The Great Stagnation of Upper Secondary Education in England: A historical and system perspective

Lynne Rogers and Ken Spours
Institute of Education, University College London, London, UK

Abstract

This historical and contemporary assessment of 14–19 attainment and post-16 participation suggests that for the first time in a generation, overall levels of attainment in the English upper secondary (14–19) phase are plateauing. Time-series data has been compiled to present four phases of attainment and participation development since the late-1980s when the education and training system in England transitioned into a full-time post-16 participation model. Closer analysis of the Fourth Phase (2012/13-present) shows several plateauing trends of learner attainment and participation that originate in Key Stage 4, but which are now spreading throughout the upper secondary phase. The analysis proceeds to explore the main dynamics of the plateauing phase – qualifications reform; accountability measures and institutional behaviours - that form a new ‘attainment and participation equilibrium’. The article concludes by suggesting that the new trend poses particular threats to middle and lower attainers who could be disproportionately affected by Conservative-led reform and to the performance of the English upper secondary system when compared internationally.

Introduction

14–19 learners in England face an unprecedented situation. A historical view of a learner qualifications performance over the last 30 years suggests that for the first time in a generation, overall levels of attainment in the English upper secondary phase are plateauing and are even in decline in key areas such as GCSE.

Reflecting on historical data we suggest that there have been four periods of attainment and participation development in recent decades – a growth phase in late 1980s around the introduction of GCSE; a slow-down phase in the 1990s resulting from changes to qualifications and developments in the youth labour market; an expansion phase in the 2000s as New Labour 14–19 and ‘parity of esteem’ reforms were implemented and the latest (Fourth Phase) of plateauing and retrenchment.

Initial analysis suggests that this new stagnating trend is the result of the combined effects of the reform of qualifications and assessment (e.g. linearity; more external assessment and new grading systems); changes to accountability measures (e.g. EBacc and Progress 8); key policy levers, notably inspection and funding, and the ways in which these ‘national instruments’ are interpreted by schools and colleges; giving rise to more selective and exclusionary institutional behaviours.

The latest period is not just an issue for the performance of the English upper secondary system when compared internationally - we could stand still while others advance - but also crucially for middle and lower attainers who could be disproportionately affected by the
Conservative-led reforms. A focus on the ‘overlooked middle attainer’ featured in a previous issue of this journal (Hodgson & Spours, 2013) when it was speculated that upcoming government reforms could endanger the progress of those outside of the academic elite. Six years later we have returned to this theme following the implementation of the ‘Gove Agenda’ since 2010 reflecting Coalition and Conservative Government anxieties concerning grade inflation in GCSE and A Levels (Bald, 2015) and tackling the low status of vocational education (Richmond, 2018). Subsequent articles will examine the new system effects on middle and lower attainers and their progression prospects.

This form of historical system analysis, however, is not without its methodological challenges. The most obvious has been the difficulties of joining up national participation and attainment data collected in different periods; using different metrics and guided by differing policy objectives. The article thus attempts to weave together these data into what we think is a plausible picture and their ‘joins’ and the caveats are explained in the methodological annex.

Reforms in the 14–19 phase in England since 2010

Raising of the Participation Age and versions of a universal upper secondary phase

The Raising of the Participation Age (RPA), initiated by New Labour (Education and Skills Act, 2008) and supported by the subsequent Coalition and Conservative governments, signaled universal participation in education and training to age 18 in England. In its implementation RPA marked a commitment from government to ensuring that all young people are able to make an extended and smooth transition from education to work.

While RPA could be interpreted as the beginning of a universal upper secondary education in England, it has proved thus far to be a relatively weak influence regarding the character of this phase. From 2004 the previous Labour Government created a formal 14–19 phase onwards and offered a vague commitment to turn 16+ from a selection point into a progress check (DFES, 2005a). The Coalition and Conservative Governments, however, have sought since to reinforce the 16+ divide by insisting that the dominant route (GCSEs and A Levels) remain as two separate stages, 14–16 and 16–18, thus suggesting a more selective approach to upper secondary education in England (Rogers et al., 2017).

Pre-16 performance measures: the EBacc and Progress 8

The English Baccalaureate (EBacc), introduced in 2011 although applied retrospectively to the 2010 performance tables, was designed to increase the uptake of the core ‘academic’ curriculum – English, mathematics, science, history or geography and a language. The underlying policy assumption was that these ‘facilitating subjects’ were required by Russell Group universities (DfE, 2010).

By way of contrast, there were concerns that the emphasis on the EBacc might lead schools to focus on more able students who were more likely to attain the EBacc (Hodgson & Spours, 2011) and that the focus of the EBacc curriculum would restrict access to non-EBacc

---

1 The Russell Group withdrew the list of facilitating subjects in May 2019, but the DfE retained the AAB including two facilitating subjects measure for Summer 2019.
subjects such as creative subjects, and design technology (RSA Academies, 2016). The importance of school performance tables meant there was a strong incentive for schools to encourage pupils to take the EBacc subjects (Long & Bolton, 2017).

The privileged status of the EBacc subjects was further enhanced by the introduction of Attainment and Progress 8 in 2016, as the new headline performance measures (DfE, 2016). This centred on student performances in qualifications in eight key subject slots: English; mathematics; three other qualifications in the EBacc subjects; and three further qualifications - other GCSE qualifications in subjects not already counted, or any other ‘high value’ vocational qualifications. Progress 8 is norm-referenced which puts schools in competition with one another. Schools falling below the floor standard, or deemed to be coasting, are subject to Ofsted inspections. Ofsted are reported to have pressurized schools to conform with EBacc requirements in the name of a ‘broad curriculum for all’ (Allen-Kinross, 2019).

