Research Briefing 3:

Apprenticeships

June 2019

CENTRE FOR VOCATIONAL EDUCATION RESEARCH

National Institute of Economic and Social Research

Impetus

Impetus transforms the lives of young people from disadvantaged backgrounds by ensuring they get the right support to succeed in school, in work and in life. We find, fund and build the most promising charities working with these young people, providing core funding and working shoulder-to-shoulder with their leaders to help them become stronger organisations. In partnership with other funders we help our charities expand and we work to influence policy and decision makers so that young people get the support they need.

The National Institute of Economic and Social Research (NIESR) is Britain's longest established independent research institute, founded in 1938. Our mission is to carry out research into the economic and social forces that affect people's lives and to improve the understanding of those forces and the ways in which policy can bring about change. The Institute is independent of all party political interests and is not affiliated to any single university, although our staff regularly undertake projects in collaboration with leading academic institutions.

The Centre for Vocational Education Research (CVER), launched in March 2015 and funded by the Department for Education, is a research institution that will advance our understanding of the requirements for vocational education in the UK today, identify the challenges in provision of vocational education, and develop and strengthen the knowledge-base to enable a more agile, relevant and needs-based vocational education sector to become a driving force for economic growth and social mobility, as it is in other countries."

Author: Ben Gadsby

Data processing and outputs: Dr Matthew Bursnall, Dr Héctor Espinoza, Jamie Moore, Dr Stefan Speckesser (all NIESR and CVER)

@ImpetusPEF
#YouthJobsGap

Contents

Executive Summary

Apprenticeships are one of the most topical issues in domestic politics, with significant reform in recent years, from the move to standards and the introduction of the Apprenticeship Levy.

This briefing analyses the Longitudinal Educational Outcomes (LEO) data to paint a clearer picture on disadvantaged young people and apprenticeships than ever before, including differences between different English regions. Differences at a local authority level will be explored further in a future briefing.

The growth in apprenticeship starts in recent years has been disproportionately among disadvantaged young people, and they are now more likely to start an apprenticeship than their better-off peers.

But this is mostly a reflection of different levels of qualification. Young people with top GCSEs are much less likely to start an apprenticeship than those without good GCSEs at age 16. This latter group is disproportionately disadvantaged, leading to disadvantaged young people being more likely to start an apprenticeship overall. Comparing disadvantaged young people to their similarly qualified but better-off peers, this difference disappears.

There are also differences in the highest level of apprenticeship young people do. Those without good GCSEs are much more likely to have Level 2 as their highest level of apprenticeship than those with top GCSEs, who are much more likely to have started an apprenticeship at Level 3. But there are gaps between disadvantaged young people and their similarly qualified but better-off peers – disadvantaged young people about seven percentage points more likely to be stuck with their highest apprenticeship start being at Level 2.

There are also sizable regional differences. A clear north-south divide, with young people in the north much more likely to start an apprenticeship than those from the South East or London. These differences disappear when considering differing levels of disadvantage and qualification in different regions.

Ahead of the Spending Review and with increasing calls for a review of the Apprenticeship Levy in its third year, apprenticeships promise to be a topic the new Prime Minister cannot ignore. These figures show that differences in outcomes for disadvantaged young people is a factor for policymakers to consider.

Introduction

Young people from disadvantaged backgrounds are known to do less well at school – they are half as likely to achieve good GCSEs by age 16 as their better-off peers.[1] They are also more likely to struggle to progress from education into the workplace, as our *Establishing the Employment Gap* report found.[2]

Apprenticeships have long been positioned as an important option for students who do not take academic routes, as well as helping to solve problems like sector-specific skills shortages and macro level sluggish productivity growth. In that sense, they are an important part of any industrial strategy. And there has been wholesale change within the apprenticeship landscape recently, with the move from frameworks to standards setting out course content, the growth of higher and degree apprenticeships and the introduction of the Apprenticeship Levy.

But historically they have been a minority route – the very first government destination data found that just 2% of young people who entered A-levels (or equivalent) in 2008/09 went on to an apprenticeship immediately. For the Key Stage 4 cohort of the same year, the equivalent figure was 4%.[3] Of course, many people who start apprenticeships do so in later years, rather than in their late teens.

