



Re-examination

**Expanding educational
opportunities for every child**

Working paper 02/2021

June 2021



Summary

This working paper maps the ways in which social disadvantage affects educational outcomes among children and young people, impacting their progression through the education system and ultimately their employment prospects.

Having commissioned Roger Taylor, former Chair of Ofqual, to reflect on the cancellation of examinations during the pandemic, the Centre for Progressive Policy is now looking to build on some of the key issues raised – notably how the education system can better support the development of all young people and ensure that they have every opportunity to gain qualifications and skills that reflect their passions and potential.

This short paper examines the nature and scale of the attainment gap between children of disadvantaged and non-disadvantaged families and how policy makers might start to rethink the role of education and assessment in levelling the playing field.

Key findings



Drawing on the latest available data, we find:

The attainment gap between disadvantaged and non-disadvantaged children is highest in the South East at **30.5%**. It is lowest in London at just **17.6%**.

The average for GCSE Attainment 8 scores in the most deprived decile of England is **43.4** compared to **49.8** in the highest decile.

Students from disadvantaged backgrounds are nearly twice as likely to fail to achieve a level 4 in their maths and/or English GCSE compared to students from non-disadvantaged backgrounds.¹

52.8% of those aged 25–65 who had a parent in a professional occupation have at least a degree as their highest qualification, compared to just **20%** of those whose parents worked in either elementary or process, plant and machine operative occupations.

7% of those who work in professional occupations have a GCSE or lower as their highest qualification, compared to **65%** of those who work in process, plant and machine operative occupations.

38% of those from non-disadvantaged backgrounds continue into higher education (HE), while only **25%** of those from disadvantaged backgrounds will do the same.

58% of students with low prior attainment at GCSE will continue into a further education (FE) college or other FE provider, where funding fell by **24.5%** between 2010/11 and 2018/19.

Key challenges

Background

The cancellation of school examinations in 2020, due to the Covid-19 pandemic, provoked controversy when grades were ultimately assigned via an algorithm.

People were outraged that the grades students were awarded depended not only on their own work, but on predictions based on the performance of previous students at that school. The scandal was resolved when Ofqual allowed predicted grades to be used instead of algorithmically moderated grades. However, the incident raised questions about the fairness of an education system in which the qualifications you achieve depend so much on the school you attended and your socioeconomic background.

Qualifications are an integral feature of the UK labour market. They are a powerful determinant of earnings and employment prospects.

Perhaps the single most powerful driver of social mobility is the extent to which the education system can nurture and develop students so that they can achieve higher qualifications than their parents; the extent to which achievement is not limited by birth. Failure to address unequal outcomes within the education system leads to persistent and widespread inequalities across society. Understanding the causes and consequences of the attainment gaps endemic within the education system is the starting point for change.

Poor results at any stage can shape the educational path of a child and affect their future employment opportunities. Unfortunately, assessment results often do not just reflect the ability of the student, but their level of disadvantage. Social circumstances throughout childhood can have a major impact on the quality of education and access to support.

Exam grades should represent the result of a particular set of assessments at a given time – not a conclusive judgment on a student's worth that leaves them demotivated and stifles their potential. The education system should ensure that every student has the chance to discover new opportunities or change direction. From making available a wider array of qualifications, such as apprenticeships, to providing support for students to try again, there are many steps that can be taken to improve educational outcomes and support social mobility.

To this end, this working paper concludes with a series of high-level issues that CPP will build on, as a means of improving the ways in which qualifications, assessments and the education system as a whole promote social mobility, serve disadvantaged communities and foster inclusive growth.

Learning gaps

A substantial attainment gap exists between students and regions

Every area in England suffers from an attainment gap² between disadvantaged and non-disadvantaged students when it comes to GCSE results. However, the relative gap is worse in some of the most prosperous areas of the country, such as Sevenoaks and Tunbridge Wells.

A clustering of poor performing areas means that the attainment gap reaches as high as 27.9% in the South West and 30.5% in the South East.



Chart 1: GCSE attainment gap between disadvantaged and non-disadvantaged students by region, 2019

Source: CPP analysis of Department for Education Key Stage 4 performance data (2020)³