16–19 phase: A Levels, vocational qualifications, apprenticeships

In England the post-16 phase of education suffers from a long-standing academic-vocational divide characterized by A Levels as the traditional pathway to university versus vocational education that is often regarded as second best. Under New Labour and ‘Curriculum 2000’, the A Level route was ‘expanded’ through a more accessible AS/A2 structure, modularization and the development of applied variants in an attempt to produce a more ‘linked’ relationship between the qualifications tracks (Hodgson & Spours, 2008).

Following the 2010 White Paper, however, a series of qualifications reforms have been implemented that suggest a clearer academic/vocational distinction. The two-stage A Levels have been reformed into a single linear model intended to be more ‘rigorous’ and to provide students with the skills and knowledge needed for progression to undergraduate study (Long, 2017). Vocational qualifications have also been reformed and are divided into Applied General and Technical following the Sainsbury Review and the Post-16 Skills Plan (DBIS/DfE, 2016). This particular distinction is the latest attempt to raise the prestige of vocational education in England (Wilshaw, 2016). The Conservative Government sees the college/provider-based Technical Levels (T-Levels) (i.e. not the apprenticeship T-Levels) as the vocational equivalent of A Levels and has thrown into doubt the future of Applied General qualifications, such as BTECs, that have made a significant contribution to the proportion of 19-year-olds qualified to Level 3.

The apprenticeships system in England is characterized by its diversity in comparison to other countries. Apprenticeships vary in length, the level of qualifications offered and serve both young people and adults. An Apprenticeships ‘framework approach’ based on continuous assessment with competency-based qualifications has been replaced by ‘standards’ and the apprenticeship Levy launched in April 2017. The Conservative Government has set a target of three million apprenticeship starts by 2020 (HMG, 2015). However, for young people aged 16–18, apprenticeships remain a marginal pathway with low levels of participation of young people (Powell, 2019). Most 16–18-year-olds take intermediate Level 2 apprenticeships – the equivalent to 5 A*-C GCSEs which can be problematic in terms of their progression to work or further study (CIPD, 2018). Thus far government reforms to apprenticeships do not suggest a significant expansion of this route for young people.
Assessment
The reforms to all qualifications – GCSEs, A Levels, vocational qualifications and apprenticeships – have heralded a move to linearity and final examinations (or end-point assessment [EPA] for apprenticeships). The grading of GCSEs has also changed. Reformed GCSEs use a numbered scale from 1 (lowest) to 9 (highest) rather than the previous system of A*-G hence performance tables for 2017 and 2018 are based on a ‘mixed economy’ of grades.

Summary
The reforms instigated since 2010 need to be seen as a whole package that were, in policy terms, intended to refocus attention on the academic curriculum; to create more rigorous and in-depth learning and to strengthen the technical education tradition. In doing so they also aimed to reverse the New Labour emphasis on a more diverse general education route and ‘applied education’. As we will see, these reforms have come at a cost both to system performance and in terms of ‘access to success’ for some learners, the consequences of which are not yet fully revealed nor understood.

A historical and system framework
We think it is important to exercise ‘policy memory’ in 14–19 education (Higham & Yeomans, 2007) in order to understand the significance of the ‘stagnation phase’. Time-series data in Figures 1 and 2 suggest that there have been four distinct participation and attainment phases in 14–19 education since the mid-1980s.

Phase 1. Initial expansion (1987/8–1993/4) – the sudden growth of full-time participation and lower secondary attainment aided by the role of the newly introduced GCSE with positive knock-on effects in A Level attainment and subsequently in higher education participation.

Phase 2. System slowdown (1994–2004) – 16+ full-time participation reaches a plateau (including work-based learning it actually declines) while GCSE and A Level attainment continue to grow, but at a slower pace than in Phase 1.


Each of these phases are explored in terms of the balance and relationship between ‘push’ and ‘pull’ factors (Raffe, 1992) affecting participation, attainment and progression of learners in the 14–19 phase.
Participation and attainment trends – 1987–2012

Phase 1. Initial expansion (1987/8–1993/4)

16+ participation

Wider social trends at the end of the 1980s (e.g. immigration and the emergence of aspiring BAME groups; changes to the white working class and growth of the property-owning middle classes) provided the backdrop for increases in post-16 full-time participation. The introduction of GCSE from 1988 articulated increased aspirations to stay on in education by providing a greater number of young people with the grades to access post-16 study (Spours, 1995). Accordingly, during the period 1987/8 to 1993/4, full-time 16+ participation increased from 49 to 73 per cent, rising nearly 3.5 per cent annually. Over the same period full-time 17+ participation rose from 34 per cent to 60 per cent (an average of 3.7 per cent annually) and full-time 18+ participation from 18 per cent to nearly 40 per cent (an average of 3.1 per cent annually) (DfES, 2005b). As Figure 2 shows, however, the lag between 17 and 18+ participation compared with initial participation at 16 remained a historical feature of the English and UK education and training system (Pring et al., 2009).

The effects of GCSE reform on 16+ attainment rates

Following years of stagnation of attainment in the mid-1980s, the years 1988–1994 saw the attainment of 5 GCSE A-C grades move from 30 per cent to 43 per cent - an average annual increase of nearly two per cent (see Table 1). In its initial phase GCSE had 100 per cent coursework that allowed some students to ‘work hard’ for their grades, particularly females (e.g. Harris et al., 1993).

Table 1

This change brought knock-on effects on A Level performance. More young people were able to access A Level study and the attainment of the new participants was helped by modularization and syllabus modernization of the post-16 qualifications (Young, 1999). Accordingly, attainment of two or more A Levels rose from 14 per cent in 1989 to nearly 21 per cent by 1992 – an increase of about two percentage points annually (SCAA, 1996, cited in Coe, 1999).

