



Department
for Education

16-19 Accountability Headline Measures: Technical Guide

For changes in 2016

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Introduction

1.1. We are reforming the school and college accountability systems to set higher expectations, and to make the system fairer, more ambitious, and more transparent.

1.2. We need high quality 16-19 education and training to ensure young people are equipped to go on to higher education or sustainable employment. To secure this we need an accountability system that encourages high quality provision for all students, supports students in making informed choices, and identifies poor performance quickly. The government recently published its [plans for a reformed 16-19 accountability system on GOV.UK](#).

1.3. To achieve these aims a set of five headline measures will be published in 16-18 performance tables. The headline measures are **progress, attainment, progress in English and maths** (for students without a GCSE pass at A*-C in these subjects), **retention, and destinations**.

1.4. These measures will provide a rounded picture of provider performance which will be used in a range of ways: informing student choice; informing a provider's own self-assessment and benchmarking; informing Ofsted's inspection regime; and informing government's performance management of the 16-19 sector.

1.5. This technical guide aims to give school sixth forms and colleges all the information we can publish at this time to help them understand the 16-19 headline measures. However, the measures are still under development and we will publish more information as it becomes available¹. The technical guide does not change any previously announced policy. It provides additional information on how the five headline measures will be calculated.

1.6. The new 16-19 accountability system begins in 2016. For students starting two year 16-18 courses this means the new accountability system will apply to outcomes for students starting courses in September 2014. The outcomes will be reported in 16-18 performance tables in January 2017.

Expiry or review date

1.7. This guide will be reviewed in 2015 after experimental data on some of the new measures has been shared with schools and colleges.

¹ Any queries should be directed to the DfE enquiry line on 0370 000 2288. However, no further information on the methodology is available at this time

Who is this advice for?

1.8. This advice is for:

- Local authorities
- School and college leaders, school and college staff and governing bodies in all maintained schools, academies and free schools with a sixth form, sixth form colleges and general further education colleges.
- Ofsted inspectors, education advisers and brokers, regional school commissioners, FE advisers and the FE and SFC commissioners

Note on allocation

2.1 In the current performance tables, results are allocated to the provider where the student took their highest volume of examination entries in the reporting year. This approach limits the reporting of a student's achievements to a single provider over the 16-18 study period.

2.2 Historically these principles have served us well because movement between providers among level 3 students is not common². However, movement among students taking qualifications below level 3 occurs more frequently. In light of the increased coverage of the 2016 tables, it is important that we investigate new approaches to allocating results which enable us to hold to account more than one provider. It is our aim to more closely align the performance tables' allocation principles with the 16-19 funding formula.

How allocation may work

2.3 Results would be allocated to the provider which is directly funded by the Education Funding Agency (EFA). This is where the student has enrolled to take their core aim, recorded in the school census and Individual Learner Record (ILR).

2.4 Results related to subsidiary aims that may be delivered elsewhere would still be reported against the 'core' provider since they are responsible for that student's overall study programme.

2.5 Results would be allocated to providers on an annual basis. However, outcomes will continue to be reported when a student has reached the end of their 16-18 studies.

2.6 This approach is subject to further exploration and impact assessment against all headline measures. It requires information from a range of sources that have different collection cycles and are not currently used in the performance tables. We need to assess the availability and quality of this information. The methodology will be developed as part of an experimental statistical release towards the end of 2015 (see timescales for implementation). This will give us time to gather views from the sector and ensure the allocation rules are fit for purpose.

² Whilst movement among the level 3 cohort is not common, it does occur. When a student moves from an academic to a vocational pathway (or vice versa), the former achievements are not reported against the latest provider so that the latest provider is not held to account for qualifications delivered elsewhere.

Headline measures

3.1. Effective education systems around the world have high levels of autonomy with clear and robust accountability. OECD evidence shows that strong accountability is an important part of improving students' achievement. Our new headline performance measures will shine a light on the progress that students make while at a school or college. This is a fairer reflection of how the school or college is performing than looking only at the grades that students achieve. It encourages schools and colleges to focus on achieving the best outcomes for all students, irrespective of their starting points.

3.2. The five headline measures are:

- Progress (a value added progress measure for academic and Applied General qualifications and a completion and attainment measure for Tech levels and substantial vocational qualifications at level 2)
- Attainment
- English and maths progress measure (for those students who have not achieved at least a grade C at the end of key stage 4)
- Retention
- Destinations

Progress (and a combined completion/attainment measure)

4.1 The progress of students will be the main focus of the future accountability system. Not only will progress measures be one of the new five headline measures of performance, but they will also form the basis of minimum standards. The progress measure will show separate values for:

- Level 3 academic programmes
- Level 3 Applied General programmes
- Level 3 Tech Level programmes
- Level 2 Substantial Vocational Qualification programmes

The academic and Applied General scores will be calculated using a level 3 value added measure. The Tech Level and level 2 scores will use a completion and attainment measure.

New level 3 value added methodology

4.2. For academic and Applied General qualifications we will use a value added progress measure in 2016 performance tables to show how well students have progressed when compared with students with the same prior attainment. Progress will be shown separately for academic and Applied General qualifications. The main changes to the existing value added measure include how we define the prior attainment of a student and the method for calculating national average levels of progress.

4.3. The level 3 value added measure will show the progress each student makes between key stage 4 and graded level 3 qualifications (excluding Tech Levels) compared with the actual progress made by students nationally who had the same level of attainment at key stage 4. Students will be compared with other students studying the same qualification nationally before being aggregated to give an overall score for a provider. This score will be expressed as a proportion of a grade above or below the national average e.g. students achieve half a grade lower than the national average.

How the new measure will work

4.4. For all students we will work out their average attainment at key stage 4. For the level 3 academic qualifications progress measure students' prior attainment will be based on their average attainment in GCSEs only. For the level 3 Applied

General qualifications progress measure students' prior attainment will be based on all qualifications achieved at key stage 4. Our analysis has shown that these are the most effective baselines that can be consistently applied in the calculations.

4.5. Only qualifications achieved during key stage 4 will be included in the prior attainment calculation. Re-sits or additional qualifications gained during the 16-18 study phase will not be included. This ensures a consistent baseline for all students.

4.6. To calculate the progress made by students taking the same qualification nationally we will first divide students up into 20 bands based on their prior attainment. We will then calculate the average attainment for each of these bands. This allows us to compare a student's result with the average result of students with equivalent prior attainment taking the same qualification. The difference between the two is the student's value added score in that qualification. Annex A1 has an illustrated example of how this works.

