

Methodology - Level 1 and 2 attainment in English and mathematics by 16-18 students

INTRODUCTION

This Statistical Release shows level 1 and 2 English and mathematics attainment by the 16-18 cohort who failed to achieve A*-C GCSEs in these subjects at academic age 15 in 2009/10.

Achievements in all level 1 and 2 English and mathematics qualifications are included within this release¹. Data are reported for individual schools and colleges along with transition matrices showing national progress according to different prior achievement.

For the purpose of this release, national figures report on 16-18 year olds who had not achieved A*-C in English or mathematics by age 15 in 2009/10. For institution level figures, only full-time students in schools and colleges are included. Outcomes are reported for pupils at academic age 17 based on attainment from 2010/11 to 2011/12.

These statistics are published as "Experimental Statistics" and do not display the National Statistics Logo. They are still being evaluated and remain subject to further testing to determine their reliability and ability to meet customer needs. The figures should be treated with caution as this is the first year for which such data have been produced. As improvements are made to the methodology, data quality will be assessed to establish whether the statistics meet the quality standards for National Statistics.

TECHNICAL NOTE

Estimates reported in this release are derived from the matched administrative data (MAD) used to produce SFR13/2013: 'Level 2 And 3 Attainment By Young People In England Measured Using Matched Administrative Data: Attainment By Age 19 In 2012'. Link: <https://www.gov.uk/government/publications/attainment-by-young-people-in-england-measured-using-matched-administrative-data-by-age-19-in-2012>

Several data sources are matched together at an individual level, using personal identifiers such as name, date of birth, gender and home postcode where available:

¹ The new measures recognise attainment in all level 1 (the equivalent of grades D to G at GCSE) and 2 (the equivalent of grades A* to C at GCSE) English and mathematic qualifications which are currently reported in the performance tables.

- Pupil Level Schools Census (PLASC) database containing information on the participation and personal characteristics of pupils in state schools, collected by DfE.
- Awarding Organisation data including that collected as part of the School and Colleges Performance Tables exercise.
- National Information System for Vocational Qualifications (NISVQ) database containing information on people's vocational achievements at all institutions, collected from awarding organisations.
- Individualised Learner Record (ILR) database covering participation and qualifications obtained in Further Education (FE) and Work-based Learning (WBL), collected by the Further Education Data Service from learning providers.

Further information on these datasets is available in DfE's Statement of Administrative Sources which can be reached via the link below:

<http://www.education.gov.uk/researchandstatistics/statistics/datasources/a00196932>

The number of eligible qualifications not recorded in the datasets is considered to be minimal. The level of matching between data sources is very high.

THE MEASURES

There are a number of measures presented in this release (Annex A) split into two types: threshold and progress measures. All the measures show level 1 and 2 English and mathematics attainment over 2010/11 and 2011/12 by the 16-18 cohort who failed to achieve A*-C GCSEs in these subjects by academic age 15 in 2009/10.

Threshold measures

Threshold measures are presented at institution and national level. Individual institution achievements are aggregated to produce national figures broken down by institution type. English and mathematics are shown separately so students can be reported in one or more of the threshold measures depending on their achievements.

The data are presented in tables covering the following:

Level 2 measures:

- Percentage of students achieving A*-C in GCSE English/mathematics by 2011/12;
- Percentage of students achieving level 2 functional, key or basic skills in English/mathematics or Free Standing Mathematics Qualifications (FSMQs) by 2011/12.

Level 1 measures:

- Percentage of students achieving at least D-G in GCSE English/mathematics by 2011/12;
- Percentage of students achieving at least level 1 functional, key or basic skills in English/maths or Free Standing Mathematics Qualifications (FSMQs) by 2011/12.

Progress measures

Transition matrices present the national progress made in English and mathematics from different starting points. These measures include the percentage of 17 year old students achieving a given grade in GCSE English/mathematics broken down by their prior achievement at age 15. They also cover other level 1 and 2 achievement.

Specifically, two transition matrices tables are included in the release covering the following:

- English and mathematics GCSE achievement at age 17 by prior achievement at age 15 (national-level only);
- All levels of English and mathematics achievement at age 17 by prior attainment at age 15 (national-level only).