This report brings to light new findings on the access to apprenticeships by disadvantaged young people. It's a retrospective look at school leavers across six cohorts from 2007 to 2012 and their access to apprenticeships by the end of the 2016/17 academic year.

This is the third of a series of briefings taking advantage of the new Longitudinal Education Outcomes (LEO) dataset to explore questions around life chances for disadvantaged young people in detail, following on from a report looking at NEET rates released in April 2019[4], and higher education in June 2019[5]. Subsequent briefings will explore the more detailed picture in the regions, how long-term NEETs are faring, and which young people are managing the move from NEET into EET.

LEO links administrative data from schools and universities, along with further education records, with job records. This enables us to investigate the relationship between qualifications, disadvantage and apprenticeships in an authoritative manner. Since it is administrative data, it covers almost all learners going through the system into employment.

The approach is summarised on the inside back cover, and full details of the methodology used can be found in the accompanying document *Methodology for the Youth Jobs Gap*. This includes a discussion of some caveats associated with the new LEO dataset. As with government reports based on LEO, it is important to say that these are experimental statistics and feedback on methodology is welcome. Nonetheless, LEO is the currently best available data source, offering better insight into the situation than any previous data set. Contributions, engagement and comments are encouraged via info@impetus.org.uk.

The levels of disadvantage and qualification in each region are summarised in the following tables. The *Methodology for the Youth Jobs Gap,* and the quick start guide on the inside back cover, outline the terms used here:

Table 1: Levels of disadvantage in each region

Region	Proportion of young people from disadvantaged backgrounds
East Midlands	11%
East of England	9%
London	24%
North East	17%
North West	17%
South East	9%
South West	9%
West Midlands	17%
Yorkshire and the Humber	15%

Table 2: Levels of qualification in each region

Region	Proportion of young people without good GCSEs	Proportion of young people with top GCSEs
East Midlands	40%	47%
East of England	37%	51%
London	36%	51%
North East	42%	45%
North West	39%	48%
South East	36%	52%
South West	37%	50%
West Midlands	41%	46%
Yorkshire and the Humber	43%	44%

"Without good GCSEs" refers to young people with fewer than five GCSEs at grades A*-C, and missing at least one of English and maths, at age 16. "Top GCSEs" refers to young people with five GCSEs at grades A*-C, including English and maths, at age 16. For more details, see the inside back cover.

Table 3: Levels of qualification and disadvantage in each region (major groups)

	Proportion of young people who are			
	Without good GCSEs		With top GCSEs	
	Non-disadvantaged		Non-disadvantaged	
Region		Disadvantaged		Disadvantaged
East Midlands	33%	7%	45%	2%
East of England	31%	6%	48%	2%
London	24%	12%	43%	9%
North East	31%	12%	41%	3%
North West	28%	11%	44%	4%
South East	31%	6%	50%	2%
South West	31%	6%	48%	2%
West Midlands	30%	10%	42%	4%
Yorkshire and the Humber	33%	10%	42%	3%

I: Access to apprenticeships

The first question is, which types of young people take up apprenticeships?

The national picture

Overall, across the six cohorts in our analysis, 7% of young people started an apprenticeship by 2016/17. The equivalent figure for higher education was 42%, underlining the extent to which apprenticeships are a route less travelled.

The rate grows slightly from cohort to cohort between 2007 to 2010, peaking at 8%. Since young people in later cohorts have had less time to start an apprenticeship, this is clear evidence of the well-publicised growth in apprenticeship starts. The 2011 and 2012 cohorts are slightly less likely to have started an apprenticeship than the 2010 cohort. This could be the effect of having less time to start an apprenticeship – the 2012 cohort are barely in their early 20s by the end of the study period.

This take up varies by disadvantage. Overall, 9% of disadvantaged young people started an apprenticeship, compared to 7% of their better-off peers. But within this lies a remarkable change. Members of the 2007 cohort from disadvantaged backgrounds were actually slightly less likely to start an apprenticeship than their better-off peers. Among the 2012 cohort, they were around three percentage points, or 40%, *more* likely to start an apprenticeship – the growth[i] in apprenticeship starts has been disproportionately amongst disadvantaged young people.

