YOUTH JOBS GAP

Impetus

Research Briefing 9:

The impact of English and maths

April 2020

CENTRE FOR VOCATIONAL EDUCATION RESEARCH

National Institute of Economic and Social Research

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.

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The statistics shown in this report are based on a research collaboration between NIESR and Impetus as part of the CVER programme over a period of twelve months, which ended in August 2019. The aim of the project was to create better measures on labour market outcomes of young people at regional and local level and to discuss the work across the interested research and practitioner communities.

Impetus, NIESR and CVER continue to disseminate outputs from this research to elicit comments and further debate, but the views in all publications are subjective and solely those of the author(s). This applies specifically in dissemination where partial representation of the effectiveness of particular employment programme interventions and/or selective case studies is contextualised to the statistics obtained from the joint research project. Such views do not represent the position of CVER or NIESR or organisations involved in creating the statistics.

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Foreword

Susannah Hardyman
Founder and CEO, Action Tutoring

I was extremely lucky growing up that I had all the support I needed at both school and home to achieve good grades and to progress to a top university.

But for hundreds of thousands of young people across the country, this is not the case. Tens of thousands of teenagers every year just miss out on crucial GCSEs in English or maths that they need to go to college and study the course they want. Grades are certainly not the only thing that matters in life, but I do believe that achieving a basic standard in English and maths is really critical for young people to progress well to further education, employment or training.

I founded Action Tutoring because the support young people need to succeed should be available to those who need it most – regardless of what their parents earn or their background. Our incredibly network of over 1,000 volunteer English and maths tutors a year give up their time to support those that need extra help at a crucial point in their education. Evidence shows our programme works: at secondary school, after just two terms of tutoring, our pupils are able to match the national pass rate for all pupils in English and maths, regardless of their background.

I'm delighted Impetus are highlighting the importance of English and maths qualifications in this report; not for the grades in and of themselves, but for the difference they make to a young person's future opportunities. It is possible for young people to succeed at GCSE with the right support. And every young person deserves the opportunity to reach their potential, regardless of background.

Foreword

Sarah Waite
Founder and CEO, Get Further

Every year, at least 200,000 children don't reach the expected standard in GCSE English and maths at school.

This research in this report tells the story of what happens next for these young people – and the dramatic effect this one fact has on the opportunities that are available to them.

Gaining these qualifications matters – and not only because they are the gateway to many university courses, apprenticeships and better-paid jobs. Students who are able to confidently draw on fundamental literacy and numeracy skills are more likely to stay on in further study and thrive in the workplace later on in life.

Moreover, the scale of this problem poses a significant social mobility challenge for this country, with young people from disadvantaged backgrounds most likely to be held back. When children from middle-class or wealthier families fall behind at school, parents often step in to pay for a tutor to help their child catch up. For families on low-incomes, the sky-high cost of private tuition means this simply isn't an option.

That's why we have set up Get Further – a new not-for-profit that matches students retaking these subjects in further education colleges to a top tutor – at no cost to the student. Our tutors are trained, subject-specialist graduates, who use their knowledge and skills to address key gaps and rebuild the confidence of students facing challenges in further education – and for whom this type of support would otherwise be out of reach.

As young people look to their options at the end of school, far too many are finding that routes through education and work are now off-limits. As this report shows, without a renewed focus on second-chance education and support for building key skills and gaining crucial qualifications post-16, these young people will continue to be left behind.

Executive Summary

What is the impact of passing your English and maths GCSEs on your long-term prospects?

This is a crucial question. If you leave school at 16 with five GCSE passes, this counts as being qualified to level 2 – the expected standard needed to move on to A level or equivalent. This definition of level 2 doesn't require English and maths qualifications.

We find that English and maths GCSEs make a noticeable difference to outcomes. By comparing a group of young people who passed these crucial subjects with a similar one that did not, we find that having GCSEs in English and maths is correlated to:

- lower NEET rates;
- higher access to university;
- higher access to the most selective universities;
- higher pass rates among those who start a degree.

Our evidence suggests that GCSE English and maths is a more useful outcome measure at 16 than five GCSE passes. This is a reminder for policymakers that these subjects should be treated as a priority. This is particularly important for young people from disadvantaged backgrounds, who are less likely to secure these essential qualifications.

We need to ensure that young people are getting the support they need to pass their English and maths GCSEs at 16 and, when they miss out, to attain these qualifications by 19. Our research indicates this will give them the best chance to succeed.

As part of the Youth Jobs Gap series, we will release a policy report in the Spring, building on our election manifesto. It will also build on the evidence of our charity partners Action Tutoring and Dixons Academies Trust, who show what is possible in the results of their work.

