leaders, spoken with exam boards and other assessment experts, considered how things work in some other (high performing) countries and surveyed employers as well, to inform our thinking.

Teachers and school leaders were clear that they want to know, above all else, what grade in future will equate to the current grade C, and how any changes will be reflected in the detail of the accountability regime – the ways in which schools are held to account – in future.

We propose to anchor the current grade C to the new grade 4: the bottom of a new grade 4 will correspond as closely as possible to the bottom of a current grade C. To meet the Government's policy aim that there should be an increase in demand at the level of what is widely considered to be a pass we are proposing that the next grade, grade 5, should be internationally benchmarked. The performance at that grade should correspond, so far as possible, to performance in high-performing countries.

Government is planning to change the way schools are held to account to focus on the progress made by pupils from the end of primary school (Key Stage 2) to their score across a suite of eight subjects at the end of Key Stage 4. The Government can now begin to consider expectations and any changes it may wish to make to the detail of the accountability regime, should these proposals for grades 4 and 5 go ahead, and determine the detail of how value added will be calculated. We will continue to talk with Government with the aim of ensuring that teachers and school leaders know as soon as is possible what is expected.

We have proposals for grades 4 and 5, and a clear rationale behind them. We have propositions about some of the other grades as well, and we particularly want to hear your views. So for example, there is more scope in future to differentiate achievement above grade 4, because there are more grades, but there is no one right way to do this and no common approach internationally either. We suggest some options for how we might proceed.

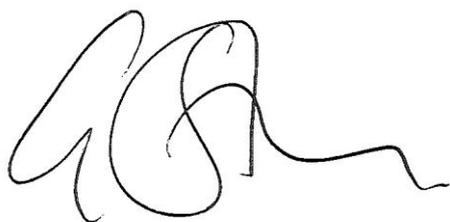
Our proposals aren't complete. There is still more work to be done, with much of that dependent on your views on the proposals we are making at the moment. There is a logical sequence to be followed to get to a final position, and this consultation is the first step. We are clear so far as possible in this document about what is still to be thought through.

There are two other matters that I would like to bring to your attention. Firstly, we are setting out how awarding happens at the moment. We will always want to improve awarding, however and whenever we are able to do so, and we are continuing to reflect on that and to talk with experts as we do so. We consider alternative awarding

approaches and options in this paper and ask your views, whilst making plain that in our view the best course of action is to continue to improve the current approach.

Secondly, we discuss standard setting for the new qualifications in subsequent years. We propose to develop our approach by introducing a national reference test ready for 2017. Our intention is that this will allow real changes in a cohort's performance to be reflected in the grades awarded after 2017, year by year. There is still much work to be done to define and develop the test arrangements and their use, but we outline our expectations so that you can consider (in principle) our proposal. We recognise as well that we will need to benchmark our standards not just nationally, but internationally on a periodic basis, so as to remain sure that our standards continue to compare well.

We want to hear views from students, parents, employers, higher and further education, school leaders and teachers about all of our proposals and we hope you will respond to this consultation. Please respond by 30th June 2014 and consider attending one of the events we will be arranging around the country to discuss the proposals.

A handwritten signature in black ink, appearing to read 'Glenys Stacey', with a long horizontal flourish extending to the right.

**Glenys Stacey**

Chief Regulator

## **Executive summary**

### **Background**

From September 2015, 14 years olds in England will start studying for new GCSEs. These will be graded 9–1 rather than A\*–G as are current GCSEs. We are seeking your views on the way the standards of these qualifications should be set.

New GCSEs in English language, English literature and maths will be introduced first; more subjects will follow from September 2016. The first new qualifications will be awarded in summer 2017 (2018 for those subjects taught from 2016).

There is already keen interest in the standard of the new qualifications and how the grading system will work, especially amongst school leaders and teachers.

We are now setting out and seeking views on (a) our proposed approach to setting and maintaining performance standards for new GCSEs and (b) how the grading system will work.

In **section 1** we explain that:

- the standards of a qualification are determined by its content, the way it is assessed and the level of performance required to achieve each grade;
- the breadth and depth of the subject content of the new GCSEs will typically be more demanding than that for current GCSEs; and
- more assessment in new GCSEs will be by exam than is now the case.

In **section 2** we explain that grade standards for GCSEs are currently set using a combination of statistical evidence and examiner judgement. We consider two other known approaches to standard setting, known respectively as the criterion referenced and norm-referenced approaches. We explain the advantages and disadvantages of each of them before proposing to set the standards of the new qualifications using a strengthened version of our current approach.

In **section 3** we explain our proposal that in the first year in which new GCSEs are awarded, grade boundaries should be set so that students who would previously have been expected to be awarded a grade C or above will be awarded a grade 4 or above. This approach will:

- protect the interests of students taking the new GCSEs in the first year;
- provide a reference point to help understanding of how the new grades relate to the current ones; and

- allow greater discrimination between students who currently achieve a grade C or above, as they will be able to be awarded one of six grades (4–9) rather than one of four (C–A\*).

We are considering additional points at which the performance standard for the new qualifications could be linked to that for the current qualifications, at the higher and lower ends of the grading scale.

We propose benchmarking the grade 5 performance standard to that required for exams that serve similar purposes in countries whose students perform well in international tests. We consider how the standard of the remaining grades might be set.

We go on to outline our proposed approach to standard setting in future years, including our plans to introduce a new national reference test.

In **section 4** we explain that it is for Government, higher and further education institutions and employers to decide what new GCSEs grades they will require or expect of students. We also explain the additional choice of grades provided by the new grade range.

**Section 5** is the initial equality analysis that considers whether any of the options and proposals might have a positive or negative impact on people with a particular protected characteristic as defined by the Equality Act 2010.

## **How to respond**

The closing date for responses to the consultation is 30th June 2014.

Please respond to this consultation in one of three ways:

- Complete the online response at: [surveys.ofqual.gov.uk/s3/questions-for-setting-the-grade-standards-of-new-gcse-april-2014](http://surveys.ofqual.gov.uk/s3/questions-for-setting-the-grade-standards-of-new-gcse-april-2014).
- Email your response to [consultations@ofqual.gov.uk](mailto:consultations@ofqual.gov.uk) – please include the consultation title (GCSE Grade Standards Consultation) in the subject line of the email and make clear who you are and in what capacity you are responding.
- Post your response to: GCSE Grade Standards Consultation, Ofqual, Spring Place, Coventry Business Park, Herald Avenue, Coventry, CV5 6UB.

## **Evaluating the responses**

To evaluate responses properly, we need to know who is responding to the consultation and in what capacity. We will, therefore, only consider your response if you complete the information page.

We will publish the evaluation of responses. Please note that we may publish all or part of your response unless you tell us (in your answer to the confidentiality question) that you want us to treat your response as confidential. If you tell us you wish your response to be treated as confidential, we will not include your details in any published list of respondents, although we may quote from your response anonymously.