4.7. The students' value added scores will then be aggregated to create separate scores for academic qualifications and Applied General qualifications for each school or college.

4.8. The supporting information will allow providers to see value added scores for specific qualifications and qualification types (e.g. A levels).

4.9. All results will be shown with confidence intervals.

Minimum standards

4.10. Minimum standards will be set separately for level 3 academic and Applied General qualifications using the respective school or college value added scores and associated confidence intervals.

Completion and attainment measure

4.11. We cannot use a value added progress measure for level 3 Tech Levels and Substantial Vocational Qualifications at level 2. This is because there is a weak relationship between students' average key stage 4 result, which is mainly made up of academic subjects, and their results in these qualification types. Instead we will use a combined completion and attainment measure. The measure will compare the attainment of students with the national average attainment for each qualification. Any student who fails to complete the subject studied will be treated as a fail. The scores for each qualification will be aggregated to give an overall provider score expressed as a proportion of a grade above or below the national average. This methodology is subject to further exploration of the quality of the data.

4.12. We will re-examine the feasibility of developing a meaningful value added progress measure for vocational qualifications, once we have the data from the outcomes of graded Tech Levels in 2018.

How the new measure will work

4.13. Attainment in each qualification delivered by a provider is first calculated by adding up all the point scores for the qualification and dividing them by the number of students taking that qualification. Non-completion is treated as a fail and given a score of zero. A provider's attainment in a subject is then subtracted from the national average attainment in that subject to generate a score expressed as a proportion of a grade above or below the national average. Scores for each subject are finally aggregated to produce an overall provider score relative to the national average. For example, a provider may have a score of +0.5 in level 3 Tech Levels, meaning that on average in these qualifications, students achieve half a grade higher than the national average.

4.14. A separate completion and attainment score will be calculated for level 3 Tech Levels and Substantial Vocational Qualifications at level 2. A worked example is shown in the Annex C1.

4.15. All students who receive funding for a Tech Level or a level 2 Substantive Vocational Qualification will be included in the measure. The qualification does not need to be flagged as a student's core aim to be included. Students who withdraw within the funding "qualifying period"³ will not be counted in the measure. Where a student is recorded as having withdrawn from a qualification after the qualifying period they will be treated as having failed the qualification. This information will be sourced from the ILR and School Census data returns.

4.16. For all students who complete relevant qualifications we will assign a point score based on the grade that they achieved⁴. Fails and withdrawals will be given 0 points. The grading information will be sourced from the data supplied to the Department by awarding bodies. For many vocational qualifications this information does not include records of students failing qualifications. By including a completion element to this measure we are able to cover more students than otherwise would have been possible and increase incentives to help weaker students to complete their qualifications.

³ For programmes longer than 24 weeks the qualifying period is 6 weeks, for programmes that are 2 to 24 weeks the qualifying period is 2 weeks.

⁴ See annex D for further details on how grades map to point scores in the performance tables

4.17. Students who are shown on the school census or ILR as withdrawing from a Tech Level or Substantive Vocational level 2 because they are transferring to start an apprenticeship, traineeship or supported internship, will be excluded from the completion and attainment measure. This is so that there is no disincentive for students to take up opportunities to continue their training with employers as well as with schools and colleges.

4.18. Where a student transfers onto a different subject or qualification type within the same provider only the latest qualification will be included in the measure. For example a student who transfers from a plumbing qualification to a construction qualification at the same provider will only have their construction qualification included in the measure. Information on the number of cases where students have transferred onto lower level qualifications will be published as part of the supporting information for the retention measure.

4.19. Subjects which are only studied by a small number of 16-18 year old students nationally may not be counted in either of the measures to avoid small numbers of students distorting results. We will do further work to establish the appropriate definition of a small cohort under these new measures.

Minimum standards

4.20. The minimum standards for Tech Levels will take the form of a number of grades (or a proportion of one grade) below the national average.

Attainment

5.1. It is important to provide an indicator of schools' and colleges' overall attainment in different types of qualifications, which parents can easily understand and use to compare providers. The attainment measure will show the average grade that students attain. This builds on the average points score per entry data (expressed as a grade) that is currently published in performance tables.

How the new measure will work

5.2. Average points score per entry will be calculated and expressed as a grade (see Annex D for a breakdown of the point scores and grade equivalents). Separate average grades will be shown for level 3 academic, Applied General, Tech Level and Substantial Vocational Qualifications at level 2.

5.3. Outcomes will only be reported where a student has entered for an examination. Unlike the completion and attainment measure, withdrawals will not be counted as a fail.

English and maths

6.1. English and maths provide a vital foundation to enable students to progress to employment and further study. This measure will help the public hold schools and colleges to account for the progress of students in English and maths where they did not achieve at least a grade C at GCSE by the end of key stage 4.

6.2. Each student's progress in English and maths will be compared against the average progress made by students who have the same prior attainment in English or maths. This will set realistic benchmarks for students of all attainment levels. The outcomes of the measure will be presented in the same format as the main progress measures.

How the new measure will work

6.3. We will use the same style of "value added" calculation used in our other progress measures. This will show how much progress an institution has made with their students in comparison to the national average for learners with the same prior attainment. To make this comparison we will calculate the national average grade achieved during the 16-18 phase achieved by students with the same key stage 4 prior attainment grade, for example:

Calculation of student score

- For illustrative purposes, assume that nationally students who have previously achieved a GCSE grade E make on average 1 grade of progress (equivalent to achieving a D grade).
- In this illustrative example, if an individual student moves from an E grade to a C grade they would receive a value added score of +1 as they have made one grade's progress more than the national average.
- If the student moves from an E grade to a D grade they would receive a value added score of 0 as they had made average progress (average progress is always expressed as 0).

An example of how the calculation will work is shown in Annex C3.

6.4. The highest English and maths grade a student has achieved when they enter an institution will be the baseline for the calculation. This may be the grade a student achieved at key stage 4 or a grade achieved with a different institution at an earlier stage of 16-18 study. This ensures the measure only counts the progress an institution makes with a student to improve their English and/or maths.

6.5. We do not wish institutions to be disproportionately punished where a student is unable to enter for an English or maths exam or where factors outside of an

institution's control lead to a bad result. This will be achieved by applying a cap to the measure so that one grade worse than the baseline is the maximum negative value added score applied to an individual student, for example:

- A student who enters with a D grade but achieves an F grade when they retake will be treated as if they achieved an E grade;
- A student who enters with a F grade but does not sit the exam will be treated as if they achieved a G grade.