Education and training system change

While the early 1980s saw the massification of training of young people under YTS, the period 1987–1994 saw the first serious expansion of full-time participation and qualification at 16. In the space of 10 years, the under-performing education and training system criticised by Finegold and Soskice (1988) changed dramatically as it moved from being a ‘mixed system’ with no dominant route to becoming a ‘full-time model’, with the majority of 16 and 17-year-olds staying on in schools and colleges. This was the result of the changing balance between participation ‘push’ and ‘pull’ factors (Raffe, 1992). Factors, such as examination success, that ‘pushed’ learners through the system grew stronger; whereas factors that ‘pulled’ learners out of the education system, such as the youth labour market, weakened due to economic recession in the early 1990s.

Two phases of system slowdown

The sharp growth of participation and attainment was curtailed by a confluence of factors that appeared in two sub-phases, linked to government policy and a changing youth labour market. The first sub-phase in the early 1990s revolved around shifts in the ‘push/pull’ factors; including the possible exhaustion of the initial waves of willing post-16 participants, together with a resurgent but casualised youth labour market (Hodgson & Spours, 2000a). Another factor was the effect of Conservative qualifications reform that introduced more external assessment in GCSE; reversed A Level modularization and introduced new vocational qualifications, notably, General National Vocational Qualifications (GNVQs) that suffered from issues of student retention and failure (Hodgson & Spours, 1999). The second sub-phase, in the late 1990s, resulted from the delayed rate of reform by the New Labour Government as it debated its approach to 14–19 education. Building on the Dearing Review (1996) New Labour eventually rejected the more radical unificatory approach advocated by the Labour Party in the 1990s that became represented by the Tomlinson Commission on 14–19 reform. Instead, it opted for more incremental reform represented by Curriculum 2000 and its parity of esteem measures of the early 2000s (Hodgson & Spours, 2008).

Post-16 participation and GCSE/A Level attainment

The main feature of the Slowdown Phase was the plateauing of 16–18 participation 1994–2004, which dipped at one point during this ‘lost decade’ (see Figure 3).

Figure 3

On the other hand, during the whole of this period GCSE and A Level attainment continued to grow, but at a slower pace than in Phase 1. There was a marked slow-down in GCSE growth rate (6.5 points in 10 years), half the rate of the initial expansion years linked to A-C boundary, grading and assessment changes and the introduction of A* (see Table 2). The attainment of two or more A Levels crept up from 28 per cent to 31 per cent by 2002, the point at which Curriculum 2000 results came through.

Table 2

Looking back over the mid-late 1990s and early 2000s, the combined effects of a more track-based qualifications system in England and a more active youth labour market, much of it part-time and casualised together with New Labour’s delayed reforms, help solidify English USE into a relatively middle performing model when compared internationally (Hodgson & Spours, 2000b).


Policy background

In 2002 the New Labour Government published its 14–19 Green Paper (DfES, 2002) and set about reforming the English upper secondary phase with a series of measures including equivalences in Key Stage 4 and the growth of the use of broad vocational qualifications;
modularization of GCSEs and Curriculum 2000 reforms to A Levels; Education Maintenance Allowances for 16–19-year olds, together with considerable investment in FE colleges. This benefitted all students, but particularly what we have termed the ‘middle attainer’ (Spours, et al., 2012). The expansion period is defined as 2004–12 since the Conservative-led qualifications, assessment and accountability reforms proposed in 2010 were implemented from 2012/13 onwards.

Large annual rises in GCSE/A Level attainment and post-16 participation
In terms of examination performance there were rapid rises in attainment of 5 GCSEs A*-C or equivalent from 54 to 82 per cent (2004–2012) – an average of three per cent per annum, double that of the First Expansion Phase and six times greater that of the Slow Down phase. However, measured in terms of 5 GCSE A*-C grades including maths and English, there was a slower growth rate of 42.6 to 59.4 per cent (about 1.5 per cent growth annually) (see Table 3).

Table 3

A Level attainment also rose as a result of Curriculum 2000 - the main trend being the increased access to the higher grades as a result of the availability of modular resits – those attaining higher grades AA*/B went from 38 per cent in 2002 to 53 per cent in 2012 (DfE, 2017). Curriculum 2000 also increased the volume of A Level study with a marked decline in the proportion of learners taking just two A Levels. The proportion of 19-year-olds qualified to Level 3 including equivalents increased from 42.1 per cent to 58 per cent (DfE, 2019b), reflecting growth in the attainment of both general and vocational qualifications post-16.

System growth also spread to 16+ participation after 10 years of stagnation – averaging upward of two percentage points annually. Between 2004 and 2012, 16+ full-time participation grew from 75 to 84 per cent; 17+ participation from 62 to 74 per cent and 18+ participation from 40 to 49 per cent (DfE, 2018a). However, apprenticeship participation continued to stagnate with the policy emphasis moving to improving completion rates rather than trying to grow the work-based learning system for young people (Pring et al., 2009).

Contradictions of the growth phase
This second growth phase is significant because it opened up the possibility of much greater Level 3 participation post-16 for middle attainers particularly. However, the phase also carried contradictions with problems of 17+ retention and learner progression looming large. Towards the end of the growth phase there was a policy of mild retrenchment by New Labour (known colloquially as ‘Curriculum 2008’) to reign back on modular resits and the effects this was having on the higher grades at A Level (Hodgson & Spours, 2013). This move confirmed the disparity between attainment conditions pre- and post-16 and even suggests that the stagnation phase that was to become evident from 2012 under the Coalition and Conservative Governments had some of its roots under New Labour.