To unleash Britain's potential in the 2020s, we must ensure every young person gets the support they need to succeed in English and maths at GCSE, to help them go onto successful outcomes in education and the labour market

Introduction

This report looks at the importance of GCSE English and maths on NEET rates, and access to higher education and apprenticeships. Like other reports in the Youth Jobs Gap series, it uses previously unseen Longitudinal Education Outcomes data to present new insights into disadvantaged young people's transition from compulsory education into employment.

English and maths are the core subjects are at the centre of a school timetable, driven by accountability measures. But these measures have varied in subtle but important ways in the last two decades. For a long time, schools were held to account for the proportion of young people achieving passes in five GCSEs, i.e. level 2 qualifications. This was then changed to five GCSEs including English and maths. More recently, English and maths have been measured separately. These distinctions are important, because the system is designed to drive school's priorities. It is important these priorities match what is of value to young people.

And value for young people is often talked about, but not often measured. There is an attempt to capture this in the definition of being qualified to level 2, the standard expected of 16-year olds. But it makes no reference to these subjects – five GCSEs across any subjects is enough to count as being qualified to level 2. In this sense, being qualified to level 2 is perhaps not enough to progress to level 3 courses such as A-levels or T-levels, which may well require English and maths.

This question of the value of qualifications is at the heart of recent controversy over three-year GCSEs – with a trade-off between giving young people a long run-up to qualifications or keeping a broader curriculum for longer. And in colleges, where post-16 students without GCSEs are required to resit, it is often argued that young people would be better off focussing on alternative qualifications, such as functional skills, or even not being required to continue studying English and maths at all.

All these issues around English and maths GCSEs particularly affect young people from disadvantaged backgrounds. Just 40% of young people eligible for free school meals achieved these crucial passes, compared to 68% of their better-off peers.[1] It is disproportionately young people from disadvantaged backgrounds who are affected by the question of how we approach post-16 English and maths. Even when these qualifications have a fixed pass rate overall due to norm referencing,[i] this attainment gap is not inevitable.

[i] A feature which may not be as important in future as evidence from the National Reference Test builds up

And clearly, things are not working as well as they should. In 2017, Impetus' *Life After School* research looked at the percentage of young people who successfully catch up by age 19 if they don't get these passes the first time around.[2] We found that young people from disadvantaged backgrounds are less likely to do so. Just 17% of young people from disadvantaged backgrounds catch up in English, compared to 25% of their better off peers. In maths, the equivalent figures are 8% and 13%. These numbers are not good enough.

Policymakers face a choice – between the more resource intensive task of improving education in these key subjects, so that more young people get the passes they need; or accepting that a large percentage of young people won't get these grades and need alternative qualifications instead.

In this report, we aim to provide evidence to help policymakers make this choice.

We do this by comparing outcomes for two groups of young people:

- The English and maths group: young people who have achieved at least a C at GCSE in both English and maths by age 16 – but who do not have five or more GCSEs at these grades. As noted above, this is what schools are currently held to account for.
- The five passes group: young people who have achieved at least five C grades at GCSE by age 16 – but who do not have either English or maths (or both). As noted above, this would count as level 2 qualified but may not be enough for a transition to level 3 qualifications.

These two groups are a minority of students – just 5% each. This briefing doesn't look at outcomes for young people with five A*-C at GCSE, including English and maths; nor at those without five passes, and missing at least one of English and maths. [ii]

And of course, these groups are not independent of one another – doing better at English and maths makes it more likely you'll succeed in other subjects, and vice versa. The two groups that are the subject of this report most likely have very similar levels of qualifications, in both cases having achieved half of the aim of five A*-C including English and maths that is set for young people. As outlined above, the English and maths group are meeting the current standard expected of 16-year olds, the five passes group are meeting what used to be the expected standard and what counts as qualified to level 2.