6.6. Applying this cap means that providers who take on students with poor motivation are treated fairly. This is important as the measure will include all students who do not have a C grade or above in English and/or maths regardless of whether or not they enter for an examination.

6.7. Stepping stone qualifications such as functional skills and free standing maths will be taken into account when calculating the progress made by students, but will not attract as many points as good GCSE grades. Attaining GCSE grades C or above will lead to the highest value added scores, and for students who already have a D grade or above, re-taking a GCSE and improving their grade will be the only way to gain a positive value added score . This aligns with the Government's ambitions for as many students as possible to achieve a grade C or above at GCSE English or maths.

6.8. Which stepping stone qualifications are eligible for funding, and hence are included in the progress measure, will be reviewed in future⁵. Further details on how stepping stone qualifications will be incorporated into the measure are shown in Annex B. In line with the conditions of funding students who have previously achieved a D grade at GCSE will be expected to take GCSEs rather than stepping stone qualifications.

6.9. Our aim is to publish a range of supporting information on this measure. This will allow providers to judge how well they are performing with students who have different levels of prior attainment. It will also highlight any differences in progress between students who spend different numbers of academic years at an institution.

6.10. We will analyse trends in student progress in English and maths over the next few years and review whether any refinements to the baseline of this calculation are required.

⁵ The condition of funding on maths and English qualifications list can be found at: [Condition of funding on maths and English: qualifications list - Publications - GOV.UK](#)

Retention

7.1. As the participation age is increased to 18 it is increasingly important that all young people are given suitable education and training opportunities that they see through to completion. We want providers to ensure that students study courses that match their ability and ambition; and that they remain motivated and engaged to complete their studies. The retention measure will show the proportion of students who get to the end of the programme of study that they enrolled on at a provider.

How the new measure will work

7.2. The retention measure will show the proportion of students who are retained to the end of the 'core aim' (or main learning aim) of their study programme at a provider. The retention measure will show separate values for:

- a) level 3 academic programmes
- b) level 3 Applied General programmes
- c) level 3 Tech Level programmes
- d) level 2 Substantial Vocational Qualification programmes

7.3. An overall retention value will not be shown at this stage due to the difference in typical retention rates for academic and vocational courses. Showing an overall value would disadvantage providers delivering larger amounts of vocational programmes. Other qualifications, including level 1 qualifications, supported internships and traineeships will not be reported in the headline measures at this stage.

7.4. A student's programme is defined based on their core aim. Withdrawing from supporting aims, such as GCSEs, will not stop them being counted as being retained on this measure. Similarly an A level student only needs to complete 1 A level to be counted as retained⁶.

7.5. The underlying definitions of the retention measure align with the funding methodology. For a student who undertakes a programme within a single academic year the funding retention factor and the 16-19 accountability retention measure will be calculated in exactly the same way. Students are counted as retained if they are recorded as having "*completed the learning activities leading to the learning aim*" on the Learning Aim Status Field of the School Census or the Completion Status Field of the ILR.

⁶ The A level that is completed must be in a subject other than General Studies or Critical Thinking.

7.6. Some programmes will be more than one year long. For example an International Baccalaureate is typically studied over two years. For a student to be counted as retained they must complete the learning activities for all relevant years of study for an aim.

7.7. If a student is studying a two year A level programme they must complete the learning activities for both years of at least one full A level to count as retained. Since the retention measure is calculated at student level it is not affected by the total number of subjects a student takes, or whether they only complete a subset of these. Enrolling a student for additional AS level subjects alongside A levels, or entering a student for AS level exams as well as A level exams in the same subject will not affect the retention calculation.

7.8. In order to retain flexibility for students, schools and colleges in their approaches to AS and A level enrolments, students only taking AS levels can still count as retained even if they do not take any subjects forward to A level. We do not expect many students to be taking AS level only programmes as most will progress to at least one A level. Where students are solely taking AS levels they can be counted as retained in year 12 provided they complete at least one AS level. We will publish separately supporting information on the proportion of level 3 students who return in year 13 (see paragraph 7.11). We are reviewing the arrangements for recording the new linear A levels and AS levels in the school census and ILR for the 2015/16 academic year.

7.9. Some students may take multiple programmes that are one academic year in length. In these cases they need to have been retained to their latest planned end date to count as being retained. A range of examples are shown in Annex C2.

7.10. Detailed notes on the retention methodology:

- a) The core aim of a student is defined within the funding methodology. The same definition will be used in the retention measure.
- b) Students who are not eligible for funding because they withdrew during the “qualifying period” at the start of their programme will not be included in the retention measure. For programmes longer than 24 weeks the qualifying period is six weeks, for programmes that are 2 to 24 weeks the qualifying period is two weeks.
- c) All withdrawals from a programme will be treated in the same way in the retention measure methodology regardless of whether they are related to educational reasons or not. This aligns with the funding methodology.

Supporting measures

7.11. Alongside the headline retention measure there will be a number of supporting pieces of retention data published in the performance tables.

- a) Level 3 students returning in year 13: This will show the percentage of students who return to the same provider in year 13 to continue their level 3 programmes such as A levels. Any student who is retained to the end of a level 3 programme in year 12 will be included in this measure.
- b) Students who are retained but not assessed: This will show the percentage of students who are successfully retained to the end of their course but do not appear in the attainment measure. These are students who reach the end of their programme of study but do not enter for the final exam. This allows monitoring of whether students are effectively completing their study rather than merely being enrolled at a provider for a certain period of time.
- c) Students transferring onto lower level aims: This will show the number of students who have transferred out of a substantive aim in order to continue study at a lower level at the same provider. This will help to highlight cases where students are originally being enrolled on a programme that is not right for them.

Destinations

8.1. Schools and colleges should be supporting and preparing their students for future education, training and employment. Including destination information in performance tables broadens the information available to the public and gives schools and colleges the opportunity to demonstrate other aspects of their performance. Destination measures are currently published as experimental statistics but the aim is for this measure to be published in performance tables as a public accountability measure.

8.2. There are still high percentages of activity not captured in key stage 5⁷ destination measures, partially due to limited employment and unemployment data from some local authorities. As improvements are made to the methodology of the measure, the data will be evaluated to establish whether the statistics meet the quality standards to be published as National Statistics and hence when it can be included as a headline measure in performance tables.

8.3. Once the data are deemed robust enough, the measure will show the overall figure of young people going into education, employment and training.