Phase 4: Data behind the stagnating trend (2012 - present)
In policy terms Phase 4 started with the White Paper published in November 2010. However, in relation to the dynamics of the phase we take 2012/13 as the starting point because this is when the reforms began to be implemented. The dynamics of the stagnation phase do not suggest that all growth trends in attainment and participation have simply ground to a halt. Rather, variable trends have been observed - many plateauing, some declining and a small number increasing - but with the overall effect of producing a situation of system stasis. By 2018 the stagnation trend appears to have spread across the whole of the 14 to 19 phase. Here we report first on the factors behind participation and attainment pre-16 in the 14 to 16 phase, the EBacc and GCSEs and subsequently the post-16 phase including participation and attainment trends in A Levels, vocational qualifications at Levels 3 and below and Apprenticeships.

14–16 phase
The EBacc
As stated earlier, the policy aim of the EBacc performance measure was to increase participation and attainment in ‘facilitating subjects’ recognized by research intensive universities. The EBacc was not a baccalaureate curriculum in the proper sense, but an accountability measure intended to pressurize schools into increasing participation in these particular subjects at the expense of applied and vocational subjects pre-16.

Table 4
As Table 4 shows, the introduction of the EBacc performance measure had an early impact on participation and attainment of these subjects, although this appears to have levelled off. EBacc participation (all five subjects) dropped to 38 per cent in 2018 from a high point of nearly 40 per cent in 2016. There has been an even steeper decline in those achieving the EBacc from nearly 25 per cent in 2016 to 21 per cent in 2017.

At the same time, however, there has been an increase in young people taking more components of the EBacc. The uptake of all five components rose from 23 per cent in 2012 to 38 per cent in 2017. Similarly, as Figure 4 illustrates, there has also been an increase in young people taking four, rather than three EBacc components: up from 24 per cent in 2013 to 47 per cent in 2018, due mainly to the uptake of History or Geography. Parallel to this has been the reduction in young people taking non-EBacc subjects and vocational qualifications.

Figure 4
The effects on subject participation and attainment is not just the result of one measure, but the interaction between a range of reforms and accountability measures – the EBacc; Progress 8; reformed GCSEs and Ofsted inspections. What has become evident is the power of Progress 8 and the wider implications of falling below the floor standard linked to the Ofsted inspection regime. It appears that young people’s interest in other subjects or vocational areas is being ignored so that schools can maximize their Attainment 8 and Progress 8 scores. Until 2017 the introduction of Progress 8 had led to lower attaining students being entered for more qualifications, without significantly higher levels of attainment among this group (see Figure 5). Provisional data for 2018 shows a drop in the
number of entries – this is largely explained by the changes to science qualifications whereby the combined (double award) now counts as one entry (2018c).

**Figure 5**

The government reform of GCSE has had several dimensions. First were methodological changes in 2013–14 to how GCSE grades are countered, resulting in a sharp decline in the proportion of the 16-year old cohort recognized as achieving five A*-C GCSEs (see Figure 6).

**Figure 6**

On top of this came the imposition of a greater proportion of final examination assessment that has resulted in a decline of the proportion of students attaining GCSE grades across the anchor measures since 2013 (see Table 5). This ‘anchor measure’ ignores the changes to grading to show comparisons year-on-year. Measured in terms of Attainment 8 scores, performance declined from 49.9 in 2016 to 46.3 in 2017 but rose in 2018 to 46.5 (DfE, 2019a).

**Table 5**

At the same time, there have been changes to GCSE grading, moving to a number scale (1–9). The headline measure is now Grade 5, which is broadly seen as higher than the GCSE C grade that might have been broadly equated with Grade 4. The potential consequences of this can be found in the fact that in 2017 English and maths 42.2 per cent achieving Grade 5–9, whereas in the same year 63.3 per cent achieving Grade 4–9 English and maths. Thus the shifting of the emphasis to Grade 5 potentially affects the threshold through which learners can access Level 3 study post-16. The question remains as to how learners, their parents and institutions will view the status of Grades 4 and 5. Might it be the case that Grade 4 will now be viewed as the new failure?

**16–18/19 phase**

**A Level and Level 3 attainment and participation**

After years in the steady growth of A-level grade attainment it seems that examination and assessment performance in post-16 study has also started to plateau when different trends are taken into consideration. Participation in A Levels has fallen for the last three years (3 per cent between 2015/16 and 2 per cent between 2016/17), the largest drop being seen for 2017/18 at over five per cent, while the size of the cohort declined by 1.7 per cent (DfE, 2019c). Overall participation in post-16 Level 3 study was down by 2.5 per cent between 2016 and 2017 (DfE, 2018d) and by 23.9 per cent between 2017 and 2018 (DfE, 2019c). There were particularly steep drops in the proportion studying tech level and applied general: 80.1 per cent and 63 per cent respectively compared to 2017 (DfE, 2019c). A Level attainment on the other hand has broadly levelled out at grade C+ – APS per entry is slightly up from 32.4 to 33.3 per cent, but those attaining three AAB was slightly down from 17 to 16.2 per cent in 2018. There has also been a small increase in A Level STEM subject entries. Provisional UK results from 2018 show that 36.2 per cent of all entries were in one of these subjects, an increase from 33.4 per cent in 2014, and 34.5 per cent in 2017 (JCQ, 2018).
Three related factors can be identified to explain the decline in post-16 Level 3 participation. First, is the sharp reduction in the proportion of the Year 11 cohort obtaining the necessary grades for access to the next level of study. Allied to this have been assessment and structural changes to A Levels (abolition of the AS/A2 and the return to a linear final examination approach) that arguably have made the ‘royal route’ more difficult to both access and to navigate. Finally, are changes made to eligibility of technical and applied general qualifications in performance tables.