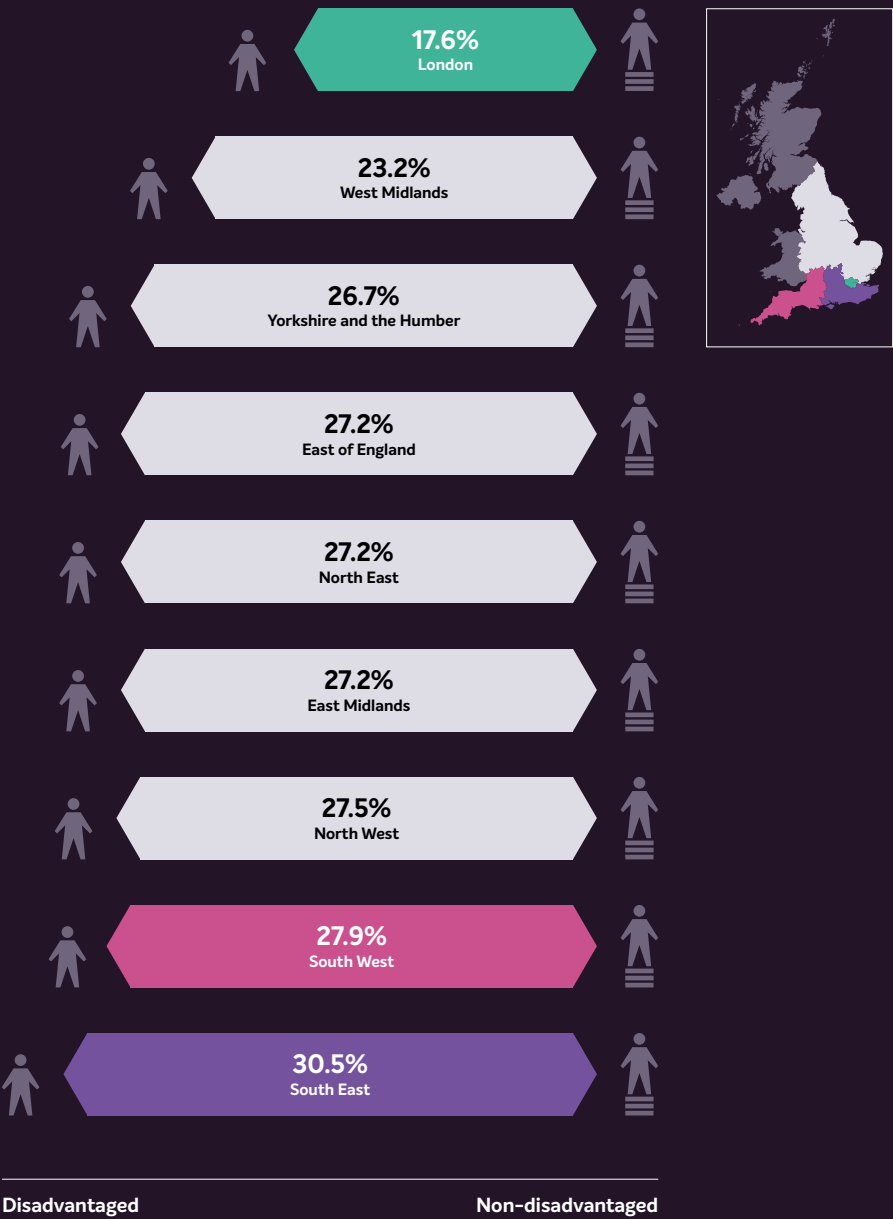


Chart 2: Average attainment gap by local authority

Source: CPP calculations⁴

Attainment gap, %

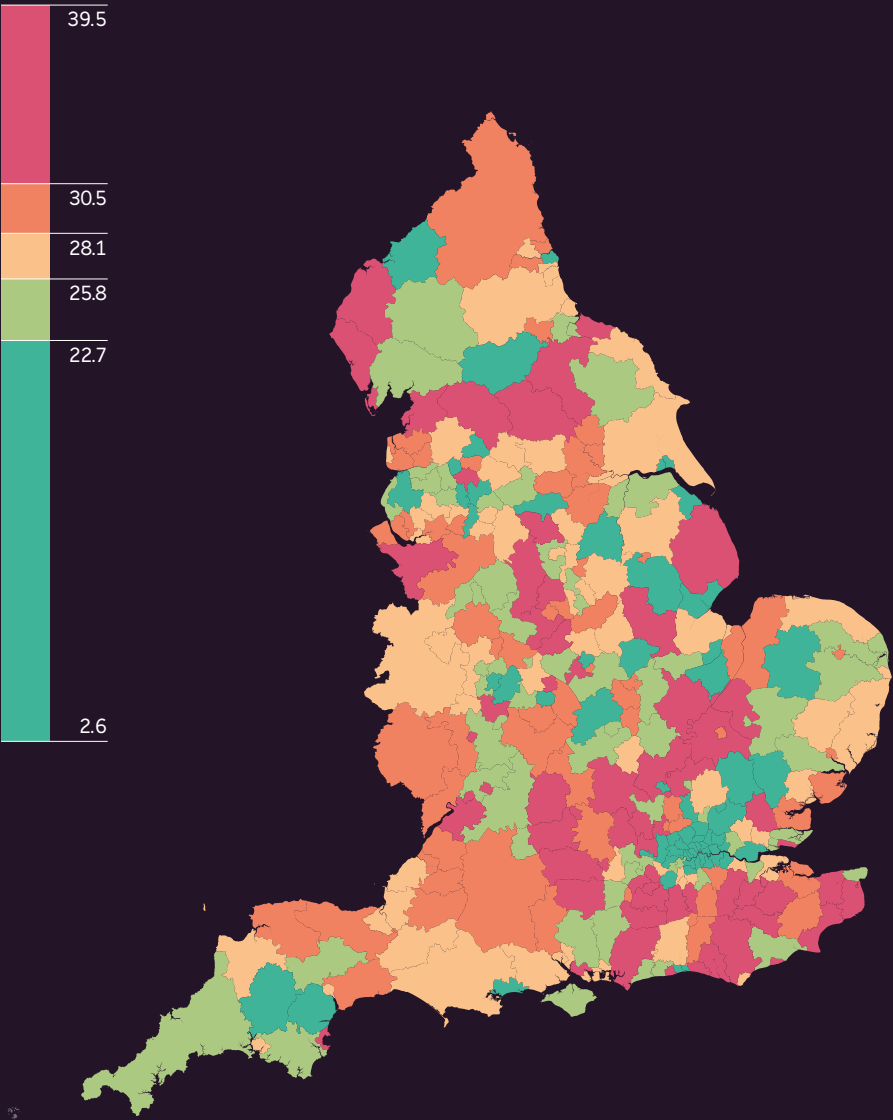
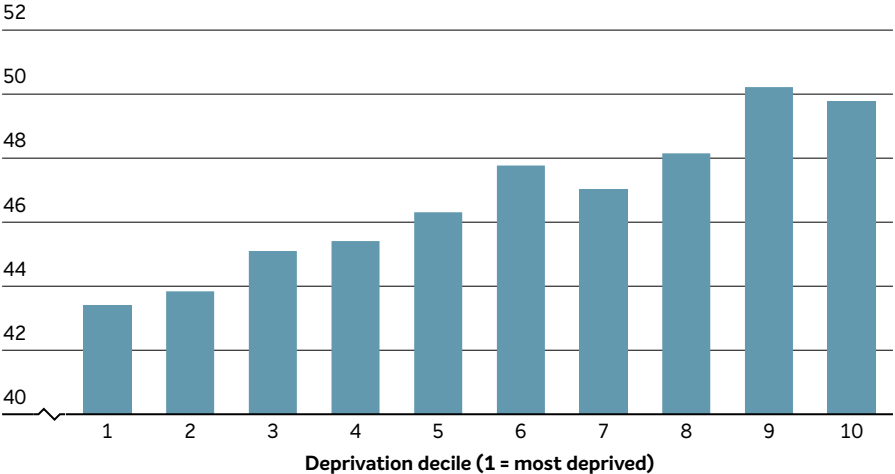


Chart 3: Average Attainment 8 score by decile of deprivation

Source: CPP analysis of Department for Education Key Stage 4 performance data (2020)⁵ and MHCLG English Indices of Deprivation data (2019)⁶

Attainment 8 score



Beyond the attainment gap, there is evidence that GCSE exam results are systemically worse in deprived communities