How the measure works

8.4. Destination measures show the percentage of key stage 5 students going to or remaining in an education and/or employment destination. The most recent data reports on students in the 2010/11 academic year and identifies their education and/or employment destinations in October to March of the 2011/12 academic year, see [Statistical First Release](#).

8.5. The destination measures cohort currently covers young people aged 16, 17 or 18 who were entered for A levels or other level 3 qualifications during the academic year. In the longer term it is our ambition that the cohort will be expanded to cover students entering substantial vocational qualifications at level 2.

8.6. To be included in the measure, young people have to be recorded in sustained participation in the 6 months from October to March after finishing their level 3 qualifications. This means participation in all of the first two terms of the academic year at one or more education destinations or for 5 of the 6 months in employment/training. Young people with a combination of education and

⁷ The term 'key stage 5' is used here to denote that the key stage 5 destination measures only capture the destinations of students who have taken A levels or other level 3 qualifications at this point in time.

employment meeting the sustained participation criteria, will also be included in the measure.

8.7. We publish a range of supporting information on this measure. This includes further breakdowns of the data such as more detail on education destinations, for example school sixth form, FE college and higher education institutions, and characteristics data, such as special educational needs and gender.

Wider qualification reform

English and maths

9.1. We are putting English and maths right at the heart of our education system. [Reformed GCSEs in English and maths](#) will be available for first teaching in schools from September 2015. These new GCSEs will both be more stretching at the top, and more practical than existing GCSEs. These new GCSEs will then be introduced into post-16 education in phases between 2015 and 2020. 16 to 19 study programmes - building on the Wolf Review's recommendations - ensure that students who don't get at least a C in English and maths GCSE by age 16 must keep on working towards them.

9.2. From September 2014, these requirements for English and maths will become [a condition of 16 to 19 funding](#). With effect from August 2015, we will amend the funding condition, so full-time 16 to 19 students with prior attainment of grade D in English and/or maths will take GCSE, rather than any other qualification in these subjects. These changes build on wider reforms under this government to put academic and vocational education on an equal footing. They will create a culture in which the majority of young people routinely leave further education with good GCSEs in English and maths.

A level reforms

9.3. We are reforming A levels to match the best education systems in the world and to keep pace with universities' and employers' demands. Evidence from higher education shows that new undergraduates lack some of the skills essential for undergraduate learning and that modular A levels have contributed to this. A levels will become linear (exam at the end of two years), allowing more time for teaching and learning.

9.4. As the first new A levels become linear from 2015, the AS will be entirely decoupled from the A level, ending the routine, automatic external assessment of students at the end of year 12 that places unnecessary burdens on students and teachers. The new A levels have been designed to allow awarding organisations to develop stand-alone AS qualifications taught over one or two years that can be co-taught with the A level. It will continue to be possible for students to take an AS in some subjects before deciding which to continue onto A level. Schools and colleges should support their students to decide what qualification to take.

Reform of vocational qualifications

9.5. We have taken action to reform vocational qualifications to ensure that young people know which qualifications are valued by employers and promote progression. By only recognising high-value vocational qualifications in performance tables, these reforms are encouraging schools and colleges to offer vocational qualifications that genuinely support progression to skilled employment and/or higher education. To be included in performance tables, qualifications must demonstrate tough new characteristics, set out in [Technical Guidance for Awarding Organisations](#). An annual process identifies the qualifications approved for inclusion in performance tables.

There are three vocational options for 16-19 year olds:

- Applied General qualifications are rigorous advanced (level 3) qualifications that equip students with transferable knowledge and skills. Taught from September 2014, they are for post-16 students wanting to continue their education through applied learning. They fulfil entry requirements for a range of higher education courses, either by meeting entry requirements in their own right or being accepted alongside and adding value to other qualifications at the same level.
- Tech Levels are rigorous advanced (level 3) technical qualifications, on a par with A levels and recognised by employers. Taught from September 2014, they equip students with specialist knowledge and skills, enabling entry to an Apprenticeship, other skilled employment or a technical degree. Backed by employers, they will equip young people with the specialist knowledge they need for a job in occupations ranging from engineering, to computing, hospitality to accountancy. In some cases they provide a 'licence to practise' or exemption from professional exams. Tech Levels are one of the components of the [TechBacc measure](#), which recognises the highest level of technical training. For courses taught from September 2014 it will measure the achievement of students taking advanced (level 3) programmes which include a Tech Level, Level 3 maths and an Extended Project Qualification.
- Substantial Vocational Qualifications at level 2 provide students aged 16 to 19 with a route into a skilled trade or occupation, where employers recognise entry at this level (most construction trades, care work and hairdressing, for example). They will also provide access to Tech Levels. Taught from September 2015, they require public backing from employers, giving students' confidence that the qualification they are taking is genuinely valued. Substantial Vocational Qualifications at level 2 support entry to a wide range of trades and practical occupations from plumbing to brick-laying, or horticulture to professional cookery. Like Tech Levels, they will offer students

the chance to acquire the skills and expertise needed for the real economy – and provide a passport to a good job or a great apprenticeship.

Independent and Special schools

Independent schools

10.1. Since independent providers are not funded by the EFA, a different approach to the allocation of results will need to be developed.

10.2. The completion and attainment measure will not be calculated for independent schools. This is because the Department does not hold sufficiently detailed information to calculate the completion element of the measure for these providers.

10.3. The retention measure will not be calculated for independent schools at this stage as we do not have access to the relevant data.

10.4. For the attainment measure, level 3 value added and English & maths progress measures information will be sourced from awarding bodies. This will allow us to calculate these headline measures for Independent Schools.

10.5. Destination Measures for independent schools will not be included in performance tables due to limited student level information. They will, though, continue to be produced in the Statistical First Release for independent schools where the cohort can be identified.

Special schools

10.6. Students who need more specialised teaching and facilities may go to special schools. Special schools with sixth form students may choose to have their results included in the 16-18 performance tables. Some special schools will have no results published for their students because they do not take the qualifications reported in these tables.

Timescales for implementation

11.1. The proposed timeline covers the publication of experimental statistics and sharing of post-16 pilot measures (see table). The aim is to fully test out the new methodologies and prepare the sector for full implementation of the 16-19 accountability reforms.

11.2. There are three types of data release described within the timetable:

- Experimental statistics - non-final methodology and data but published at school and college-level without restricted access to gather views from the wider sector.
- Pilot measures – non-final methodology shared with schools and colleges only. The methodology may not exactly replicate what is applied in the 2016 performance tables. The outputs are shared with providers to incentivise behaviour but since these are headline measures that will form part of the future accountability system, access is restricted to give them time to change their behaviour.
- Final – Publically available data on main performance tables.