As well as looking at disadvantage, we can also consider which qualifications are most closely correlated with starting an apprenticeship. While 3% of those with top GCSEs (five A*-C including English and maths at age 16) subsequently started an apprenticeship, a full 12% of those without good GCSEs did so. And this group is where the growth is concentrated – just 7% of young people from the 2007 cohort who didn't have good GCSEs started an apprenticeship, rising to a peak of 16% from the 2010 cohort. This is a dramatic change in a very short space of time. For many families, this represents a younger sibling being twice as likely to go on to an apprenticeship as one only a few years older.

With disadvantaged young people being more likely than their better-off peers to leave school without good GCSEs, the intersection of these two variables is crucial. And it shows that the finding that disadvantaged young people are more likely to do apprenticeships is entirely a qualification effect. Among those with top GCSEs, disadvantaged young people are equally as likely to do an apprenticeship as their better-off peers. Among those without good GCSEs, the better-off are more likely, although that gap has closed to zero for the 2010 and 2011 cohorts.

[i] When we say growth here, we mean growth in uptake of apprenticeships in later cohorts, which isn't quite the same thing as growth in apprenticeship starts over time.

This is an important finding. It would be easy to say that disadvantaged young people are more likely to start an apprenticeship than their better-off peers. But this ignores the impact of qualifications, which present a different picture. The importance of these two factors combined should be remembered when analysing any topline apprenticeship data.

Looking at the apprentice population

As well as looking at the likelihood of different groups of young people starting an apprenticeship, we can look at the makeup of those young people who have done so.

Looking first at disadvantage, the growth in apprenticeships is concentrated among disadvantaged young people. Just 12% of those from the 2007 cohort who went on to apprenticeships were from a disadvantaged background, compared with over 20% of the 2010-2012 cohorts. Similarly, while 60% of those from the 2007 cohort who went on to apprenticeships did not have good GCSEs, this peaked at 73% of the 2010 cohort. The proportion of apprentices with top GCSEs correspondingly fell, from 26% to a low of 15%. Overall, these groups consistently account for around 85% of all apprenticeship starts.

Again, we can look at the intersection of these two variables. Overall, 53% of apprenticeship starts are by non-disadvantaged young people without good GCSEs. There are more starts by non-disadvantaged young people with top GCSEs (18% of starts) than disadvantaged young people without good GCSEs (14%). Overall, 85% of young people starting an apprenticeship come from one of these three groups.

Variation by region

The LEO data can break down these figures by the region and local authority young people went to school in. As we found in *Establishing the Employment Gap,* variations within the regions are generally greater than variations between them, and these will be explored later in the *Youth Jobs Gap* report series.

In many regions, the number of disadvantaged young people with five GCSEs starting an apprenticeship from some cohorts is too low to be meaningfully analysed. For example, there are barely 100 such young people nationally among the 2008 cohort. This section is therefore based on the 2009 cohort only, which provides the most meaningful data.

Looking first at the overall apprenticeship start rate of young people in each region, there is a clear north-south divide (Table 4).

Table 4: Young people from the North are much more likely to start an apprenticeship than those from the South

Region	Enrolment rate
North East	9%
Yorkshire and the Humber	9%
North West	9%
East Midlands	8%
South West	8%
West Midlands	8%
East of England	6%
South East	5%
London	4%

The top three regions with the largest share of young people starting an apprenticeship are all in the North, with the bottom three all in the South. Indeed, a young person from London is less than half as likely to start an apprenticeship than a young person from the North East. The table gives a slightly different impression due to rounding, as the gap between London and the South East is actually closer to 2% than 1%.

It makes sense that regions that send higher proportions of young people on to higher education send fewer on to apprenticeships, although some of course do both. Nonetheless, there are many young people (over 40%) not taking either route, of whom some should be in policymakers' sights as beneficiaries of apprenticeships.

London's uniqueness extends into looking at the gap between disadvantaged young people and their better-off peers (Table 5).

Table 5: Disadvantaged young people from London are much less likely to start an apprenticeship than young people in any other region

Region	Start rate (non-disadvantaged)	Start rate (disadvantaged)	Gap
North West	8%	11%	-3%
South West	8%	11%	-3%
North East	9%	11%	-2%
Yorkshire and the Humber	9%	10%	-1%
East Midlands	8%	10%	-2%
West Midlands	8%	8%	-1%
South East	5%	8%	-2%
East of England	5%	7%	-1%
London	4%	4%	-1%

The gaps in Table 5 are negative, reflecting the fact that disadvantaged young people are more likely to start an apprenticeship than their better-off peers. The gaps are also generally quite small, reflecting an almost equal uptake of apprenticeships by both groups (and in some cases may not be statistically significant).