We will be holding a series of events around the country to talk to people about our proposals and other aspects of the qualification reforms now underway. We will use the events to capture views and ideas.

The events will take place in May and June. We will publicise the events as soon as details are confirmed.

# 1. The standard of new GCSEs

## What do we mean by the standard of a qualification?

- 1.1 There are three dimensions to the standard of a qualification: the standard of the content; the standard of the assessment; and the standard of student performance required for the award of any particular grade.

### The content standard

- 1.2 The content is the subject matter that students should know and understand and the subject-related skills they should develop, on which they will be assessed. Content can be made more or less demanding by increasing or reducing the breadth, depth and/or complexity of the subject matter covered.
- 1.3 The content of the new GCSEs to be introduced for first teaching in 2015 has been published.<sup>4</sup> It has been designed to support the policy intention that the new GCSEs are more demanding than current ones. For example, the new maths content is more extensive than in the current GCSE. In English literature, students will study a new and more tightly defined range of texts.
- 1.4 All exam boards that provide new GCSEs must use the common, published content. We will regulate to make sure the exam boards interpret the content in the same way, so there is comparability of content standards between their GCSEs.

### The assessment standard

- 1.5 Assessments can be designed to be more or less demanding. Some questions are inevitably harder to answer than others. The style and language of a question, the complexity of the response it requires and the range and depth of knowledge that a student needs to answer it, will affect the level of its demand, as will the type and structure of the overall assessment.
- 1.6 We have already confirmed that new GCSEs will not in all cases be assessed in the same way as now. In particular, non-exam assessment (that is, assessment other than by exam, such as that used to assess practical skills) will be used only where it is the only way to assess skills that are essential to the subject. Where non-exam assessment is used, safeguards must so far as possible make sure it is properly undertaken and fairly marked.

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<sup>4</sup> [www.gov.uk/government/publications/gcse-english-language-and-gcse-english-literature-new-content](http://www.gov.uk/government/publications/gcse-english-language-and-gcse-english-literature-new-content) and [www.gov.uk/government/publications/gcse-mathematics-subject-content-and-assessment-objectives](http://www.gov.uk/government/publications/gcse-mathematics-subject-content-and-assessment-objectives).

- 1.7 New regulatory requirements on exam boards and the reduction in the use of non-exam assessment will address many of the concerns that in some cases current GCSE assessments are less valid, reliable and fair than they could be.

**The performance standard**

- 1.8 The standard of student performance required for the award of a particular grade is the dimension of the qualification standard that is the main focus of this consultation.
- 1.9 We must decide how to set the level of performance that students must show to be awarded the new GCSE grades. Once the standard is set, our role is to make sure that the content, assessment and grade standards are consistently applied by all of the exam boards year on year.

## **2. How grade standards for GCSEs are currently set**

- 2.1 We detail the current approach to standard setting at Appendix A, and summarise it below.
- 2.2 For current GCSEs a small group of senior examiners (awarders) within each exam board decides, for each assessment, the minimum mark that will be needed for key grades towards the top, bottom and middle of the grade range. These are known as grade boundaries. Once these key grade boundaries are set, others are determined arithmetically.
- 2.3 Experience and research evidence<sup>5</sup> shows it is difficult for awarders to make grade boundary judgements accurately and consistently simply by looking at students' work. Statistical information is crucial to the awarding process.
- 2.4 The exam boards aim to make sure the grade standards are in line with previous years and across exam boards, so that it is not easier or harder to obtain a particular grade in one year or with one exam board. Statistical information is essential to secure that comparability.
- 2.5 Exam boards use a variety of statistical evidence to guide the awarders' decisions. This includes how students have performed on the paper/task as a whole and at question level. Since 2012 exam boards have also used information about how the cohort of students performed in their Key Stage 2 tests, relative to the performance of previous cohorts. Cohorts do differ in ability year by year. This evidence indicates if the cohort overall was particularly strong or weak compared with previous years, which might explain why their GCSE performance might be expected to be stronger or weaker than that of previous cohorts.
- 2.6 The exam boards aim to set questions/tasks of similar demand year on year, but in practice a question/task might prove to be unexpectedly easy or difficult for the students taking the qualification. The grade boundaries are therefore set each year in response to evidence about how difficult the assessments prove to be. Grade boundaries are not automatically carried over from one year to the next.

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<sup>5</sup> See for example: Baird, J, *Alternative conceptions of comparability* in Newton, P.E., Baird, J., Goldstein, H., Patrick, H. and Tymms, P (Eds.), (2007) *Techniques for monitoring the comparability of examination standards*. London, Qualifications and Curriculum Authority.

- 2.7 Since we have required exam boards to report to us results using Key Stage 2 data and predications, there has been a levelling off in the growth of the percentage of higher grades awarded.
- 2.8 Prior to 2012, when the percentage of higher grades awarded each year routinely increased, there were suggestions that it had become easier to achieve a particular grade. This became known as 'grade inflation'.
- 2.9 Since 2012, when the previous trend of improving grades ended, there have been some suggestions that grade boundaries have been set deliberately to cap the number of students awarded the higher grades and that genuine improvements in student performance, which might result from improved teaching and/or student motivation, could be masked by the awarding methodology.
- 2.10 In fact, the numbers of higher grades awarded are not capped. If there is evidence to show performance has genuinely improved across the cohort the proportion of higher grades awarded can increase. Year on year increases that are outside an accepted level of tolerance and that cannot be justified have, however, been stopped.
- 2.11 Providing evidence to show performance has genuinely improved (or declined) is not straightforward. The reference test, explained later in this document, will help in the future.

### **Alternative approaches to setting standards**

- 2.12 We have considered and set out below two known alternatives to the current approach to awarding. The two alternative approaches are known respectively as criterion-referencing and norm-referencing.

### **Setting the performance standards of new GCSEs using grade descriptions – a criterion-referenced approach**

- 2.13 In principle, we could write for each subject, and for at least some of the nine grades, a description of the minimum performance a student would have to show in their assessments to be awarded the grade.
- 2.14 Exam boards would identify marked student work that most closely matched these descriptions. The marks given to the work would then be used to set each grade boundary. Any student who had been given a mark in the grade range would receive the corresponding grade. To allow for variations in the difficulty of the exams between years, the appropriate mark for each grade would have to be identified each year (as now).