Results year	Data release	Access	Status	Allocation rules	Publication date
2013 exam year (published 2014)	English and maths attainment (level 1 and 2)	Published	Experimental	Old	Mid-September 2014
2014 exam year (published 2015)	Average grade (academic and Applied General)	Schools/colleges only	Pilot	Old	Summer-15
	L3 progress (academic and Applied General)	Schools/colleges only	Pilot	Old	Summer-15
	English and maths attainment (level 1 and 2)	Published	Experimental	New	Autumn 2015
2015 exam year (published 2016)	Average grade (academic and Applied General)	Schools/colleges only	Pilot	New	Summer-16
	L3 progress (academic and Applied General)	Schools/colleges only	Pilot	New	Summer-16
	English & maths progress (replaces experimental SFR)	Schools/colleges only	Pilot	New	Summer-16
	Retention	Schools/colleges only	Pilot	New	Summer-16

	Completion and attainment (Tech Levels)	Schools/colleges only	Pilot	New	Summer-16
2016 exam year (published 2017)	Average grade (academic, Applied General & Tech Levels)	Published	Final	New	January 2017
	L3 progress (academic and Applied General)	Published	Final	New	
	English & maths progress	Published	Final	New	
	Retention	Published	Final	New	
	Completion and attainment (Tech Levels)	Published	Final	New	
2017 exam year	Substantial Vocational Qualification attainment (level 2 only)	Published	Final	New	Summer-18

Annex A: Additional technical detail

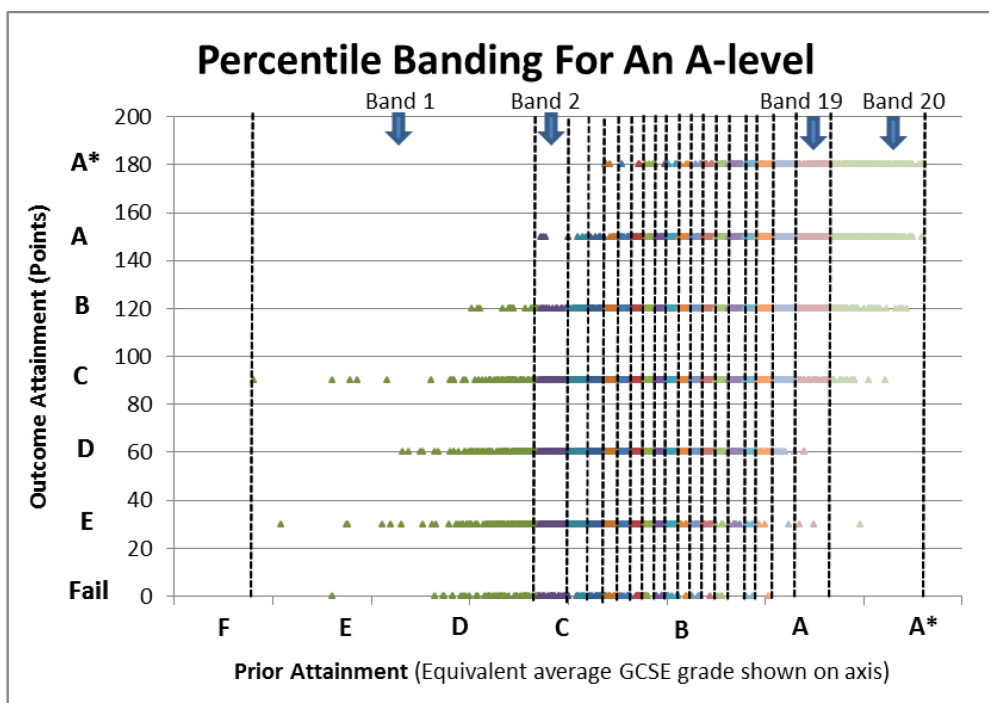
Level 3 value added - illustrated example of level 3 value added calculation

This annex gives an illustrated example of how the new level 3 value added calculation works. This example shows an A level but the methodology is equivalent for both academic and Applied General qualifications.

Stage 1 – Calculating the national average grade for comparison

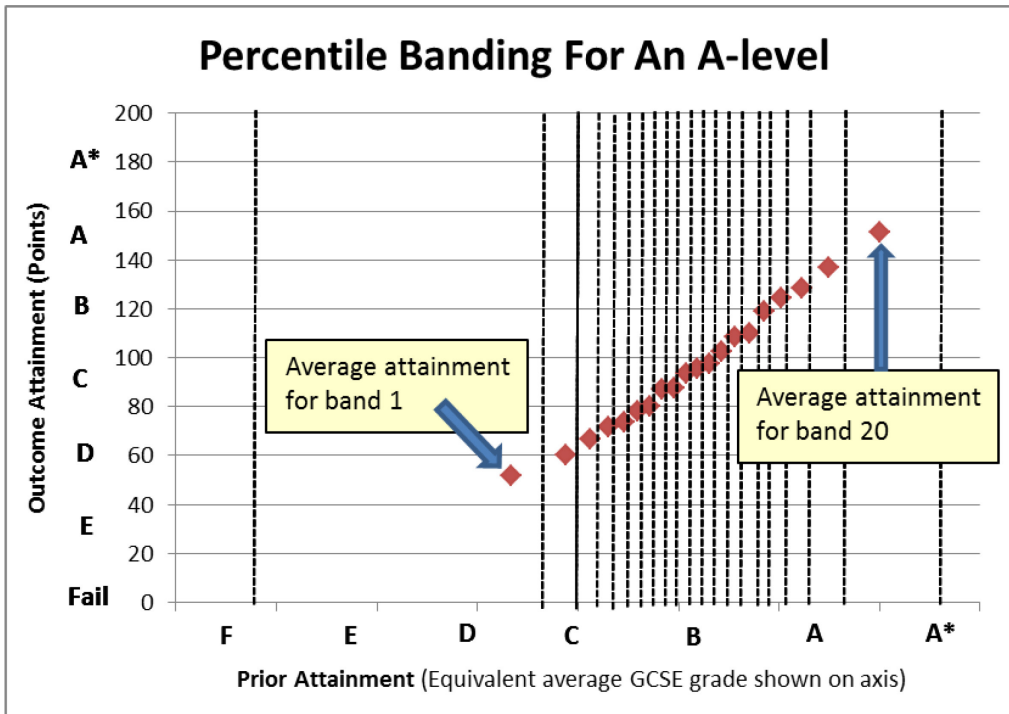
We start by taking data for a particular subject – for example A level Design & Technology. For each student taking this subject we calculate their average prior attainment at key stage 4 and what grade they achieved in the A level. We can then plot these on a chart and divide them up into 20 bands based on their prior attainment. Each band contains the same number of students.