Post-16 vocational qualifications and the work-based route
It is interesting to note that throughout the growth period of attainment, the role of A Levels on the cohort remained relatively static (see Figure 7). The proportion of the cohort attaining A Levels barely rose throughout the previous decade and has remained at about 38 per cent since 2014. What did increase was the number of subjects being studied and increased access to higher grades as a result of Curriculum 2000.

Figure 7

What Figure 7 dramatically shows, on the other hand, has been the role of vocational attainment in boosting overall rates of Level 3 performance by age 19 during Phases 3 and 4. Between 2004 and 2015, the contribution of broad vocational qualifications outside of apprenticeship (e.g. BTEC) had grown from three per cent to over 18 per cent. This contribution has now plateaued and since 2015 has been stuck at around 18 per cent. Overall, Level 3 attainment, including the IB, Advanced Apprenticeships and AS Levels by 19, has hovered at just over 60 per cent since 2015 (DfE, 2019b).

Level 2 attainment
Given the constraints now showing in Level 3 study, it would be expected that post-16 Level 2 study might be expanding. However, as Figure 8 shows, following several years of slow but steady growth in Level 2 attainment by the age of 19 (2010–2015), improvement has stalled with a decline of three points to 84 per cent since 2015 (DfE, 2019b).

Figure 8

There have, nevertheless, been some mildly positive developments within Level 2 attainment, notably the number of young people attaining Level 2 English and maths post-16. This trend has been growing steadily since 2005, something that has continued into the eras of the Coalition and Conservative Governments. Moreover, an acceleration of this trend might be anticipated given the policy emphasis on post-16 English and maths arising from the Wolf Report (Wolf, 2011). However, recent statistics suggests that even this growth trend is plateauing. Figures for Level 2 attainment were the same in 2017 as in 2016 at 71.4 per cent and fell slightly in 2018 to 70.7 per cent (DfE, 2019b).

Apprenticeships
The Government has assumed that a sharply tracked system based on a more academic rigorous and selective route and an expanded technical and apprenticeships route would be able to provide the basis for system growth. However, data would suggest that the work-
based route for young people will not compensate for contractions taking place elsewhere. The number of apprenticeship starts has declined since 2015/16: 18,100 fewer starts in 2016/17 than the previous year and 119,100 fewer starts in 2017/18 than in 2016/17 (Powell, 2019). Sixteen to 18-year-olds continue to form the smallest proportion of apprenticeship starters compared to 19 to 24-year-olds and those aged 25 and over (Powell, 2019).

**Regional differences**
The average national figures quoted in this paper thus far do not capture the wide variability in attainment at ages 14–19 at regional or sub-regional levels. Provisional data for the average Attainment 8 score per pupil shows that the highest performing local authorities in 2018 were concentrated in London and the South. Most of the lowest performing local authorities were in the Northern and Midland regions. The difference between the lowest and highest performing local authorities was considerable at 18.6 points (37.6 versus 56.2) (DfE, 2018c). The average across state-funded schools in England was 46.4. At A Level in 2017 and 2018 the highest performing region was the South East. The poorest performing local authorities over the same period were Knowsley, Islington and Salford (DfE, 2019c, 2018d). These geographical differences reflect social class factors with implications for middle and lower attaining learners who will be concentrated in lower social groups; an issue discussed in the final part of the article.

**Summary**
Pre-16 and post-16 headline data suggests that the plateauing or stalling attainment and participation trend is now firmly established across the 14–19 upper secondary phase in England. The combinational nature of the factors that impacted particularly pre-16, is now spreading to post-16 and includes the work-based route. Furthermore, there are implications of ongoing government policy – the spread of EPA to vocational qualifications which imitates the examination and linear approaches of the academic track; the policy focus on the new T-Levels, with their difficult implementation conditions (e.g. very demanding work placements) and the uncertain future for applied general qualifications. The combined effects of these upcoming measures point to a smaller vocational route at Level 3 at a time when the A Level route is also shrinking.

**A new attainment and progression equilibrium?**
The stasis features of Phase 4 can be understood as an ‘attainment and participation equilibrium’ comprising an interacting set of factors – system reforms of qualifications, accountability measures and key policy levers; responding institutional behaviours; learner attitudes and the complex interactions of post-16 and pre-16 provision – that serve to depress attainment across the cohort. This ‘equilibrium’ of factors but may impact particularly on lower and middle attainers. Allied to these are wider contextual pressures concerning reductions in funding and problems of teacher recruitment and retention that will impact disproportionately on certain institutions. Thus far we have focused on the effects of qualifications reform and accountability measures on attainment rates; here we explore how these measures have been interpreted by institutions.

**Accountability measures that steer institutional behaviours**
The EBacc brought a shift in GCSE entry policies in schools (Centre for Analysis of Youth Transitions, 2011) with students ‘encouraged’ to take EBacc subjects. Although entries for 2012 suggested that the EBacc effect had stabilised, in 2013 and 2014 EBacc entries spiked again. The introduction of Progress 8 marked another shift in the uptake and provision of qualifications and subjects. There were significant changes in the proportion of young people entered for the full Progress 8; the move to almost all students taking separate English language and literature GCSEs given the requirements of double weighting; and a jump in the proportion of young people taking at least four EBacc subjects. Among 1,800 secondary school teachers surveyed, 75 per cent felt that the EBacc had led to a narrowing of the curriculum offer. There were indications of a subject hierarchy being formed with the privileging of lesson time and resources for EBacc subjects (Neumann et al., 2016).