There is much more variation in the rate of apprenticeship take up among disadvantaged young people than their better-off peers, and they are 2.5 times more likely to take up an apprenticeship in the North West as London.

Differences in apprenticeship starts by qualification are similarly pronounced (Table 6).

Table 6: Young people without good GCSEs are twice as likely to start an apprenticeship if they are from the North West as if they are from London

Region	Start rate (without good GCSEs)	Start rate (top GCSEs)
North West	14%	4%
North East	14%	5%
Yorkshire and the Humber	13%	5%
South West	13%	4%
East Midlands	13%	4%
West Midlands	11%	4%
South East	9%	3%
East of England	9%	3%
London	7%	2%

London is bottom in both groups, with young people without good GCSEs half as likely to start an apprenticeship as they are in the North West. This group is much more likely to start an apprenticeship than young people with top GCSEs in all regions.

Finally, we can bring together both qualification and disadvantage at the regional level, which presents a fascinating picture (Table 7).

Table 7: The gap in apprenticeship starts is non-existent when looking at similarly qualified young people

	Without good GCSEs			Top GCSEs		
	Non-disadvantaged			Non-disadvantaged		
Region		Disadvantaged	Gap		Disadvantaged	Gap
North West	14%	14%	0%	4%	4%	0%
North East	14%	13%	1%	5%	5%	0%
South West	13%	13%	0%	4%	5%	-1%
Yorkshire and the Humber	14%	12%	1%	5%	4%	0%
East Midlands	13%	12%	1%	4%	5%	-1%
West Midlands	12%	10%	1%	4%	3%	1%
South East	9%	9%	0%	3%	3%	-1%
East of England	9%	8%	1%	3%	3%	0%
London	7%	6%	1%	2%	2%	0%

Effectively, when you compare similarly qualified young people to their better-off peers in a given region, both groups are equally likely to start an apprenticeship. This holds even though different regions have noticeably differing proportions of their young people access apprenticeships.

Looking at the student population

Having analysed the proportion of each group of young people starting an apprenticeship, we can also ask the reverse to see what percentage of those young people who start an apprenticeship have a particular characteristic. For example, what proportion of young people who start an apprenticeship are from disadvantaged backgrounds? (Table 8)

Table 8: A quarter of apprentices from London are from disadvantaged backgrounds, compared to one in ten in the East of England

Region	Proportion of apprentices from disadvantaged backgrounds
London	27%
North West	23%
North East	19%
West Midlands	18%
Yorkshire and the Humber	17%
East Midlands	13%
South East	12%
South West	12%
East of England	11%

These findings are unsurprising – we know London has a higher level of disadvantage compared to other regions, so it follows that the group of young people going on to an apprenticeship is also more likely to be disadvantaged. Seeing the North West in a clear second place is more of a surprise – other regions have similar proportions of disadvantaged young people, and so we cannot apply the same logic. This is borne out by looking at the extent to which disadvantaged young people are overrepresented among apprentices (Table 9).

Table 9: Disadvantaged young people are especially overrepresented among apprentices in the South East and North West

Region	Extent to which disadvantaged young people are underrepresented among apprentices
South East	1.34
North West	1.34
South West	1.32
East of England	1.23
East Midlands	1.19
North East	1.14
Yorkshire and the Humber	1.14
London	1.11
West Midlands	1.07

Disadvantaged young people are overrepresented among apprentices in all regions of England. But this varies, from being only slightly overrepresented in London and the West Midlands, to significantly so in the South East and North West.

The fact that the South East comes top on this particular measure speaks to the importance of factoring in context. Looking at the headline numbers in Table 8 shows that the South East has a fairly low share of apprentices from a disadvantaged background. But this is just a reflection of the low numbers of disadvantaged young people to start with.

We already know that differences in qualification outcome are a significant factor in this, as young people without good GCSEs are much more likely to start apprenticeships. While there is some variation in these figures at a regional level, the real insight comes from combining them with disadvantage (Table 10).