The first band contains the 5% of students with the lowest prior attainment. These mainly achieved C, D or E grades in their GCSEs. The 20th band contains the 5% of students with the highest prior attainment. They mainly achieved A*, A or B grades in their GCSEs.



We can then work out the average attainment for each of these 20 bands. As prior attainment increases the outcome attainment will typically increase⁸. This reflects the way that students who get better grades at key stage 4 typically do better at 16-18.

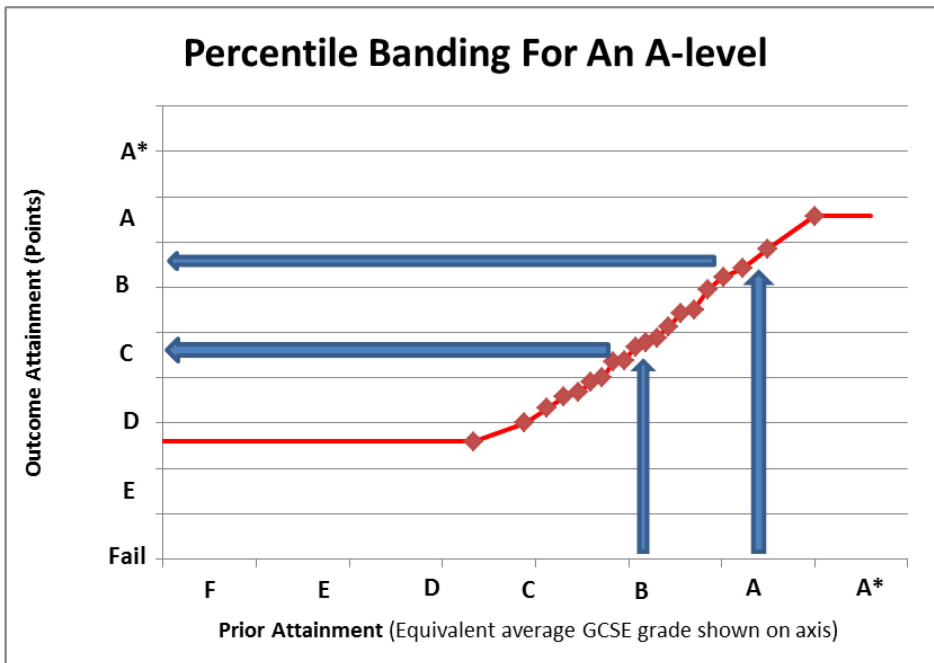
For band 1, the students with the lowest prior attainment, their average A level grade in this subject is just below a D grade. For band 20, the students with the highest prior attainment, their average A level grade in this subject is around an A grade.



We can then “join up” these averages⁹ to get a line of average attainment that factors in how students with higher prior attainment typically get better grades. For example students whose average prior attainment was equivalent to a B grade at GCSE average a C grade at this A level.

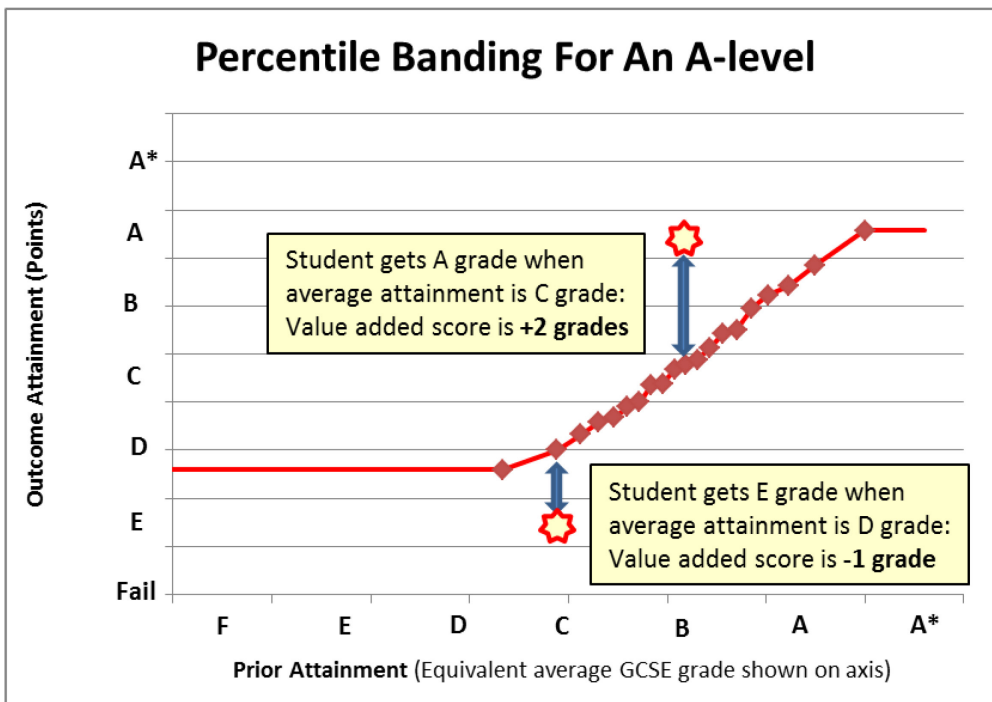
⁸ Where the outcome attainment does not increase steadily with prior attainment we will combine bands to create an average attainment based on a larger number of students. This will ensure a steadily increasing line.

⁹ The points are connected using linear interpolation.



Stage 2 – Calculating value added scores

This line of average attainment can then be used to calculate the value added scores. These are the difference between their actual A level attainment and the average A level attainment for students with the same key stage 4 prior attainment. For example if a student gets an A grade when the average attainment was a C grade their value added score is +2 grades.



This approach allows us to calculate average attainment in a way that closely aligns with the underlying data. This minimises any bias for certain groupings of prior attainment which can occur if a “line of best fit” is used.

Destination measure - further detail on methodology

Data from the National Pupil Database (NPD)¹⁰ are used to calculate the measure. The matching of the databases in compiling the NPD is undertaken at individual level using personal characteristics such as name, date of birth and postcode. The destinations are then derived from linking the data sources from the following year.

The [technical note](#) provides further detail on the methodology. Some of the key points of the methodology are also set out below.