There is no firm evidence to indicate the benefits of studying the constellation of EBacc subjects for young people. Although Armitage & Lau (2018) found an EBacc effect on GCSE attainment whereby students studying the EBacc subjects gained, on average half a grade, the grade advantage was small and was unlikely to impact on students unless it lifted them over the grade C/4 threshold. It may be that this advantage has since been cancelled by other trends – a decline in the EBacc pass rate and the fact that more young people are taking more EBacc components. Neither is it clear whether gaining lower grades in EBacc subjects is more advantageous than gaining higher grades in other subject combinations (Armitage & Lau, 2018) and how this impacts on transition to future study and/or employment.

14–19 qualifications and assessment reform focused on the upper end of the learner cohort

The introduction of Progress 8 was meant to address concerns that previous measures had penalized schools with low-attaining intakes. Contrary to this, Gill (2018) has shown that, although taking account of prior attainment at the student level, Progress 8 penalizes schools with a lower performing intake. It is also biased towards selective schools (Andrews, 2017). At the student level, some groups perform better than others including girls and those of Chinese ethnicity, non-free school meals students (Andrews, 2017), and non-Pupil Premium and EAL students (Thomson, 2017).

With the introduction of T-Levels in 2020, providers have indicated that entry requirements will be similar to A Levels with the consequence that they may end up focusing on the upper end of the learner cohort. This is because the new qualifications require all the components to be attained for the award to be made and there will be a shortage of employer placements (Straw et al., 2019). The T-Levels could thus be seen as a ‘high risk’ qualification into which institutions may well ‘ration’ uptakes. The recruitment of 16–19-year-old apprenticeships is in decline and with the potential withdrawal of applied general qualifications, there is every sense that low and middle attaining students will have reduced meaningful progression opportunities given that many will be unable to meet entry requirements. These learners seem to be missing from the reform agenda, a point highlighted by the Children’s Commissioner (2019).

There are issues, too, with changes to the assessment regime across the whole spectrum of qualifications. There is a substantive body of research about the backwash effect of
examinations on teaching and learning particularly in high stake situations: students learn what they think they will be tested upon (e.g. Biggs, 2011), and teachers tend towards teaching to the test by narrowing the curriculum and drilling students (Baird et al., 2013). For those on vocational or work-based programmes there are indications that some young people who are good at learning and applying skills in the workplace are less good in exams. It is likely that EPA will be even more anxiety-provoking for apprenticeships given the presence of independent assessors and employers (McCrone et al., 2016).

**Institutional exclusionary behaviours**
Permanent exclusions have risen in secondary state schools in all academic years since 2012/13, from 3,905 in 2013 to 6,385 in 2017 (DfE, 2018b). Prior to this, permanent exclusions in secondary schools had decreased by almost half between 2006/7 and 2012/13. This is not about changes to the size of the student population, since the rate of permanent exclusions also rose from 0.12 to 0.20 over the same period (DfE, 2018b).

The number of young people educated at home has also increased. A survey of 177 local authority areas in the UK (those authorities for which data was received) reported that numbers had risen from 34,000 in 2014/15 to 48,000 in 2016/17 – an increase of approximately 40 per cent (BBC, 2018). There are concerns, too, about the number of young people educated in alternative provision, who have in effect been ‘functionally excluded’ from school (Gill, 2017 p. 7). Gill (2017) estimated that 48,000 students in the country were educated outside of mainstream provision or in special schools during 2016/17.

Off-rolling, the term used when schools encourage students to move before the census date, is of increasing concern (Ofsted, 2018). Some schools appear to be ‘gaming’ the system and are off-rolling students who may perform poorly in their GCSEs and compromise the schools’ league table performance. Through analysis of pupil-level census data Ofsted (2018) tracked students in Year 10 in 2016 and who would be expected to be in Year 11 of the same school in 2017. Over 19,000 pupils from 2,900 schools did not progress from Year 10 to Year 11 in the same state-funded secondary school. Although many had moved to new schools, around half had disappeared.

The predominance of ability grouping/streaming/setting in English state secondary schools also deserves mention. Teachers of low-ability groups tend to adopt different pedagogical approaches compared to higher ability students (Mazenod et al., 2018) with negative consequences on educational attainment and self-confidence. Even though the evidence indicates that structured ability grouping has no positive impact on average attainment (Kutnick et al., 2005), successive governments have continued to promote ability grouping to raise attainment.

While the Wolf Report (2011) was an attempt to lessen ‘qualifications gaming’ (schools using vocational qualification attainment to boost institutions scores), in reality one type of gaming has been replaced by another. Some schools are systematically adopting the best strategy to maximise their Progress 8 score often at the expense of what might be in the students’ best interests either in relation to the subjects studied or by ‘pushing’ young people out of the educational system.
Restrictions in learner choice
In implementing the EBacc, the DfE (2016) put forward the case that all students should have access to an academic curriculum and that low expectations of students simply serve to entrench educational inequalities. Conversely, others argued (e.g. Greevey et al., 2013) that the EBacc subjects are inappropriate for students who are not academically inclined or have interests in other subjects and have questioned whether EBacc subjects adequately prepare students for vocational pathways. Important here is the issue of learner motivation and the mismatch between a restricted academic curriculum and the interests, aspirations and skills of the students (Rogers, 2016). Secondary teachers have raised the concern that the restriction of subjects may increase disengagement, particularly amongst lower-attaining students (Neumann et al., 2016), at a time when recruitment of new teachers to the profession is struggling and where rates for those leaving teaching are particularly high among early-career teachers of science, maths and languages (Worth et al., 2017).