- 2.15 At first sight, this approach has attractions. It would make it clear that there was no upper or lower limit to the number of students who could be awarded each grade, addressing concerns about ‘caps’ on the percentage of higher grades awarded. The descriptions would be available for teachers, students and others to see, helping them understand the standard of the new qualifications. It is also relatively easy to oversee and to implement.
- 2.16 However, we see no reason to suppose that such an approach would work well when the new GCSEs are introduced, for the reasons we set out below.
- 2.17 The first version of the descriptions would have to be written before students had taken the new assessments. They would therefore be general rather than precise, and they would be based on best estimates.
- 2.18 What is more, there were ambitions in the past to make GCSEs fully criterion-referenced but despite every effort, such an approach has not worked well in practice, here or elsewhere. To take an international example, a criterion-referenced approach was introduced in New Zealand for its National Certificate of Education Achievement (NCEA). It was first used there in 2005. The outcomes were unexpected, with great variations between some subjects. Following public and political interventions the grades were revised. Subsequent analysis suggests the problems were rooted in the use of a criterion-referenced system.<sup>6</sup>
- 2.19 In practice the approach would be difficult to use in a way that would be consistent, fair or meaningful. The descriptions would have to be worded very precisely if they were to differentiate between nine different standards of performance (one for each grade) for each subject. Awarders would also have to make very fine judgements as they applied the descriptions, as they would have to decide whether a mark of, say, 72 or 73, was in line with the minimum description of performance required for a particular grade. Experience shows this is not possible.<sup>7</sup>
- 2.20 The difficulties would be particularly acute in the first year in which the new qualifications were awarded. No one would know for certain how students would

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<sup>6</sup> [www.teacherswork.ac.nz/journal/volume2\\_issue2/nash.pdf](http://www.teacherswork.ac.nz/journal/volume2_issue2/nash.pdf).

<sup>7</sup> See for example: Baird, J, *Alternative conceptions of comparability in Newton*, P.E., Baird, J., Goldstein, H., Patrick, H. and Tymms, P (Eds.), (2007) *Techniques for monitoring the comparability of examination standards*. London, Qualifications and Curriculum Authority.

perform in the first assessments, particularly given that, as noted above, teachers would be unfamiliar with the content and assessments. It is unlikely but nevertheless possible that no student would perform to a level that would match the descriptions for the highest grades in one or more subjects, in which case no awards would be made at those grades. This could be unfair to students in the first cohort, de-motivating for students and teachers and could undermine confidence in the new qualifications.

- 2.21 GCSEs are and will continue to be ‘compensatory’ qualifications, so the same level of performance can be achieved in different ways – by doing very well in some areas and less well in others, or doing reasonably well across all areas. It would be very difficult to write or apply with any precision one grade description that would cover all types of performance. This is a feature of GCSEs that has to be taken into account when any approach to awarding is being considered and particularly when writing grade descriptions.
- 2.22 Exam boards would not be able to apply the descriptions with any degree of accuracy, so would have to accept some fluctuations, both up and down, in the actual performance standards required for each grade, both year on year and between exam boards.
- 2.23 In light of these shortcomings, we do not propose that new GCSEs should be awarded using grade descriptions and examiner judgement only.

### **Norm-referencing**

- 2.24 GCSEs and predecessor qualifications have never been fully norm-referenced. Norm-referencing tends to provoke strong responses, both in favour and against.
- 2.25 If norm-referencing was used, we would determine before the qualifications were first introduced the percentage of the cohort to be awarded each grade every year, regardless of their actual performance. The marks given to students’ work would determine the rank order of the cohort. The grade boundaries would then be set so that the predetermined percentage of students to be awarded each grade was achieved. In effect, the proportion of each grade awarded would be rationed.
- 2.26 The student’s performance relative to that of others in the same year would determine the grade awarded.
- 2.27 In principle norm-referencing is simple and straightforward to apply and to understand. A parent, employer or university would know, for example, that the performance of a student awarded grade X was in the Y percentile of the cohort. That is its great strength.

- 2.28 However, there are some significant problems with the approach.
- 2.29 It would not allow real improvements or other changes over time to be reflected in the grades awarded, unless the predetermined percentage of the cohort to be awarded each grade was changed in future years.
- 2.30 The ability profile of students within any cohort for a given subject is not identical year on year. We would therefore have to accept a lack of consistency in the performance standard of awards over time. Similarly, users of a qualification (employers, higher education institutions and so on) would not be able to make fair comparisons between students from different years. Because students from different cohorts compete for the same jobs and courses the approach could be unfair to students in a particularly high-performing cohort.
- 2.31 There would also be comparability issues between subjects. We would either have to assume that the ability profile of the cohorts taking each subject was the same when we know it is not, or accept that the performance standard required for each grade would vary between subjects. Alternatively, exam boards could use a different statistical allocation for each subject based on evidence about the relative ability profile of each cohort. There is a risk that schools might make tactical qualification choices, according to their perception of the ability profile that was traditionally entered for each subject.
- 2.32 In addition, the grade awarded would only convey information about how well a student performed compared with the rest of the cohort taking the subject that year. It would not provide information about a student's knowledge, understanding or skills in a subject.
- 2.33 Finally, norm-referencing could also create increased problems for inter-school support and co-operation. As there would be competition for the limited number of higher grades available, such a system might challenge schools' readiness to co-operate with each other to improve performance.
- 2.34 In view of this range of shortcomings we do not propose that new GCSEs should be awarded using a norm-referenced approach.

### **Improving the current approach**

- 2.35 As we conclude that neither a criterion-referenced nor a norm-referenced approach would be suitable, we propose instead to develop and adapt the current approach, rather than introduce a new one. The introduction of the reference test should help us to improve the current model by providing additional evidence to support awarding decisions, and address the main criticism of the current approach, that real improvements in performance are not reflected in the grades awarded.

### 3. Our proposed approach to setting the standard in the first year of awarding new GCSEs

- 3.1 We want to protect the interests of the first cohort<sup>8</sup> of students taking the new qualifications, given that their teachers will be unfamiliar with the new content and how it is assessed. We want the transition from the current to the new GCSEs to be managed in a way that minimises unexpected or unfair outcomes.
- 3.2 Normally our goal is for the standards of GCSEs to be consistent, both year on year and between exam boards.<sup>9</sup> However, the new GCSEs are being deliberately designed to be different from the current qualifications, in line with Government policy. They will have new content, new assessment and new grading arrangements. It would not be possible for us to maintain consistency with the current qualifications in the transition to new GCSEs.
- 3.3 We can learn from past changes to qualifications. When new A levels and AS qualifications were introduced in 2001 and 2002 as part of *Curriculum 2000* it was decided that, as a cohort, the first candidates should be awarded the grades that they would have been expected to receive had they taken the old syllabuses. For example, about the same proportion of students would be awarded a grade A in the new qualification as had been awarded that grade in the previous version. This was achieved by statistically-driven awarding.
- 3.4 The approach was justified on ethical grounds, as the fairest way to treat most of the candidates. The justification became known as the *ethical imperative* and there was an agreement to prioritise “comparable outcomes” as detailed below:

The comparable outcomes perspective implies that grade boundaries should be fixed so as to take account of any deficits in ... examination performance which are unique to the first cohort of candidates. On the other hand, the comparable performance perspective entails an acceptance that candidates' results in [the first year of a new syllabus] should suffer because for this reason they did

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<sup>8</sup> The cohort is the total group of students taking a GCSE in any year.