There are three categories which cover students not included in the measure:

- Destination not sustained: This includes young people whose records show that for the majority of the 6 month period the student was participating in either an education or employment/training destination but did not have continuous participation October to March
- Destination not sustained/recorded 'not in education, employment or training' (NEET): This covers young people who were recorded as having education or employment/training participation in the year September to August, but did not have continuous participation from October to March, and had more than 2 months reported NEET in October to March. It also includes young people who have no activity recorded except for an indication of being NEET in the year.
- Activity not captured in the data: This includes young people who were not found in the source datasets. It includes students who registered at an institution but did not attend any learning activity.

Data on employment and NEET are currently taken from the National Client Caseload Information System (NCCIS) and cover young people for whom local authorities hold data. As data quality varies across authorities, the intention is to link HMRC and DWP data to the destination measures to obtain more robust employment and unemployment data. More will be known on this in 2015 and the technical note updated accordingly.

There can be duplicate students in the measure when students appear more than once in the cohort in the national pupil database (NPD), due to the matching process. These records are valid and will remain in the cohort for each school or college and therefore included in the measure. Although duplicates are included at school and college level,

¹⁰ The national pupil database (NPD) contains detailed information about pupils in schools and colleges in England. The data includes:

- test and exam results, prior attainment and progression at different key stages for pupils in the state sector
- attainment data for students in non-maintained special schools, sixth-form and further education colleges
- information on pupils in independent schools, where available

The database also includes information about pupils' characteristics, such as:

- gender; ethnicity, first language, eligibility for free school meals, special educational needs (SEN) and pupil absence and exclusions

some are omitted at LA and National level so that these young people aren't counted twice in the overall figures. It is accepted that some duplicates will remain in the data.

When linking students across destinations, it can be seen that a number of young people appear in more than one destination simultaneously. Processes were put in place to eliminate as many of these double counts as possible but a small number remain in the measure. More details can be found in the [technical note](#).

Annex B: Level 2 English and maths

Treatment of stepping stone qualifications

The Level 2 English and maths progress measure will be based on achievement of GCSEs and of selected stepping stone qualifications such as functional skills, free standing maths, English for speakers of other languages, and AQA use of mathematics. This annex shows how the GCSEs and stepping stone qualifications are used in the measure.

The measure uses a capped version of the “challenge points” from the performance points system. This gives the following mappings:

- a) a level 2 Functional Skill has 6 challenge points. These are capped at 4 points to be equivalent to a GCSE D grade and to retain the ability to suitably reward learners getting a C grade or above.
- b) a level 1 Functional Skill has 2.5 challenge points. This would be between a GCSE E and F grade. Other level 1 courses are capped at 2.5 points to align with the level 1 Functional Skill

By applying equal capping to all the stepping stone qualifications this ensures they have equal value in the measure. This means that the choice of which stepping stone qualification is correct for a student should be based solely on the student’s needs. The stepping stone qualifications are typically smaller than GCSEs; however we have not factored size into this calculation as all the qualifications have sufficient breadth to meet the existing requirements of funding.

GCSE		Functional Skills		Free St. Maths		ESOL		AQA Use Of Mathematics	
Grades	Points	Grades	Points	Grades	Points	Grades	Points	Grades	Points
B	6								
C	5								
D	4	L2 FS	4	All L2	4	All L2	4	A*-C	4
E	3								
		L1 FS	2.5	L1 A-C	2.5	L1 D/M	2.5	D & E	2.5
F	2							F	2

				L1 D	1.7	L1 Pass	1.5		
G	1			L1 E	0.8			G	1
Fail	0	Fail	0	Fail	0	Fail	0	Fail	0

The measure will only look at the highest value outcome a student has attained. A student achieving a level 1 functional skill and a GCSE D grade will be assigned 4 points in the calculation – the value of the GCSE D grade.

Annex C: Examples

C1: Example of how the Completion and Attainment measure works

Here is a simplified example of how the completion and attainment measure will work for an institution with 2 subjects and 9 students. First we calculate subject level attainment by adding together the point scores for each outcome. Students who withdraw before completing the qualification are treated as fails.

These subject level attainment scores are then compared with the national average to give a completion and attainment score for each subject.

In this example the institution has higher absolute attainment in plumbing than hairdressing, but worse relative attainment. This means there is no advantage from institutions entering students into subjects that are perceived to be easier.

These subject level relative attainment scores are then aggregated into overall completion and attainment scores for level 3 Tech Levels and level 2 Substantial Vocational Qualifications. For level 3 qualifications we convert from point scores to grades by dividing by 10.

	Entry	Outcome (Points)	Subject Level Attainment	Compare With National Average	Provider's Overall Score
Hairdressing (level 3)	Student A	Distinction (35)	Institution Average Point Score = 25 points (equal to a merit)	Hairdressing National Average = 24 points Difference = 25 - 24 = +1 point	Weighted Average = $(5 \times 1) + (4 \times -1.5)$ 5 + 4 = -0.11 points A score of -0.11 points is equivalent to being - 0.01 grades below average.
	Student B	Merit (25)			
	Student C	Pass (15)			
	Student D	Distinction* (50)			
	Student E	Fail (0)			
Plumbing (Level 3)	Student F	Withdrawal (0)	Institution Average Point Score = 27.5 points (just above a merit)	Plumbing National Average = 29 points Difference = 27.5 - 29 = -1.5 points	
	Student G	Distinction* (50)			
	Student H	Merit (25)			
	Student I	Distinction (35)			

C2: Retention – Examples of when students would count as retained

The following table gives examples of when students would count as retained (✓) or not retained (X) on the headline retention measure. For the purpose of this example the students are assumed to be doing a course over 1 or 2 full academic years and it is assumed that to complete their learning activities the student stays until their planned end date.

In line with the funding methodology a student can count as retained if they leave before their planned end date but have completed the learning activities leading to the learning aim. This would be flagged on the ILR or school census.