The effects of pre- and post-16 reforms on learner progression
The cumulative effects of the pre-16 reforms have led to a decline in the proportion of the cohort achieving the recognized threshold for progression to Level 3 study post-16, thus reducing the power of ‘push factors’ that propel young people through the system. At the same time, admissions tutors in post-16 courses will be aware that A Levels have become ‘harder’, particularly for learners on the edges of the A Level cohort. The scaffolding role previously played by AS Levels has been removed with the decoupling of the AS from A Levels; witness the dramatic reduction in AS entries and the overall decline in A Level participation. What has grown and contributed significantly to the proportion of 19-year-olds qualified to Level 3 is Applied General Qualifications and yet the future of these qualifications remains uncertain. This issue will be further exacerbated when T-Levels are implemented since many middle and low attaining learners could be excluding from commencing such a programme. What we could, therefore, be witnessing is the confluence of restrictive factors merging at 16+ rising up from the 14–16 phase and coming down from 16–19 phase.

A perfect storm for middle and lower attainers?
The key factors driving the attainment and participation equilibrium are spreading throughout the upper secondary phase as a whole; reversals in GCSE attainment have been followed by the plateauing of A-level results and similar trends are now taking place in the field of vocational qualifications that have played such an important role in raising Level 3 attainment by the age of 19 over the last 15 years.

But the effects of the new equilibrium or stagnation could have a disproportionate effect on different groups of young people, notably those who lie outside the elite group (the top 30 per cent). Middle and lower attainers (defined by their prior SATs attainment scores) benefitted from the ‘expansion’ of the 14–19 phase under New Labour, resulting in the fact that by 2012 more than two-thirds of the cohort were attaining the threshold to aspire to Level 3 study post-16. While these rises in attainment were not without their progression challenges - for example, relatively high drop-out rates at 17+ - the fact remained that the
progression landscape 14–19 became relatively open (Hodgson & Spours, 2013). This has now changed.

As a result of the new equilibrium we speculate that more 16–year-olds could now be denied access to Level 3 programmes or end up entering courses in which they might not attain as highly as in the previous growth phase (Phase 3). In a decade, therefore, we may have moved from a situation where over two-thirds of the cohort could achieve the threshold to move to Level 3 study at 16 to one in which this form of progression may now be open to a minority. The effects of the stagnation trends appear to be spreading more widely with emerging evidence of social divisions within GCSE outcomes with an increasing gap between the examination results of ‘rich and poor’ (Burgess & Thomson, 2019). Indeed, this socially divisive trend has been noted recently in the broadsheet press (The Guardian, 2020).

The impact of this escalating trend on particular groups of young people in English upper secondary education remains to be investigated further. However, the system data we have collated and analysed thus far suggests that the new stagnating period threatens to freeze the English upper secondary system into a ‘medium’ rather than a high attainment system compared internationally and, with it, opportunities for progression of a sizeable section of 14–19 learners.
Acknowledgements
The authors would like to thank members of the ‘14-19 Alliance’, a discussion forum comprising members of education civil society that meets regularly at UCL Institute of Education, for their valuable input to earlier drafts of this analysis.

Ethical guidelines
Ethics approval was not required, no participants were interviewed as part of this research and all reported data are in the public domain.

Conflict of interest
There is no conflict on interest in the work reported.

Methodological Annex
GCSE timeseries
The data on students gaining five or more GCSEs at grades A*-C were compiled from two sources to provide the thirty-year trendline SCAA (1996a, p.9 cited in Coe, 1999) and DfE (2017). It is acknowledged that during this time significant changes to the population of pupils, the nature of the qualifications, the inclusion of equivalences in addition to different methodological and reporting approaches adopted means that the timeline is in some ways a best approximation. Shadow data (except in Figure 6) is not reported: all figures are based on the methodological approach and the qualifications included in performance tables at that time.

A summary of the changes is provided below.
1. Grades A*-C include GCE O level grades A-C and CSE grade 1 up to 1986/87.
2. GCSE grade A* introduced in 1993/94.
3. Percentages from 1996/97 include GNVQs.
4. Percentages from 2003/04 include other approved equivalent qualifications for pre-16.
5. Percentages up to 2003/4 are based on 15–year-old pupils in all schools. Thereafter percentages are based on pupils at end of Key Stage 4.
6. Percentages from 2009/10 to 2012/13 include international GCSEs as GCSE equivalents.
7. Percentages for 2013/14 are based on the 2014 methodology. The Wolf Review restricted the qualifications counted, prevented qualifications counting as larger than one GCSE, and capped the number of non-GCSEs included in performance measures at two per pupil. Adoption of the early entry policy in subjects counted in the EBacc.
8. 2014/15 early entry policy extended to all subjects.
9. Percentages for 2016/17 include the reformed GCSEs in English language, English literature and mathematics at grades 9-5.

A Level time series
The timeline for participation in Education and WBL age 16–19 derived from two sources: DfES (2005b) and DfE (2018a). The percentage of young people achieving Level 3 by age 19
was sourced from DfE (2019b). Similarly to Key Stage 4 data there were changes to qualifications counted in performance tables, the make-up of the qualifications and how they are assessed.