Analysis of average Attainment 8 scores shows that students living in the most deprived areas of England score just 43.4 on their GCSEs while those living in more affluent communities have an average score of 49.8.

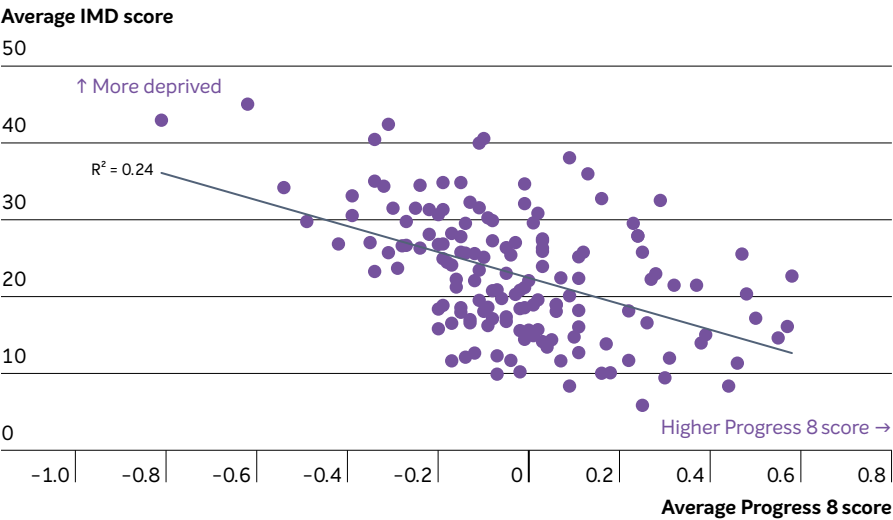
This demonstrates huge geographic variation in exam results, with non-disadvantaged students in deprived communities performing comparatively worse than their non-disadvantaged peers in more affluent areas.