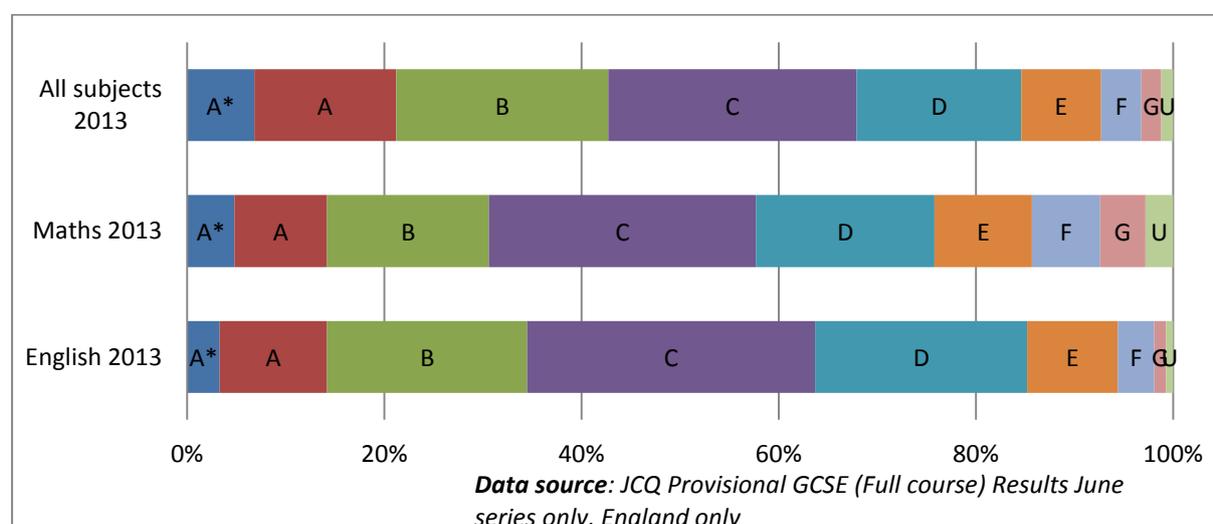
<sup>9</sup> This is in line with our statutory qualification standards objective, as set out in s128 of the Apprenticeships, Skills, Children and Learning Act 2009 which requires us to do all we can to maintain the standards of comparable qualifications. We do not have to maintain standards between qualifications that are not comparable or when qualifications are deliberately changed.

not produce performances comparable to those which would have been achieved by candidates [in the previous year].<sup>10</sup>

3.5 The transition from current to new GCSEs is more complex than the *Curriculum 2000* reforms were because of the new grading scale. Nevertheless, we believe there is a similar ethical imperative to protect the interests of the first cohort of students who take the new qualifications.

### The distribution of current GCSE grades

3.6 Table 1 shows for GCSEs awarded in summer 2013 to students in England the percentage of students awarded each grade across all subjects and for maths and English.



**Table 1**

3.7 Table 1 shows that relatively few students are awarded the lower grades, and there is bunching of candidates in the middle of the range. The new grade range can provide for greater differentiation.

### Proposed reference point between current and new grades

3.8 We propose that in 2017, when the standard of the new GCSEs will first be set, awarding should use statistical predictions, much as now. The predictions will show the proportion of students who would have been expected to be awarded at least a grade C, had they taken the current GCSE. We propose that these predictions should be used to determine the proportion of students who are awarded at least a grade 4. The predictions will be derived from the cohorts

<sup>10</sup> Cresswell, M.J. (2003) *Heaps, Prototypes and Ethics: The Consequences of Using Judgements of Student Performance to Set Examination Standards in a Time of Change*. London, University of London, Institute of Education.

performance in their Key Stage 2 tests relative to the performance of previous cohort's, as now.

- 3.9 This approach will give students, parents, employers, higher and further education, school leaders and teachers an anchor point so they can understand how the grades of the new GCSEs relate to the grades of the current GCSEs.
- 3.10 We believe this approach will be fair. It will provide some certainty about the way the qualifications will be awarded and about the grades awarded to the cohort overall. There will be no guarantee, of course, that individual students or a school or college's cohort of students will achieve the grades teachers predict. We know that some schools adjust more quickly than others when new qualifications are introduced. There is also no guarantee that the predicted results for 2017 will mirror those of 2016, if there are differences in the prior attainment or ability of the overall cohort. Our proposed approach will, however, help to manage expectations about the distribution of new grades.

## Grade 5

- 3.11 We have considered the Government's policy that GCSE standards should reflect qualifications in countries whose students perform well in international tests. In his letter to us of 6th February 2013 the Secretary of State wrote: "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. This is something we believe the vast majority of children with a good education should be able to achieve".
- 3.12 The Organisation for Economic Co-operation and Development (OECD) runs 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 maths, science and reading.
- 3.13 PISA test scores from England are shown below.

	Mean score for UK PISA results <sup>11</sup>		
Year:	2006	2009	2012
Mathematics	495	493	495
Science	516	515	516
Reading	496	495	500

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<sup>11</sup> We have not included the mean scores from 2000 and 2003 because in those years the UK did not meet sample size requirements.

- 3.14 The performance in international tests of students from a number of other countries has improved over this time, whilst (as the table shows) the performance of students from England has remained largely static.
- 3.15 We have also considered a Department for Education (DfE) evaluation of the performance of students in PISA 2009.<sup>12</sup> This report expresses the gap in PISA performance in reading, maths and science between pupils in England and their peers in the top-performing countries in terms of measures of attainment used nationally, including GCSE grades across a pupil's best eight GCSE or equivalent qualifications. In reading and science the gap was equivalent to an average of at least half a grade across the 'best eight'. In maths 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.
- 3.16 We propose that the standard of performance required for a grade 5 should be at about that implied by the international statistics, in other words, about a half to two-thirds of a grade higher than that required for a current grade C.
- 3.17 We have collected and reviewed performance descriptions for qualifications and exams that serve a similar purpose to GCSEs in those countries whose students tend to perform well in international tests. We will use these descriptors to help us check whether or not our expectations about the standard required for a grade 5 is correct and inform users accordingly.

### **Other grades**

- 3.18 For current GCSEs there are four grades available to those who achieve at least a grade C (C, B, A and A\*). For the new qualifications there will be six grades for those who achieve at least a grade 4 (4, 5, 6, 7, 8 and 9). This will provide greater discrimination in the middle and top of the performance range and will give students who might previously have been aiming for a grade C additional grades to aim for.
- 3.19 At the top of the range, we are considering whether the grade boundary for a grade 7 in a subject could be set so that, all things being equal (in other words if the ability profile of the cohorts were the same), the same proportion of students who would have been awarded a grade A or above in the last year of the

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<sup>12</sup> *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](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/181601/DFE-RR149.pdf).

current GCSE is awarded a grade 7 or above in the first year of the new GCSE. We want your views.