**Data availability**
The data that support the findings of this study are available in Statistics at DfE [www.gov.uk/government/organisations/department-for-education/about/statistics#statistical-collections] and in The National Archives [www.nationalarchives.gov.uk/]. These data were derived from the following resources available in the public domain:


**References**


It is important to note that attainment is based on the qualifications counted in performance tables at that time. Hence the noticeable ‘drop’ in GCSE attainment between 2013 and 2014 when the number of ineligible qualifications increased following the Wolf Review (2011).
Figure 2. Full-time post-16 participation in Education 1985–2017

Sources: DfES, 2005b and DfE, 2018a
Figure 3. 16–18 participation 1994–2004

Source: DfE 2018a
Figure 4. EBacc component participation in state schools 2010–2018

Source DfE, 2018c. Data labels for students entering zero or one component of the EBacc have been suppressed for ease of reading.
Figure 5. GCSE and equivalent entries by attainment band

Source: DfE, 2018c
Figure 6. The effects of the GCSE methodological change

Source: DfE, 2015
Figure 7. Percentage of young people attaining Level 3 A Level and vocational qualifications by age 19

Source: DfE, 2019b
Figure 8. Level 2 and 3 attainment by age 19 2010–2018

Source: DfE, 2019b
Table 1. Attainment of 5+ O Levels and GCSEs higher grades 1987–1994

<table>
<thead>
<tr>
<th>Academic year ending</th>
<th>Percentage 5+ O Levels/A*-C GCSE All schools</th>
<th>Increase on previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>26.4</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>29.9</td>
<td>3.5</td>
</tr>
<tr>
<td>1989</td>
<td>32.8</td>
<td>2.9</td>
</tr>
<tr>
<td>1990</td>
<td>34.5</td>
<td>1.7</td>
</tr>
<tr>
<td>1991</td>
<td>36.8</td>
<td>2.3</td>
</tr>
<tr>
<td>1992</td>
<td>38.3</td>
<td>1.5</td>
</tr>
<tr>
<td>1993</td>
<td>41.2</td>
<td>2.9</td>
</tr>
<tr>
<td>1994</td>
<td>43.3</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Source: SCAA 1996, p.9 cited in Coe, 1999 with author’s calculation
## Table 2. GCSE attainment 1994–2003

<table>
<thead>
<tr>
<th>Year</th>
<th>5 GCSEs A*-C All schools</th>
<th>5 GCSEs A*-C including English and maths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>43.3</td>
<td>(Not known)</td>
</tr>
<tr>
<td>1995</td>
<td>43.5</td>
<td>(Not known)</td>
</tr>
<tr>
<td>1996</td>
<td>44.5</td>
<td>35.2</td>
</tr>
<tr>
<td>1997</td>
<td>45.1</td>
<td>35.6</td>
</tr>
<tr>
<td>1998</td>
<td>46.3</td>
<td>37.0</td>
</tr>
<tr>
<td>1999</td>
<td>47.9</td>
<td>38.6</td>
</tr>
<tr>
<td>2000</td>
<td>49.2</td>
<td>40.0</td>
</tr>
<tr>
<td>2001</td>
<td>50.0</td>
<td>40.7</td>
</tr>
<tr>
<td>2002</td>
<td>51.6</td>
<td>42.1</td>
</tr>
<tr>
<td>2003</td>
<td>52.9</td>
<td>41.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>5 GCSEs A*-C All schools</th>
<th>Including English and maths All schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>53.7</td>
<td>42.6</td>
</tr>
<tr>
<td>2005</td>
<td>56.8</td>
<td>44.7</td>
</tr>
<tr>
<td>2006</td>
<td>59</td>
<td>45.6</td>
</tr>
<tr>
<td>2007</td>
<td>61.4</td>
<td>46.3</td>
</tr>
<tr>
<td>2008</td>
<td>65.3</td>
<td>47.6</td>
</tr>
<tr>
<td>2009</td>
<td>70.0</td>
<td>49.8</td>
</tr>
<tr>
<td>2010</td>
<td>75.3</td>
<td>53.5</td>
</tr>
<tr>
<td>2011</td>
<td>79.6</td>
<td>59</td>
</tr>
<tr>
<td>2012</td>
<td>81.9</td>
<td>59.4</td>
</tr>
</tbody>
</table>

Source: DfE, 2017
<table>
<thead>
<tr>
<th>Academic year ending</th>
<th>Entering</th>
<th>Achieving</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>21.8</td>
<td>15.1</td>
</tr>
<tr>
<td>2011</td>
<td>21.6</td>
<td>15.4</td>
</tr>
<tr>
<td>2012</td>
<td>23.1</td>
<td>16.2</td>
</tr>
<tr>
<td>2013</td>
<td>35.5</td>
<td>22.8</td>
</tr>
<tr>
<td>2014</td>
<td>38.7</td>
<td>24.2</td>
</tr>
<tr>
<td>2015</td>
<td>38.7</td>
<td>24.3</td>
</tr>
<tr>
<td>2016</td>
<td>39.7</td>
<td>24.7</td>
</tr>
<tr>
<td>2017</td>
<td>38.1</td>
<td>21.3 (grades 9-5 in English and maths) 23.7 (grades 9-4 in English and maths)</td>
</tr>
<tr>
<td>2018 (provisional)</td>
<td>38.4</td>
<td>Replaced by EBacc average point score per pupil</td>
</tr>
</tbody>
</table>

Source: DfE, 2018c
Table 5. Percentage of students achieving GCSE grades across the anchor measures 2012/13–2017/18

<table>
<thead>
<tr>
<th>Academic year ending</th>
<th>A*-A or 9-7</th>
<th>A*-C or 9-4</th>
<th>A*-G or 9-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>22.9</td>
<td>72.2</td>
<td>98.9</td>
</tr>
<tr>
<td>2014</td>
<td>22.3</td>
<td>70.9</td>
<td>98.3</td>
</tr>
<tr>
<td>2015</td>
<td>22.3</td>
<td>70.8</td>
<td>98.5</td>
</tr>
<tr>
<td>2016</td>
<td>21.6</td>
<td>69.4</td>
<td>98.5</td>
</tr>
<tr>
<td>2017</td>
<td>21.2</td>
<td>69.0</td>
<td>98.5</td>
</tr>
<tr>
<td>2018</td>
<td>22.8</td>
<td>70.5</td>
<td>98.2</td>
</tr>
</tbody>
</table>

Source: DfE, 2019a