43.4

Children living in the most deprived areas of England score on average just 43.4 on their GCSEs

Chart 4: Relationship between multiple deprivation and Progress 8 scores

Source: CPP analysis of Department for Education Key Stage 4 performance data (2020)⁷ and MHCLG English Indices of Deprivation data (2019)⁸



Not only do students in deprived communities perform worse, they are less likely to make progress through their time in education

There is a strong negative relationship between Progress 8 scores and Index of Multiple Deprivation (IMD) scores. Progress 8 scores measure the performance of students at Key Stage 4, relative to students across the nation who achieved a similar level of attainment during Key Stage 2.⁹

Positive scores indicate a better performance on average, while negative scores imply a worse performance. Those areas that score 0 do just as well as the national average.

Chart 4 demonstrates that Progress 8 scores negatively correlate with IMD scores, implying deprived areas are more likely to post negative Progress 8 scores.

Chart 5: Progress 8 scores by local authority

Source: CPP analysis of Department for Education Key Stage 4 performance data (2020)¹⁰ and MHCLG English Indices of Deprivation data (2019)¹¹

Average Progress 8 score

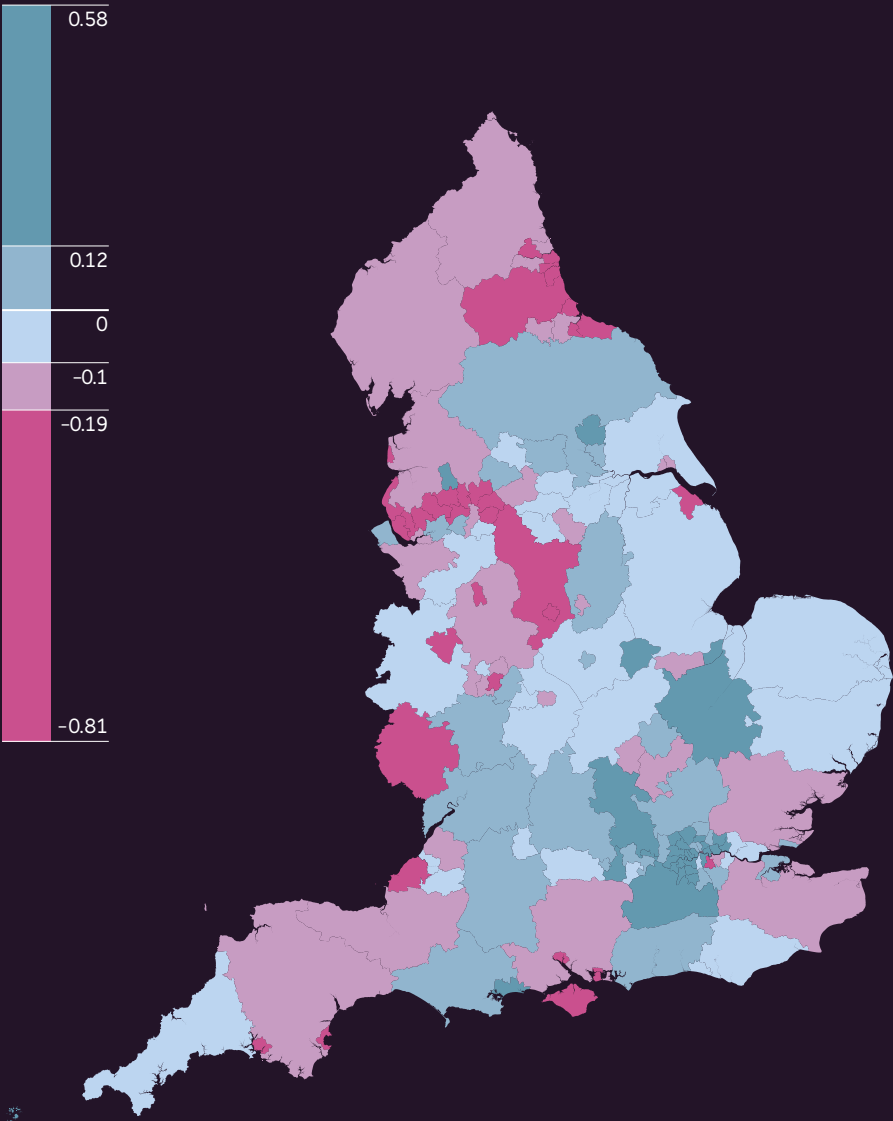


Chart 6: Key Stage 4 student destination by prior attainment and social background, 2017/18

Source: Department for Education (2019) Destinations of KS4 and KS5 students, 2018¹²