Table 10: Non-disadvantaged young people without good GCSEs make up around half of apprentices

	Proportion of university starters			
	Without good GCSEs		Top GCSEs	
	Non-disadvantaged		Non-disadvantaged	
Region		Disadvantaged		Disadvantaged
East of England	53%	8%	25%	1%
South East	53%	10%	23%	1%
East Midlands	52%	10%	24%	1%
South West	52%	9%	25%	1%
Yorkshire and the Humber	51%	14%	21%	1%
West Midlands	49%	14%	22%	2%
North West	49%	19%	19%	2%
North East	46%	16%	23%	2%
London	44%	20%	21%	3%

The rows in this table do not add up to 100%, as approximately 10% of young people at university do not fit into one of these two qualification groups

Non-disadvantaged young people without good GCSEs make up the biggest share of apprenticeship starters, with disadvantaged young people with top GCSEs almost non-existent among apprenticeship starters. In some respects, this is unsurprising. Disadvantaged young people are in the minority – among those with top GCSEs especially so. But what is surprising is when you compare these figures to their prevalence within the population to see which groups are particularly under- and overrepresented among apprentices (Table 11).

Table 11: Disadvantaged young people without good GCSEs are more underrepresented among apprenticeship starters than their better-off peers, but among those with top GCSEs this isn't always true

	Over/underrepresentation of different groups among apprenticeship starters			
	Without good GCSEs		Top GCSEs	
	Non-disadvantaged		Non-disadvantaged	
Region		Disadvantaged		Disadvantaged
East Midlands	1.83	1.65	0.48	0.38
Yorkshire and the Humber	1.74	1.70	0.43	0.38
South East	1.72	1.41	0.51	0.61
West Midlands	1.72	1.58	0.46	0.57
North West	1.68	1.50	0.52	0.56
North East	1.63	1.43	0.53	0.42
East of England	1.58	1.43	0.53	0.64
London	1.54	1.36	0.50	0.43
South West	1.48	1.29	0.57	0.56

This final table shows several important things.

Firstly, young people without good GCSEs are overrepresented among apprentices, while those with top GCSEs are underrepresented.

Secondly, disadvantaged young people without good GCSEs are less overrepresented among apprentices in every region. Differences among those with top GCSEs vary and do not present a coherent picture – they may well not be statistically significant, given the low numbers of young people with top GCSEs taking up apprenticeships.

Finally, rankings within these two different qualification groups differ completely. Table 11 is sorted based on non-disadvantaged young people without good GCSEs. If sorted by top GCSEs, the South West moves from the bottom to the top, and Yorkshire and the Humber goes from second to the bottom.

2: Apprenticeship levels

As well as a focus on how many, and which, young people start apprenticeships, another much-discussed topic concerns the level of those apprenticeships. Whether it is concerns about the quality of courses at Level 2, or apprenticeships as a pathway leading to intermediate and higher skills, policymakers are focussed on this issue.

As before, the LEO data picks up anyone starting an apprenticeship by 2016/17 in any of the six cohorts. All apprenticeships are either at Level 2, Level 3, or (in a tiny minority of cases) Level 4 or above. Where someone starts more then one apprenticeship, we look only at the highest level.

In order to analyse the data meaningfully, we restrict ourselves to looking only at the two substantial groups of apprentices: those with top GCSEs and those without good GCSEs. As we saw in the preceding chapter, this covers about 85% of all apprentices.

The national picture

Overall, across the six cohorts, 57% of apprentices only ever do apprenticeships at Level 2. 41% have Level 3 as their highest apprenticeship level, and just 2% do an apprenticeship at Level 4 or above. The period in question ends before we can see an impact from the more recent focus on higher and degree apprenticeships so this data reflects how they have been a small part of the landscape historically. That 2% reflects just 3,500 young people starting these apprenticeships over many years, out of 3.5 million young people in the study.

Of course, this varies based on disadvantage. While 68% of disadvantaged young people never get beyond a Level 2 apprenticeship, the same is true of 55% of their better-off peers. Disadvantaged young people are less likely to start a Level 3 apprenticeship (31% vs 43%) or an apprenticeship at Level 4 or above (1% vs 25%).