Core Aim	Point Of Leaving & Whether Student Counts As Retained				Notes
	Year 12		Year 13		
	Mid-year	End Of Year	Mid-year	End Of Year	
International Baccalaureate (IB)	→ X				Student enrolled on 2 year course. To count as retained they must make it to the end of the 2 years.
		→ X			
			→ X		
				→ ✓	
AS Levels	→ X				Student enrolled on 1 year course. To count as retained they must make it to the end of the year.
		→ ✓			
A Levels	→ X				Student enrolled on 2 year course. To count as retained they must make it to the end of the 2 years.
		→ X			
			→ X		
				→ ✓	
BTEC Subsidiary Diploma (6 units)	→ X				Student enrolled on 1 year course. To count as retained they must make it to the end of the year.
		→ ✓			
BTEC Extended Diploma (18 units)	→ X				Student enrolled on 2 year course. To count as retained they must make it to the end of the 2 years.
		→ X			
			→ X		
				→ ✓	
BTEC Subsidiary Diploma followed by BTEC Extended Diploma	→ X				A student takes a Sub. Diploma in Y12 and then decides to expand this to a Ext. Diploma in Y13. If they drop out during Y13 they count as not retained for their entire programme.
		→ ✓			
			→ X		
				→ ✓	

There are a number of cases where a qualification can be broken up into component parts, such as the BTEC Subsidiary & Extended Diploma example shown above. Where a student takes both, these will be treated as a single programme of study with the expectation that the student must complete the learning activities for all of this to be retained.

Guidance on how the new linear A levels should be recorded on the ILR and School Census in the 2015/16 academic year will be released at a later date.

C3: Level 2 English and maths example

Individual student progress

The following table shows possible levels of progression for level 2 English and maths qualifications from key stage 4 to 16-18. For example a student coming with a GCSE E grade makes 1 grade progress if they get a GCSE D grade and 2 grades progress if they get a GCSE C grade.

	Highest Grade Achieved Whilst At Institution								
	GCSE			Functional skills		Free Standing Maths		English for speakers of other languages (ESOL)	
Prior Attainment	grade E (3 points)	grade D (4 points)	grade C (5 points)	Level 1 (2.5 points)	Level 2 (4 points)	Level 1 (A-C) (2.5 points)	Level 2 (4 points)	Level 1 (Dis/M) (2.5 points)	Level 2 (4 points)
Student A GCSE grade D (4 points)	-1	0	1						
Student B GCSE grade E (3 points)	0	1	2	-0.5	1	-0.5	1	-0.5	1
Student C GCSE grade F (2 points)	1	2	3	0.5	2	0.5	2	0.5	2

As outlined in the conditions of funding those students who have attained a grade D GCSE in English and/or maths should retake the GCSE rather than a stepping stone qualification. This is why the stepping stone qualifications are blacked out in the table above.

Progress against national averages

Each student's individual progress will be compared against the national average progress made by students who have the same prior attainment in English or maths. This will set realistic benchmarks for students and aid providers in selecting the most appropriate pathway for students.

For the purpose of the example, national average progress for an F grade student (student C) is assumed to be 1.25 grades. Therefore making 2 grades progress from an F grade to a D grade gives a value added score of +0.75 (three-quarters of a grade more progress than the national average).

Highest Grade Achieved Whilst At Institution									
	GCSE			Functional skills		Free Standing Maths		ESOL	
Prior Attainment	grade E	grade D	grade C	Level 1	Level 2	Level 1 (A-C)	Level 2	Level 1 (Dis/M)	Level 2
GCSE grade F	1	2	3	0.5	2	0.5	2	0.5	2
Student C Value added	-0.25	+0.75	+1.75	-0.75	+0.75	-0.75	+0.75	-0.75	+0.75

This table illustrates that to match or exceed the national average, student C would need to be re-entered for GCSE and achieve a D or C grade, or to enter a level 2 qualification such as Functional Skills.

As progress is calculated over the course of the 16-18 study programme phase, student C could take a level 1 qualification as a stepping stone to the qualifications listed above

For example, if student C was to take Functional Skills level 1 in year 12 and then Functional Skills level 2 in year 13, their progress for the 16-18 study programme phase would be 2 points, giving a value added score of +0.75, as the lower qualification (Level 1 Functional Skills) would be discounted once the higher qualification had been achieved.

For the purpose of this example, national average progress has been set as follows:

- KS4 GCSE grade D - **0.75**
- KS4 GCSE grade E - **1**
- KS4 GCSE grade F - **1.25**

Highest Grade Achieved Whilst At Institution									
	GCSE			Functional skills		Free Standing Maths		ESOL	
Prior GCSE Attainment	grade E	grade D	grade C	Level 1	Level 2	Level 1 (A-C)	Level 2	Level 1 (Dis/M)	Level 2
GCSE grade D	-1	0	1						
Student A Value added	-1.75	-0.75	+0.25						
GCSE grade E	0	1	2	-0.5	1	-0.5	1	-0.5	1
Student B Value added	-1	0	+1	-1.5	0	-1.5	0	-1.5	0
GCSE grade F	1	2	3	0.5	2	0.5	2	0.5	2
Student C Value added	-0.25	+0.75	+1.75	-0.75	+0.75	-0.75	+0.75	-0.75	+0.75

As the table above illustrates, for students who already have a D grade (student A), retaking GCSE and improving their GCSE grade will be the only way to gain a positive value added score. See Annex B for further explanation on the points awarded for stepping stone qualifications.

For student B, achieving a grade D at GCSE or an alternative level 2 qualification would give a value added score of 0 (matching the national average); to exceed the national average student B would need to achieve a C at GCSE.

Annex D: Performance point scores

The following tables show the point scores that are assigned to grades for the main level 3 qualifications. It also shows how these map to the fine grades that will be shown in the attainment measure.

A level		Point Score Band		
Grade	Point Score	Min	Max	Fine Grade
A*	60	58.34	60.00	A*
		55.00	58.33	A*-
A	50	51.67	54.99	A+
		48.34	51.66	A
		45.00	48.33	A-
B	40	41.67	44.99	B+
		38.34	41.66	B
		35.00	38.33	B-
C	30	31.67	34.99	C+
		28.34	31.66	C
		25.00	28.33	C-
D	20	21.67	24.99	D+
		18.34	21.66	D
		15.00	18.33	D-
E	10	11.67	14.99	E+
		8.34	11.66	E
		5.00	8.33	E-
U	0	0.00	4.99	U

<ul style="list-style-type: none"> Level 3 Vocational (Size of 1 A level) 		Point Score Band		
Grade	Point Score	Min	Max	Fine Grade
Distinction*	50	46.67	50.00	Dis*
		41.67	46.66	Dis*-
Distinction	35	36.67	41.66	Dis+
		33.34	36.66	Dis
		30.00	33.33	Dis-
Merit	25	26.67	29.99	M+
		23.34	26.66	M+
		20.00	23.33	M-
Pass	15	16.67	19.99	P+
		13.34	16.66	P
		10.00	13.33	P-
Fail	0	0	9.99	U



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