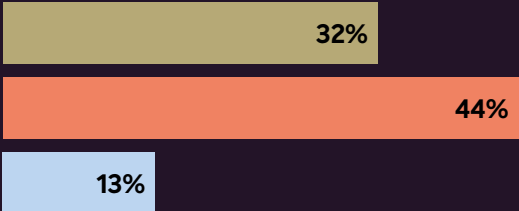
- Further education college or other FE provider
- School sixth form (state funded)
- Sixth form college

Disadvantaged pupils

Did not achieve a pass in English and maths at grade 4 or above



Achieved a pass in English and maths at grade 4 or above

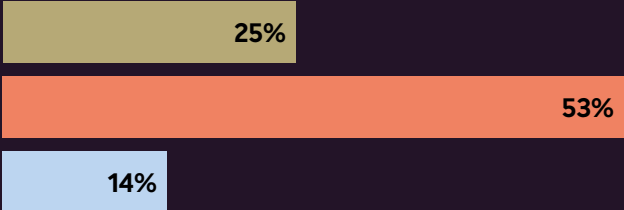


All other pupils

Did not achieve a pass in English and maths at grade 4 or above



Achieved a pass in English and maths at grade 4 or above



Blocked pathways

GCSE results play an important role in determining the educational path of a child, but so too does their socio-economic status

Looking at maths and English grades, students who perform badly at GCSE are more likely to go on to an FE college than a school sixth form.

Those from deprived backgrounds are nearly twice as likely (1.9 times) not to achieve a level 4 grade in maths and/or English. Students with low prior attainment, regardless of their level of disadvantage are also far more likely to attend an FE college.

Over half (56%) of students with low prior attainment continue into an FE college, while just 10% continue into a school sixth form.

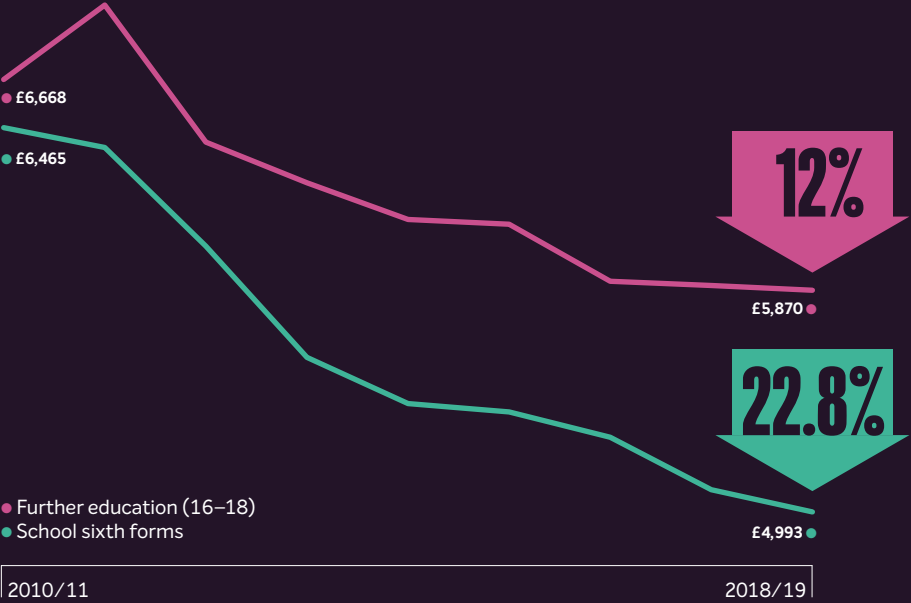
In contrast, 53% of students who achieve above level 4 continue into a school sixth form, but even among those with higher grades, a larger portion of disadvantaged students (32%) continue into FE colleges, than those from non-disadvantaged backgrounds (25%).

Providing economic opportunities to all young people requires FE to offer effective routes to high-quality learning and employment outcomes, especially for those with lower prior attainment during their secondary school education. Disadvantaged students should not be channeled into FE by default; those who could excel in Higher Education, for example, should be given every encouragement and opportunity to do so.



Chart 7: Spend per FTE student 2010/11 to 2018/19 (2019/20 prices)

Source: Institute for Fiscal Studies (2019)¹³



Despite FE colleges playing an important role in the education of disadvantaged students and those who underperformed during their GCSEs, their capacity has been eroded by austerity

Total spending on FE colleges fell by 24.5% between 2010/11 and 2018/19. This translated into a 12% fall in per head spending among students in full-time education.