As well as looking at disadvantage, we can also consider which qualifications are correlated with which levels of apprenticeships. While 64% of apprentices without good GCSEs never progress beyond a Level 2, only 33% of those with top GCSEs experience the same. 35% of those without good GCSEs start a Level 3 apprenticeship, compared to 63% of apprentices with top GCSEs. And at Level 4 and above, the figures stand at 5% for young people with top GCSEs, compared to 1% of young people without good GCSEs.

There are two main takeaways from these figures. First, why are almost 16,000 young people with top GSCEs, i.e. full Level 2 qualification at age 16, subsequently undertaking a Level 2 apprenticeship? There may be cases where this reflects a young person's wish to make a specific and deliberate transition, but this should not be without scrutiny, especially if it isn't the first step towards intermediate and higher level skills.

Second, if apprenticeships are a valued alternative route to intermediate and higher skills for young people, why are two thirds of young people without good GCSEs who take this route never progressing beyond Level 2? This data is historic and the system is changing, but policymakers must be alert to the drawbacks of the past when considering the reform of the future.

When we compared disadvantaged young people to their similarly qualified but better-off peers, we see sizeable gaps emerging. In the previous chapter, we did not see such gaps. This is important: coming from a disadvantaged background doesn't seem to impact the likelihood of undertaking an apprenticeship once you factor in qualification, but it does impact the level of the apprenticeship undertaken.

Among young people without good GCSEs, 70% of disadvantaged young people end up with a Level 2 apprenticeship, with just 29% doing a Level 3 apprenticeship. Among their better-off peers, 63% have a Level 2 apprenticeship, with 36% starting a Level 3 apprenticeships.

Among young people with top GCSEs, the gaps are similar. 39% of disadvantaged young people end up with a Level 2 apprenticeship, with 58% doing a Level 3 apprenticeship. Among their better off peers, only 32% have a Level 2 apprenticeship, with 68% starting a Level 3 apprenticeship. There is also a gap in access to apprenticeships at Level 4 and above, 3% vs 5%.

Variation by region

Disadvantaged young people starting apprenticeships are so few in number (especially in London) that they can't be meaningfully analysed when broken down both by qualifications and level of apprenticeship. There are other methodological approaches to looking at these questions that could be used to explore variation at a regional level.

References

1. Department for Education, *Key stage 4 and multi-academy trust performance 2018 (revised)*, March 2019
2. Impetus, *Youth Jobs Gap: Establishing the Employment Gap*, April 2019
3. Department for Education, *Destinations of key stage 4 and key stage 5 pupils: 2010*, July 2012
4. Impetus, *Youth Jobs Gap: Establishing the Employment Gap*, April 2019
5. Impetus, *Youth Jobs Gap: Higher Education*, May 2019

Methodology reference notes

The following is a summary of the terminology used in this briefing for reference. We have published in parallel a full methodology document, *Methodology for the Youth Jobs Gap*.

Cohort – a group of students who all sat their GCSEs in the same year, from 2007 to 2012 (six cohorts), included in our analysis.

Disadvantage – eligible for free school meals (FSM) in year 11.

Local authority and region – where young people went to school. This briefing only covers young people who were in mainstream English schools in year 11, and about whom disadvantage status is known.

Qualification – Young people are split into five categories based on highest qualifications at age 16. The categories are:

1. No qualifications
2. Some qualifications, not enough to fit into categories three to five (usually referred to in this report as "without good GCSE")
3. A*-C in English and maths GCSEs, but NOT five A*-Cs in total
4. Five A*-C GCSEs, but missing at least one of English and maths
5. Five A*-C GCSEs, including English and maths (usually referred to in this report as "top GCSEs")

In each case, the qualifications are GCSEs or equivalents. The second and fifth categories are by far the largest groups of young people.

Access to apprenticeships – based on whether there is any recorded apprenticeship start between academic years 2009/10 and 2016/17 inclusive.

Level of apprenticeship – The highest level of apprenticeship someone has started. It may be that this was the only level of apprenticeship they have ever started, or that they started at a lower level apprenticeship and progressed to this level

Impetus

@ImpetusPEF
#YouthJobsGap

Impetus

All young people can succeed at school and work with the right support

Impetus
Floor 4
Evergreen House North
Grafton Place
London NW1 2DX

Impetus.org.uk
@ImpetusPEF
info@impetus.org.uk
0203 474 1000