- 3.20 Alternatively, or additionally, we could set the grade 9 boundary so that half of the percentage of students previously awarded an A\* in a subject is awarded a grade 9. This would make the standard of performance required for the award of a grade 9 really exceptional. Again, we want your views.
- 3.21 Very small numbers of students are currently awarded a grade G, so we have considered whether grade 1 should be aligned to the current grade F. That would mean a grade G would align with Unclassified in the new grading structure. Although these lower grades have limited currency, they can recognise real progress for some students. We therefore propose that the proportion of students who achieve a grade 1 in the new GCSEs should be about the same as those who currently achieve either a grade F or a grade G, but we would welcome your views.
- 3.22 The approach to setting the grade boundaries for grades 2, 3 and 6 and how they compare with current grades, will depend on the decisions to be made, once we have considered responses to this consultation, in relation to grades 1, 4, 5 and 7.
- 3.23 We want to avoid unexpected outcomes and major differences between subjects when the new qualifications are awarded for the first time. With the exam boards, we are modelling data from past and current qualifications and using simulated data to understand how mark distributions might translate for different subjects into the grades that would be awarded. The outcomes of this modelling will inform decisions on the reference points we should use and whether the mark range covered by at least some grades (including 2, 3 and 6) should be determined arithmetically, such that the grade boundaries are equidistant in terms of marks from neighbouring grades.

### **Describing the performance standards**

- 3.24 We propose that for the first year we will write three illustrative and general grade descriptions for grades towards the top, the bottom and in the middle of the grade range. These descriptions will be primarily to help teachers understand the standard of performance expected at these points. So far as possible, these descriptions will describe the key characteristics and levels of achievement we might expect. We do not propose that these descriptions, which will be untested, should be used for awarding in the first year; we propose awarding should be based on statistical predictions. We will test these descriptions against the performance actually demonstrated in the early years and refine them as necessary. We will consider in due course whether in the future such descriptions could have any role in awarding.

## **Awarding new GCSEs in subsequent years**

- 3.25 Once the standard has been set in the first year, we propose to maintain the standard by strengthening the current approach to awarding. We propose that this approach will allow us to identify changes in a cohort's performance that should then be reflected in the grades awarded.
- 3.26 In future years, we envisage statistical information will continue to be important at awarding, because the evidence is that it is otherwise difficult to be confident that standards are being maintained. However, exam boards will be able to use information from the national reference test too.
- 3.27 After the first year we will be able to review and improve, using actual student scripts, the initial grade descriptions. We will consider whether exam boards should also refer to the grade descriptions, alongside student work when setting grade boundaries. We will consider with experienced awarders and assessment experts the ways (if any) in which awarding could be improved.

## **A national reference test**

- 3.28 We will be introducing a national reference test. The test will be piloted in 2016 and run annually from 2017. We are developing the details of the test now and intend to award a contract to a test developer later this year.
- 3.29 Our intention is that the test will be taken by a small cohort of Year 11 students shortly before they take their GCSEs and that the sample will be representative of the national cohort. The test will cover English language and maths. We are considering how to minimise the burden on schools and on students in the sample.
- 3.30 The performance of the students who take the test will provide a useful additional source of information about the performance of the cohort (rather than individual students) for exam boards awarding new GCSEs. If, overall, students' performance in the reference test improves on previous years (or indeed declines) this may provide evidence to support changing the proportion of students in the national cohort achieving higher or lower GCSE grades in that year. At present such objective and independent evidence is not available when GCSE awards are made.
- 3.31 The outcomes of the 2017 test will not be used in the first year of awarding the first new GCSEs; these outcomes will provide baseline data to help identify changes between cohorts in future years.
- 3.32 We are considering establishing an expert committee to advise us how the evidence provided by the national reference test outcomes each year should be interpreted by the exam boards in their award of GCSEs.

## **4. How the new grades should be understood**

- 4.1 It is for others to decide how they use qualification grades. Our focus is primarily on the maintenance of standards. We consider the needs of users and have surveyed employers to understand how they use GCSE grades.<sup>13</sup> One in four told us they find GCSE grades useful in selecting candidates, particularly when they are recruiting school leavers. They are most used by employers recruiting to intermediate, 'white collar' occupations.
- 4.2 Of the employers that use GCSEs for recruitment and selection, 62 per cent look for applicants with specific grades in particular subjects and 43 per cent for a minimum number of grades, typically two to three GCSEs including English, maths and sometimes a science subject.
- 4.3 GCSE grades are used by employers who are looking for a minimum level of subject knowledge or who are looking for an indication of an applicant's abilities. GCSE grades are also used to help employers differentiate between candidates and to reduce the pool of applicants.
- 4.4 Further and higher education institutions use GCSE grades to help them select candidates onto their programmes. Their requirements vary, according to the course for which they are recruiting and selecting students. A further education college may, for example, require grades A or B in a specific subject to progress to an A level in that subject, grade C in maths and English language to progress onto any programme or a minimum of five GCSEs at grades A\*–C. Some universities currently require applicants to have a number of A\*s for entry to the most competitive courses.
- 4.5 The Government has for many years used GCSE grades as one of the ways by which it holds schools accountable at Key Stage 4, with a strong focus currently on students achieving at least a grade C in five subjects including English and maths. The Government is planning to change the way schools are held to account, to focus on the progress made by pupils from the end of primary school (Key Stage 2) to their score across a suite of eight subjects at the end of Key Stage 4.<sup>14</sup> We appreciate that this will be essential for schools to know what is expected in future, and how pupil progress will be assessed once the

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<sup>13</sup> [www.ofqual.gov.uk/documents/bmg-research-with-employers-on-new-gcse-grades](http://www.ofqual.gov.uk/documents/bmg-research-with-employers-on-new-gcse-grades).

<sup>14</sup>

[www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/269438/update\\_progress\\_8\\_measure\\_secondary\\_school\\_accountability\\_framework\\_reforms.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/269438/update_progress_8_measure_secondary_school_accountability_framework_reforms.pdf).

GCSE grade scale changes. We will continue to talk to the Government about the implications of the new GCSE grading approach for its accountability policy.