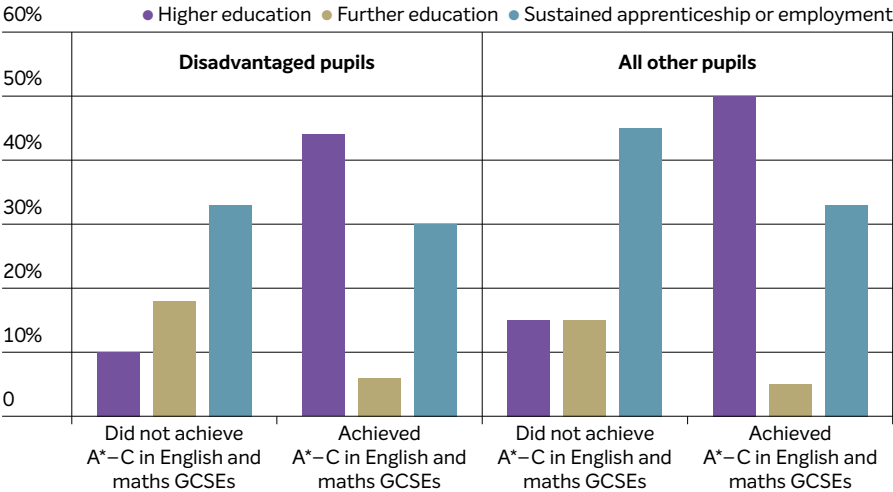
The situation has been even worse in school sixth forms with a 27.4% fall in total funding and 22.8% fall in per head funding during the same period.

This however disguises some of the challenges that face FE colleges, which are more likely to provide technical qualifications that cost more to deliver and who take on the burden of high fixed costs, which can be more equitably shared in sixth forms across the entire school.

Both types of institution play an important role in the educational development of young students and rely on adequate resourcing to ensure they are equipped to deliver high-quality teaching and learning.

Chart 8: Post-18 destination by prior attainment and social background, 2016/17

Source: Department for Education (2019) Destinations of KS4 and KS5 students, 2018¹⁴



Disadvantaged students continue to feel the sting of poor prior attainment and social status, even when their time in secondary education comes to an end

While 38% of non-disadvantaged students continue into higher education (HE),¹⁵ only 25% of disadvantaged students do the same.

Only 10% of those from disadvantaged backgrounds with lower prior attainment continue into HE, compared to 15% of those from non-disadvantaged backgrounds with low-prior attainment.

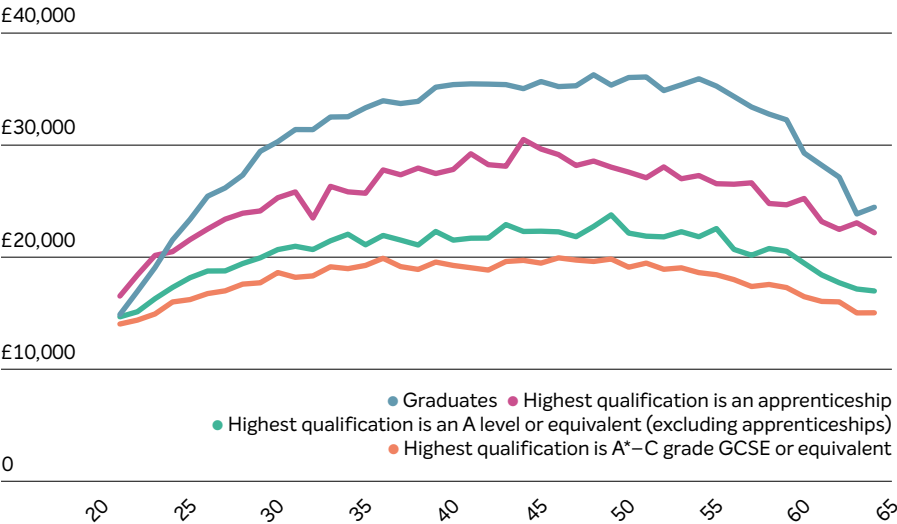
However, even among those students who do achieve level 4, there remains a 6-percentage-point gap between progress into HE among disadvantaged and non-disadvantaged students.

10%
Only 10% of those from disadvantaged backgrounds with lower prior attainment will continue into higher education

Social immobility

Chart 9: Median gross annual wage by qualification level and age, 2017

Source: Office for National Statistics (2018)¹⁶



Poor performance at GCSE level is a strong predictor of lower qualification levels, which in turn can negatively impact earnings and employment prospects