The transition matrices assume that a GCSE A*-C is a higher achievement than a level 2 skills which in turn is a higher achievement than a grade D-G at GCSE. Level 1 skills is next in the hierarchy followed by entry level achievement.

QUALIFICATIONS INCLUDED

English and mathematics qualifications recognised in the experimental data are consistent with those reported in the key stage 4 performance tables. They include the following:

- GCSEs (full-courses);
- Established iGCSEs;
- AS levels;

In addition, the following are recognised:

- Level 1 and 2 functional skills;
- Level 1, 2 and 3 Free Standing Mathematics Qualifications (FSMQs);
- Level 1 and 2 key skills and basic skills;
- Entry level qualifications (transition matrices only)

To note, however, the key stage 4 National Curriculum requirement to take GCSEs in both English Literature and English Language does not apply. Therefore, results in English Language GCSE will count as an English achievement if taken on its own.

STUDENTS INCLUDED

These experimental statistics are designed to show outcomes in English and mathematics qualifications of students in 16-18 education who did not achieve a C grade or better in these subjects at age 15. Students are included if they are identified as being in education in a school or college in year 12 in 2010/11 with outcomes by subject reported for year 13 students at the end of the 2011/12 academic year. Students must have been studying full-time at some point during the two year reporting period to be included in the institution level statistics.

The MAD is designed to measure achievement of level 2 and 3 by the age of 19. However, for those that have different rates of learning, it does not include the actual year group that the student is participating in. As a result, these statistics use academic age as a proxy for year group. Students included are therefore those identified in schools and colleges aged 16 in 2010/11 who did not achieve C grades in English or mathematics by age 15 in 2009/10. Outcomes are reported for 17 year olds in 2011/12.

ALLOCATION TO SCHOOLS AND COLLEGES

The MAD enables the identification of each institution being attended by a student from each of the individual participation sources (census, FE, WBL and ILRs) and where qualifications have been sat (awarding organisation data) in a given year.

Each institution attended by the student, providing it is one that is reported in KS5 Performance Tables (state-funded schools, special schools and FE sector colleges), has been considered against other qualifying institutions to determine which should be allocated to the student for reporting purposes. Independent schools are not included in these statistics as they do not complete PLASC and therefore there is no mechanism to accurately determine who is on roll at these institutions.

All students who attended an institution over the reporting period (2010/11 and 2011/12 academic years) are considered and where there is more than one possible choice of institution, the student is allocated following the allocation rules listed below:

Where institutions can be separated by volume of study:

- 1) Allocate to the institution with the highest volume of entries:
The awarding organisation data has been used here to determine the volume of entries sat in each institution. Volume is defined as the total size of all

qualifications entered for, up to and including level 3. The size of a qualification is defined in terms of the guided learning hours attached to it which is then translated into the relative size of a GCSE for example, a GCSE has a volume of 1, an AS has a volume of 2 and an A-level has a volume of 4. This approach is consistent with the methodology used in the performance tables.

Where institutions cannot be separated based on volume of study:

- 2) Allocate based on where English or mathematics GCSE has been sat. Where competing institutions both have English or mathematics GCSE entries, then allocate to where the best/most recent result was achieved.

Where volume of study cannot separate institutions and there are no GCSE English or mathematics entries, students have been allocated in the following order of priority, based on the first condition that is true:

- 3) If the student has been recorded against the same institution in both years of the reporting period then allocate to this school or college.
- 4) If the student is identified as full-time in a college, then allocate to that college. If part-time in a college but full time in a school, then allocate to the school.
- 5) Where there is a choice between an institution in the first year of the reporting period and a different institution in the second, allocate to the most recent school or college.

Outcomes are not reported if students are recorded against an institution in the second year of the reporting period only (i.e. they are not recorded in a school or college in year 12 at age 16 in 2010/11). Instead, outcomes for these students are deferred for reporting in 2013 measures as they are deemed not to be at the end of their 16-18 study. This is in line with KS5 performance tables practice.

Students that cannot be allocated to a school or college that is reported in the Tables are included under 'other' institutions, for example, these institutions could include hospital schools.