- 4.6 Students are, of course, interested in the grades available. They may be motivated to achieve a particular grade, either to enable them to progress to a specific destination, or for their own satisfaction.
- 4.7 Our proposal to use grade C as a reference point should help users who are content with the standard of performance required for a grade C. They will be able to identify students who might have been expected to have achieved at least a grade C had they taken current GCSEs, that is, those who achieve at least a grade 4 in the new qualifications. It does not, of course, follow that the students will have demonstrated the same knowledge and skills as students who had taken the current GCSEs, as the content and the way in which it is assessed will be different.
- 4.8 The approach will also give those who do not consider the level of performance indicated by a grade C to be high enough for their needs to set a more demanding requirement. They will have five higher grades to choose from (5–9), rather than the current three (B–A\*). It is possible that, over time, some users who currently look for a C grade to target their requirements will instead seek a grade 5. This would require a performance higher than the minimum required at present for the award of a grade C.
- 4.9 Users seeking the highest standard of performance would ask for a grade 9.

## 5. Equality analysis

- 5.1 We have published our equality analysis that informed our decisions on the design, assessment and grading of new GCSEs.<sup>15</sup>
- 5.2 Before taking the decision to grade the new qualifications 9–1, we considered the potential impact, both positive and negative, on students who share protected characteristics, as defined by the Equality Act 2010, namely: age, disability, gender reassignment, marriage and civil partnership, race, religion or belief, sex and sexual orientation. The DfE considered the potential impact on students who share protected characteristics of its proposed content for new GCSEs before finalising it.
- 5.3 We have now 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.
- 5.4 Under our *General Conditions of Recognition*,<sup>16</sup> we require exam boards to design assessments in such a way as to minimise any disadvantage that may be suffered by students with protected characteristics.<sup>17</sup> We also require that exam boards put in place arrangements which allow reasonable adjustments to be made for students with disabilities when taking assessments.<sup>18</sup> We will be asking exam boards to demonstrate how they have taken such equalities considerations into account in the assessment strategies which they will be required to put in place for the new GCSEs.
- 5.5 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.
- 5.6 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

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<sup>15</sup> [www.ofqual.gov.uk/documents/equality-analysis-report-on-reforms-to-gcses-from-2015](http://www.ofqual.gov.uk/documents/equality-analysis-report-on-reforms-to-gcses-from-2015).

<sup>16</sup> [www.ofqual.gov.uk/documents/general-conditions-of-recognition](http://www.ofqual.gov.uk/documents/general-conditions-of-recognition).

<sup>17</sup> General Condition E4.2.

<sup>18</sup> General Condition G6.2.

have taken those assessments. The grade awarded to each individual student solely reflects the performance of that student in that assessment.

- 5.7 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.
- 5.8 We have not identified any potential negative impact on students who share any of the protected characteristics that might arise from our proposal that the grade boundaries of the new GCSE grades should be determined statistically, nor have we identified any negative impact resulting from our proposals to use particular existing grades as reference points for grades in the new GCSE qualifications.

## 6. Responding to the consultation

To evaluate responses properly, we need to know who is responding to the consultation and in what capacity. We will therefore only consider your response if you complete the following information section.

We will publish our evaluation of responses. Please note that we may publish all or part of your response unless you tell us (in your answer to the confidentiality question) that you want us to treat your response as confidential. If you tell us you wish your response to be treated as confidential, we will not include your details in any published list of respondents, although we may quote from your response anonymously.

### About you\*

#### Your details:

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**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

1. 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) 1

Option (b) 3

Option (c) 2

Please give reasons for your answer

We know research has shown that whilst professional judgement is useful in validating expectations it is not precise enough to be able to specifically determine grade boundaries. Moreover, in Option (b) professional subject experts would be faced with a very challenging task in the first year – drawing comparisons where there have been significant changes to the criteria and potentially very different looking assessments. This would likely result in serious fluctuations in the attainment outcomes and would be difficult to rationalise in terms of fairness to the learner. This would further be complicated by the expected dip in performance when a new form of assessment is introduced.

Option (c), whilst appealing in as much as it would simplify a very complex system, would be unfair to learners. Arguably when changing the content and level of demand, the only kind of standard that can really be maintained through the transition is a normative one. However, as a standards maintenance methodology, it would result in learners in a particularly strong year group having less chance of securing a grade than if the same learners sat the qualification in a different year. This is particularly pertinent during change: changing entry patterns as a result of qualification reform makes entries unstable within and between schools and thus the rank order of learners' performance will be extremely volatile. This approach will also make it difficult for end users such as employers, FE and HE to make comparisons between year groups.

From the consultation document we understand that the use of 'statistical information' in Option (a) refers to the use of concurrent and prior ability data to equate the legacy and new qualification grades. Essentially we see this as a nuanced form of norm referencing. This approach is likely to create a tension between the attainment outcomes and required performance standards.

The tension we foresee is that there will be stakeholder expectations of a specific grade performance standard, but the statistical information may place that grade boundary higher or lower than what would constitute a representative performance to fairly reward a cohort of learners for their perceived prior or concurrent ability. This may undermine the intention of the reformed qualifications to raise standards in performance.

In spite of these challenges, we believe that Option (a) is the fairest Option for learners during this time of change. It provides a meaningful link between the legacy qualifications and the new qualifications at a cohort level in so much as if you were a 'C' grade learner in 2013 the likelihood of obtaining a '4' is broadly similar. By establishing this link or 'equivalence' we will give learners taking either qualification an equal opportunity to progress in their lives. In adopting this approach it would be essential that as an assessment community there is transparency in outlining what the awarding system can and cannot deliver.

2. 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

As outlined in our response to Question 1, we feel it is essential that even in a period of national realignment of standards a benchmark exists between old and new standards so that end users, such as employers and colleges, can make sense of learner grades - past and present.

For many stakeholders the existing C grade has been an important grade in terms of its role as a gatekeeper for selection. The focus of this specific grade is likely to

change in future years, however it is useful at this point in time to make the link between this grade and a grade on the new grading scale.

Linking grade 4 to the current C grade will provide further grades at the top end which will allow for greater differentiation from the current C grade upwards. This is aligned with the requirements that have come out of our research with stakeholders and the Pearson World Class Qualifications Expert Panel.

There is also a simple practical consideration. The regulator has a key responsibility for ensuring that the selection of a particular awarding organisation's specification by a school results in no systematic bias in learner outcomes. Currently the only means for reliably achieving comparability between awarding organisations is by determining historical attainment standards and benchmarking awarding organisations to it.

3. 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

In principle, if each grade point on the new scale and its relationship to the grading points on the legacy scale is to be understood by all stakeholders, it would be sensible to make reference across the grading scales. However there are a different number of grades in the new system, and so direct points of reference could not be made across all grades. In addition to grade C there are two other points on the current scale which are awarded. We believe these should be anchor points too – see our responses to questions 5(a) and 5(c) below.

We must, however, be cautious in any communications that state or imply links between current and new grades. Current intermediary grades are not awarded in the same way as A, C & F and therefore our understanding of the performance standards for the current grades A\*, B, D, E & G has not been established. As a result to changes to the performance measures, which will recognise learner distance travelled, each grade on the new grading scale is likely to have more significance than the current A\*-C grades. It is therefore imperative long term that the awarding process is developed to recognise the importance of maintaining grade standards at each grade.