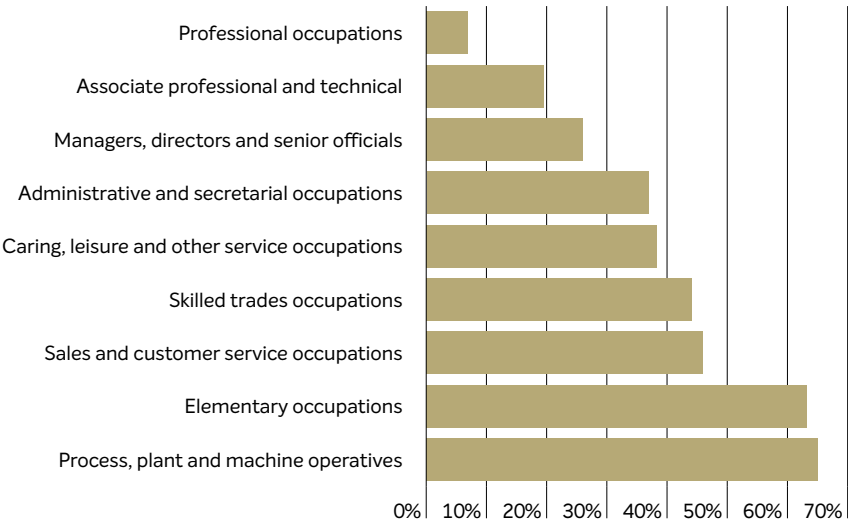
While those in their early twenties¹⁷ have relatively similar earnings regardless of qualification level, the divergence is clearer among older adults. Those in their mid-forties with a degree boast a median annual wage of over £35,000 per annum.

In contrast, those in a similar age category whose highest qualification is a GCSE have an average median wage of below £20,000.

This suggests that those with higher qualifications will enjoy a sharper increase in their earnings the longer they are in work, and substantially higher peaks compared to their peers with lower qualifications.

Chart 10: Proportion of workers with GCSE or lower as their highest qualification by major occupational grouping, 2019

Source: CPP analysis of Labour Force Survey (2019)¹⁸



Those with lower qualifications are heavily represented in low-paid occupations

Analysis of the Labour Force Survey shows that over 3 in 5 workers in elementary (63.2%) and process, plant and machine operator (65%) occupations only have a GCSE or lower as their highest qualification.

In contrast, only 7% of those in professional occupations have lower level qualifications.

3 in 5
Over 3 in 5 workers in elementary and process, plant and machine operator occupations only have a GCSE or lower as their highest qualification

Chart 11: Proportion of UK adults, aged 25–65 by qualification level and parental occupation

Source: CPP analysis of Labour Force Survey, June–September 2019¹⁹



Qualification level and the subsequent impact on earnings and professional attainment is a deeper reflection of social background

Among UK adults aged 25–65, an estimated 52.8% of those who had a parent working in a professional occupation hold a degree. In contrast, only 20% of those who had a parent working in an elementary or process and machine operation occupation have a degree.

Meanwhile, among the latter group, 49% have a highest qualification of either a GCSE or lower. This is indicative of a qualification system that is failing to develop, and reward children born into families with a lower socio-economic status.

20%

Only 20% of those who had a parent working in an elementary or process and machine operation occupation have a degree



Key ideas to explore

Qualifications play a critical role in determining employment opportunities and earnings throughout working life. However, success in higher level qualifications is heavily influenced by social circumstances and educational opportunities. Too many children will have their life chances hampered because of their social background or a poor performance in a GCSE exam.

The education system should ensure that every child can develop and provide routes to qualifications and skills that reflect the diversity of young people's circumstances, interests and abilities. To this end, we will explore a number of key ideas for reform, including:

1

From blocked pathways to expanded opportunities: too many children live with the legacy of under-performing during their GCSE exams. This can leave them with no clear routes forward, limited support in making choices, and few high quality educational options. Some are trapped in a demoralising spiral repeating the same examination or cycling through low value qualifications without success. *Some progress has been made on this following the Wolf Review (2011) and hope rests on the successful roll out of T-levels, but what more needs to be done to create a clear and streamlined system of qualifications (for both learners and employers) that improves people's prospects for further study and high quality employment? And, more importantly perhaps, how might we need to rethink our approaches to teaching and learning to support all students to thrive – not just the 50% who perform well at GCSE?*

2

From financial retrenchment to proportionate investment: funding cuts have disproportionately impacted further education in recent years. It is time to recognise that this is a pivotal time in the educational journey of young people and secure, proportionate investment should be made into their development. Investment is crucial, so that schools and colleges have the facilities, resources and teaching staff to deliver the high-quality courses so greater targeted support can be offered to help students in need. Government has started to emphasise the importance of skills, training and the FE sector as part of the pandemic recovery programme and its levelling up agenda. *How can we best invest in the FE sector – and education more generally, including early years and schools – if we are to close the attainment gap between young people from disadvantaged and non-disadvantaged families within and between the English regions? How might the funding mechanism better support collaboration between institutions to provide suitable pathways for all students?*

3

From exam factories to nurturing development: the assessment system is of vital importance and schools should aim to prepare students as much as possible to perform well in examinations. However, the high stakes nature of the accountability regime, the way it is used to judge teachers and school performance, together with marking schemes that encourage teaching to the test, creates incentives that are most damaging to the education of the most disadvantaged. Education that focuses on meeting a strict criteria, rather than developing a broad understanding of the curriculum, or which bars some students from certain courses at an early stage, in fear they may underperform, will not necessarily provide students with the skills they need to carry on into further study or employment.²⁰ *What have we learned from 2020 and 2021 about how we should think about the relationships between teaching, learning, assessment and accountability – especially within the context of persistent, often highly place-based educational and attainment gaps?*



4

From rigid timetables to flexible arrangements: while assessments need to allow for standardised grading, it is important to note that the learning needs of students will differ. Classroom teaching is suited to preparing a whole class for a fixed assessment date. It is less well suited to pupils progress at very different speeds. Fixed assessment windows are necessary for grading some qualifications, but others allow for on demand testing. We need to think about how teaching both in the classroom and online, along with self-driven learning, and on demand assessments can support more flexible education arrangements to suit more diverse needs. *How else might this principle – in which the assessment system is better adapted to the needs of students who have the potential to achieve with a little extra support – be applied to enable all young people to thrive? How might more flexible arrangements be applied to support people returning to education and training either full time or whilst working or undertaking caring responsibilities?*

5

From scattered data to transparent information: the education and assessment system combine to equip students with the skills they will need to participate in the world of work. Unfortunately, a level of opaqueness hinders the skills system, with insufficient transparency on student destination data, areas of study and how this relates to skills demand within the local economy.²¹ *How can government enable ready access to more granular and accessible public data to support learners, local policy makers and other stakeholders to make informed decisions about the quality and availability of education opportunities? How might this help to better align provision with local labour market needs? How can we go beyond technical analysis of datasets by qualified researchers, and put data in the hands of potential learners so they understand better the options and trade-offs involved in committing to a learning programme?*

Endnotes

- 1 Those who receive below grade 4 in their maths and/or English GCSE are considered students with low prior attainment throughout this briefing.
- 2 The attainment gap is calculated using Attainment 8 scores from every local authority. We take the difference between the average scores for non-disadvantaged and disadvantaged students and calculate this as a proportion of the non-disadvantaged scores. A larger score implies a larger gap.
- 3 Department for Education [DfE] (2020) Key Stage 4 performance 2019 (revised). Available at: <https://www.gov.uk/government/statistics/key-stage-4-performance-2019-revised>
- 4 Average attainment gap calculated using average Attainment 8 scores for disadvantaged and non-disadvantaged students. The difference between the scores was taken and calculated as a percentage of non-disadvantaged Attainment 8 scores.
- 5 Ibid. 3.
- 6 Ministry of Housing, Communities and Local Government [MHCLG] English indices of deprivation 2019. Available at: <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019>
- 7 Ibid. 3.
- 8 Ibid. 6.
- 9 The Progress 8 score for individual students is the difference between their Attainment 8 score and the average Attainment 8 score among those in their prior attainment group.
- 10 Ibid. 3.
- 11 Ibid. 6.
- 12 Department for Education [DfE] Statistics: destinations of key stage 4 and 16–18 (KS5) students. Available at: <https://www.gov.uk/government/collections/statistics-destinations>
- 13 Britton, J., Farquharson, C., and Sibiet, L. (2019) 2019 annual report on education spending in England, Institute for Fiscal Studies [IFS]. Available at: <https://www.ifs.org.uk/publications/14369>
- 14 Ibid. 12.
- 15 Level 4 and above, equivalent to an undergraduate degree course.
- 16 Office for National Statistics [ONS] The mean and median gross weekly and gross hourly earnings measured by highest education qualification. Available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/adhocs/008042themeanandmediangrossweeklyandgrosshourlyearningsmeasuredbyhighesteducationqualification>
- 17 The divergence between graduate earnings and others begins to diverge more sharply among those aged 25 and above. This potentially reflects the slightly later age that graduates may be expected to enter the labour market.
- 18 Estimates calculated by taking the average mean of data collected from the four quarterly Labour Force Surveys [LFS] conducted in 2019.
- 19 Analysis using the July–September LFS survey conducted in 2019.
- 20 Hutchings, M. (2015) *Exam Factories? The impact of accountability measures on children and young people*. Available at: https://www.researchgate.net/publication/309771525_Exam_Factories_The_impact_of_accountability_measures_on_children_and_young_people
- 21 Previous CPP research has highlighted the impact lack of accessible, transparent data has had on the skills system: <https://www.progressive-policy.net/publications/the-data-deficit-why-a-lack-of-information-undermines-the-uk-skills-system>

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About the Centre for Progressive Policy

The Centre for Progressive Policy is a think tank committed to making inclusive economic growth a reality. By working with national and local partners, our aim is to devise effective, pragmatic policy solutions to drive productivity and shared prosperity in the UK.

Inclusive growth is one of the most urgent questions facing advanced economies where stagnant real wages are squeezing living standards and wealth is increasingly concentrated. CPP believes that a new approach to growth is needed, harnessing the best of central and local government to shape the national economic environment and build on the assets and opportunities of place. The Centre for Progressive Policy is funded by Lord Sainsbury and host of the Inclusive Growth Network.

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