Adopting this will be a fundamental difference to our current awarding process thus careful technical and operational consideration must be given to how this would operate and provide confidence in the maintenance of standards activities.

4. 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

We agree that it is essential that the new qualifications can be benchmarked against international standards. We also agree, given the relationship between grade C and grade 4 proposed in this document, that it is sensible to align the standards between grade 5 and international standards. The term 'alignment', however, needs some exploration.

It would be possible to align international standards in a few different ways, through:

- the design of the qualification
- shared performance expectations from the assessments
- using data to inform where the grade boundaries are set
- reporting how the outcomes relate to international outcomes
- a post award qualitative comparison of learner performance

Pearson has already taken account of international performance in the design of the new GCSEs (9-1) using a systematic review of high performing jurisdictions comparable qualifications and assessments appropriate to the subject.

There is currently a process underway to construct a grade 5 descriptor (for the new GCSE (9-1)) using a variety of international descriptors to inform performance expectation in the new GCSE across awarding organisations. It is sensible to take into consideration how other countries describe their standards, but we must be mindful of the following differences:

- Many international descriptions are not equivalent in terms of the year groups used, or whether they are based on externally marked high stakes examinations or the proximity of subject constructs.
- In many countries grade descriptors work independently of standard setting processes, and therefore are used for indicative purposes only, and not actively.

We are cautious about many of the assumptions and mathematical calculations that underpin proposal for how alignment with international standards might be achieved. The metrics outlined in the consultation for linking international standards to the GCSE require detailed technical consideration. It is essential that the assumptions behind data sets are thoroughly tested before alignment with international benchmarks is integrated into the new GCSE standards setting and maintenance methodology. For this reason we would also advocate that the international benchmarking activity is **not** built into any activity that would inform where the grade boundaries are set.

The statistical comparisons between PISA and GCSE achievement in '*PISA 2009 Study: how big is the gap? A comparison of pupil attainment in England with the top performing countries*' are interesting but not totally valid. There are four reasons for this:

1. There is an assumption that the constructs of the PISA tests are the same as GCSE. They are not. PISA tests assess mathematical, scientific and reading literacies and competencies which are significantly different to the subject criteria for GCSE.
2. The sample of learners taking PISA tests in this country is likely to be unfamiliar with the different content/assessment constructs. This is not the case in many other countries, where either their curriculum or assessments are more similar to PISA, and/or they are arguably better prepared for the tests.
3. It is inaccurate to compare whole country results with those of small jurisdictions or selected parts of countries – as shown in PISA league tables.
4. The DfE calculations compare the differences in PISA to 'best eight' GCSE capped point scores. There may be correlations on these two sets of data, however there are not necessary direct relationships for example: the way in which PISA point scores and GCSE performance table point scores are calculated is different. PISA is a Rasch based arbitrary scaled measurement, while GCSE grade point score differences (6 per grade) assume equidistance between grades (grades are awarded using non IRT performance data and script scrutiny).

The comparison of international 'standards' needs to take into account more than a simple comparisons of PISA scores – content standards and performance standards should also be taken into account from the national assessments of high performing jurisdictions. It should be noted that often high performing countries do not have examinations or qualifications at 16.

5. 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

Useful            Yes

Linking grade 7 with the current grade A would establish a clear link between current grades and new grades that will help all users – students, parents, employers, FE and others – understand in the initial year(s) the new grading system.

Linking grade 7 to the current A allows for more differentiation at the top end than is currently available. It also allows for an increase in differentiation between the current A and C grades with an additional grade point. This is aligned with the requirements that have come out of our research with stakeholders and the Pearson World Class Qualifications Expert Panel.

It is important to note, however, that in some subjects, the proportion of learners at A is already very low. With the inclusion of two grades above the current A rather than one (the A\*) there will be an increased risk of grade misclassification.

- (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      No

Useful            No

It should be noted that there are many subjects in which the proportion of candidates achieving A\* currently is very low. If our aim is to differentiate candidates between grades 7 to 9 our recommended approach is split the grades above grade 7 into two equal groups – either by the proportion of learners or grade widths. This would also minimise the potential for grade misclassification.

It is unclear from the consultation whether there is a desire to divide the grading scale into equal grade widths (eg the equal distances between each grades based on the number of total marks on an assessment) or equal grade proportions. Currently the system calculates arithmetically the grade widths based on the distance between the judgemental anchor points. It is essential that the decision as

to how to split the grades for these top grades is informed by detailed modelling of the impact of the two different approaches.

Following on from our answers to question 2 and 5a we would be anchoring the current proportion of learners with a C to 4 and A to 7 with the possibility of the interim marks being arithmetically calculated based on grade width in the first year or calculated based on prior grade proportions.

Essentially by fixing the grade 9 to the current proportion of A\*s is to create an A\*\* grade reference point. Given that the A\* is currently arithmetically set, our understanding of the performance standards at this grade is not well established. Therefore the purpose of the top grade needs to be defined so that the appropriate standards setting methodology can be applied in the first and subsequent years.

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- (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      No

Useful            No

Please give reasons for your answers

With only three grades below the C anchor at 4 there will need to be a redistribution of the four current grades D, E, F & G to align with the new grading scale. The bottom of grade 1 should align with the bottom of the current grade G.

We recommend that the method for the distribution of grades (either equal grade widths or equal proportion of learners) is the same as adopted for the higher grades This does, however, carry the risk that some learners who would have got a grade F (second lowest grade) will get a grade 1 (lowest grade) in the new grading scale, with the top of grade 1 being set at a specific point within the current grade F.

The purpose of these grades therefore needs to be taken into account before a decision is made as although very few stakeholders currently use these grades to discriminate for selection we strongly believe that learners should be rewarded performance at this lower end – indeed with changes to the performance measures we will expect these lower grades to have more meaning for schools.



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

Yes.

If yes what are they?

In principle, if each grade point on the new scale and its relationship to the grading points on the legacy scale is to be understood by all stakeholders, it would be sensible to make reference across the grading scale.

In order to maximise differentiation in the new grade scale we strongly recommend that, once the key reference points are agreed after the first examination series we should seek to divide the intervening grades equally providing some notional reference between the current intermediary grades and new intermediary grades. It would be necessary, however, to release these reference points with the caveat that performance standards at the interim grades are not awarded in the same way as A, C & F in the current grading system.

Adopting this will be a fundamental difference to our current awarding process thus careful technical and operational consideration must be given to how this would operate and provide confidence in the maintenance of standards activities.

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

Yes

Please give reasons for your answers

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.

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

G

As outlined in our response to 5c whilst there is little current differentiation between the F and the G grade, the G grade does hold motivational meaning for learners at this lower end. The bottom of Grade 1 should therefore be aligned with the bottom of the current Grade G and the top of Grade 1 should be placed at some point in the current F grade to allow for sufficient differentiation between the current D and E grade learners in the new grading scale, set at equal grade widths or proportions

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

It is essential that the approach to setting grades is consistent and transparent. By failing to define the grading scales and equivalences/reference points in advance of the assessment design there is a real risk that the grade outcomes seen in the live implementation of the qualification do not reflect the expectations of stakeholders.

In relating grade 4 to the proportion of learners currently achieving grade C and therefore impacting the proportion of learners that achieve all other grades it is inevitable that the differences in grade distributions between subjects under the current system will be replicated in the reformed GCSEs. Whilst this is not a technical awarding concern and this is not a new debate it may have an impact on stakeholder perceptions on demand and potentially subject take up.

10. 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.....

We see a national reference test being a useful tool to establish learner ability to support the maintenance of standards in our new GCSEs. The implementation of the national reference test requires very detailed technical and operational consideration in terms of the awarding process. It is essential that this is agreed prior to the first assessments in 2017.

We agree that the national reference test should not be used to set standards in the first year of the awards in 2017. Thorough technical consideration must also be given to the sampling parameters to provide valid evidence to use during the future awarding process. It is also important that factors, such as the dip in performance for first assessments, are considered in the roll out of the national reference test.

The link between the national reference test and subjects other than English and Maths requires detailed technical consideration. 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.

It would be possible to use the reference test to set grade distributions for English and Maths, generate ability estimates for every learner and then use this to construct a prediction matrix for performance in other subjects – however it would require detailed interboard detailed research to pursue this approach.

It is essential that awarding body representatives are part of the expert committee established to advise how the national reference test outcomes should be interpreted to ensure that the recommendations can be integrated into the awarding system effectively and do not put at risk awarding bodies delivery of results by published results dates.

11. 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?

.....

## Appendix A: How GCSE grades are currently awarded

We do not set grade boundaries for assessments. This is carried out by the exam boards which convert students' marks from across their various GCSE units (exams and controlled assessment) into a single grade from A\* to G. Our role is to establish the process by which the exam boards arrive at these decisions and to oversee that process to ensure that standards are maintained.

Each exam board must have in place an awarding committee whose function it is to set the grade boundaries in regard to each assessment. After each exam series, the awarding committee meets for the syllabus being awarded to consider the evidence and recommends where the grade boundaries should be set. The awarding committee includes:

- a) The chair of examiners who is responsible to the exam board for maintaining standards across different specifications in a subject within a qualification and from year to year. The chair leads the awarding process and recommends grade boundaries for each unit within a specification to the exam board.
- b) The chief examiner who is responsible for a specification to the chair of examiners for ensuring that the exam as a whole meets the requirements of the specification and maintains standards from one year to the next.
- c) Principal examiners who are responsible for setting papers/tasks and the standardising of marking.
- d) Principal moderators who are responsible for the moderation of internally assessed (school-marked) units (such as GCSE controlled assessment).
- e) An exam board officer who manages all stages of the examining process.

All these personnel must have the necessary subject, assessment and wider educational expertise in order to fulfil their respective roles. Their appointment is at the discretion of the exam board. However, the exam board must comply with Condition A5.2 in our General Conditions which states that exam boards must establish and maintain arrangements to ensure they retain a workforce of appropriate competence.

Examiners and moderators allocate marks, not grades. The task of the awarding committee is to convert students' marks into a single grade from A\* to G.

After all of the assessments have been marked the principal examiners and principal moderators may be asked by the exam board to propose preliminary ranges of marks at the key grade boundaries for each component/unit. Grade boundaries are set on each unit in turn. Boundaries for three of the eight GCSE grades – A, C and F – are

set in this way. These are called judgemental grade boundaries because their setting requires the exercise of judgement on the part of awarders using the types of evidence described below. The other boundaries are calculated arithmetically, relative to the judgemental grade boundaries.

The exam board must select candidates' work covering the expected range for each judgemental grade boundary, based on the available statistical and technical data, and informed by the principal examiners' and principal moderators' proposed preliminary ranges of marks, when they have been requested. Typically this range could span between three and seven marks.

The exam board seeks to balance the professional judgment of the awarders and the available statistical data. The main types of evidence they use to reach their judgements are:

- samples of students' work from that exam series, and samples from previous exams where they are a valid reference point;
- reports from senior examiners and moderators about how well assessments have worked in practice;
- grade descriptions – these define the typical performance levels expected at the judgemental grades; and
- statistical information – this includes the predictions about how well this cohort of students will do based on their attainment in Key Stage 2 assessments, results from previous exam series, and teachers' estimated grades for their students.

Grade boundaries can and do differ across exam series. This can be for a number of reasons. For example, the same unit in different series may be assessing similar content, but will have different questions, or have similar questions based on different source material, which may have different levels of demand. Mark schemes also change to reflect differences in the questions and tasks being set, and marking may be more or less lenient. This will also need to be taken into account. So a student getting a mark of 44 in one exam may be demonstrating the same level of attainment as one getting a mark of 41 on a different exam or controlled assessment. Another example may be where questions or tasks that are set 'malfunction', meaning that the people who set it thought that students would be able to understand and respond to it, and they simply failed to do so.

We developed our maintenance of standards work by adopting a 'comparable outcomes' model for GCSEs. By 'comparable outcomes' we mean the proportion of students achieving each grade in a qualification. So if we aim for comparable outcomes, and all other things are equal, then roughly the same proportion of

students will achieve each grade as in the previous year. We would still expect to see year on year variation, but we would also expect to see variation in both directions – some subjects to be up on the previous year and some subjects to be down.

To help achieve comparable outcomes for GCSEs, exam boards use statistical predictions based on prior attainment at Key Stage 2. Year 6 pupils (11-year-olds) in maintained schools in England take tests in English and maths. Until 2008 they also took tests in science. These are referred to as National Curriculum tests, Key Stage 2 tests or SATs. Predictions are based on ‘matched candidates’ within the whole cohort entered for each particular GCSE qualification. Matched candidates are GCSE candidates who can be matched to a prior attainment measure, in this case Key Stage 2 outcomes. This is their average attainment overall, not their achievement in any particular Key Stage 2 test.

The comparable outcomes approach is only a tool for seeking to ensure that exam standards are maintained. It does not prescribe the judgement of experts (when awarding) as to where the proper grade boundary lies in any particular qualification in any particular year. Where an exam board’s proposed results are out of tolerance with its predictions (as agreed beforehand with us), the exam boards will have to consider whether this is justified by reference to any genuine increase or decrease in standards of attainment.

Any alterations to provisional awarding decisions are made at the exam board’s discretion. However, we also have the power under Condition H4 of the General Conditions to specify requirements in relation to grade boundaries that we may believe to be inappropriate based on the information we have gathered from all of the exam boards in relation to the same qualification.

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