The outcomes compared for each group are:

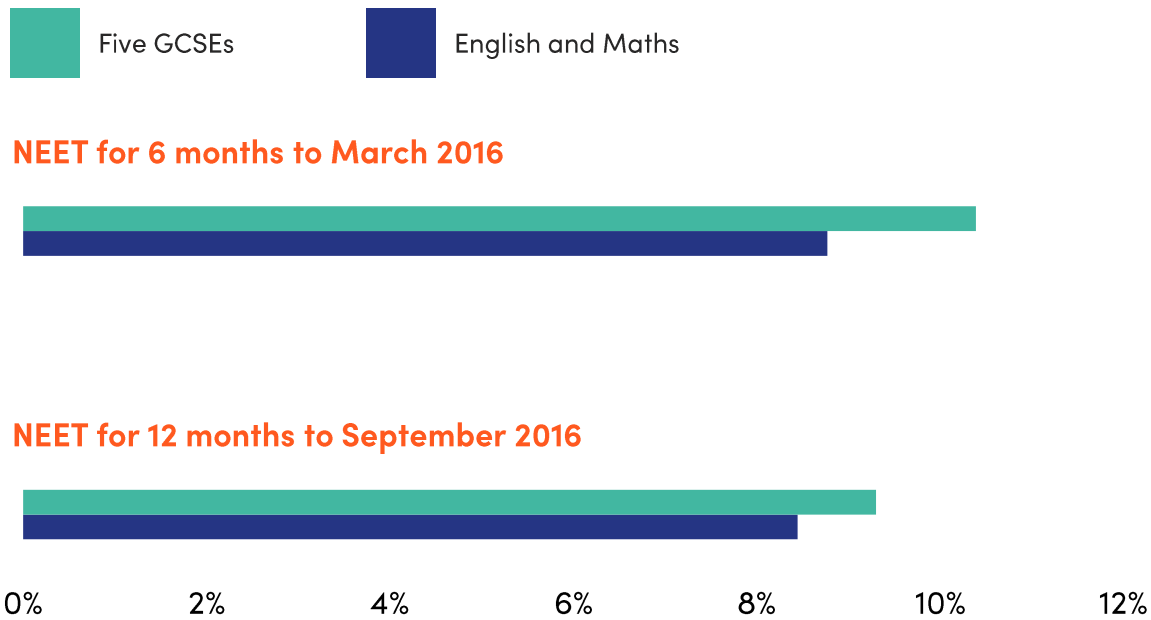
- NEET rates;
- access to higher education;
- access to selective universities;
- getting a degree;
- access to apprenticeships.

[ii] These groups are looked at in other *Youth Jobs Gap* reports. Outcomes for young people with five A*-C including English and maths are always better than for both groups considered here. Similarly, outcomes for young people without five passes and missing at least one of English and maths are always worse.

As with previous briefings in the *Youth Jobs Gap* series, this briefing takes advantage of the new Longitudinal Education Outcomes (LEO) data. LEO is the most complete data available and offers better insights than we've had from any previous datasets. From it, we can see how things differ for young people based on whether they are from a disadvantaged background, what qualifications they have and where they went to school. The approach taken 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 caveats associated with the new LEO dataset. As with government reports based on LEO, these are experimental statistics and feedback on methodology is welcome. Contributions, engagement and comments are encouraged, via policy@impetus.org.uk.

I: NEET rates

Chart 1: Young people with GCSEs in English and maths are less likely to be NEET than those with five GCSEs



When we compare the NEET rate for the English and maths group to the five GCSE group, we see the former are less likely to be NEET – about 16% less likely to be NEET for 6 months, and 9% less likely to be NEET for 12 months.

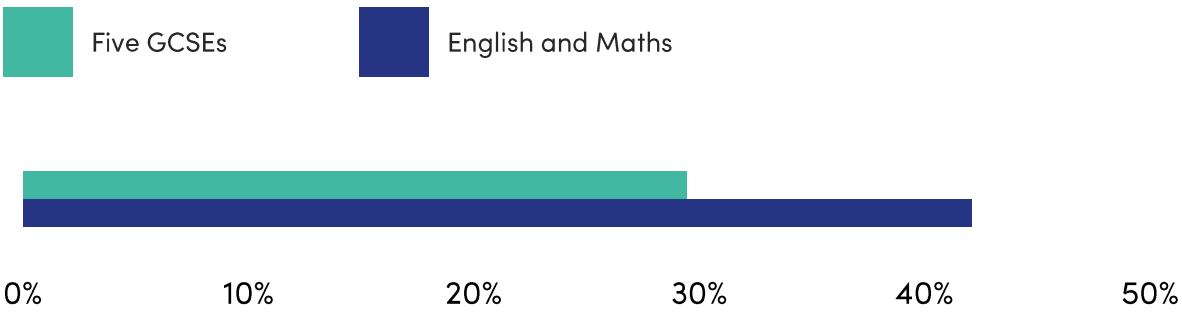
So English and maths GCSEs seem to offer more protection against being NEET than five GCSE passes. This finding holds across each of the six cohorts in our study, who are aged 19-24 in 2016. And it holds for both young people from disadvantaged backgrounds and their better-off peers.

However, the gaps are slightly larger at younger ages, for example the early 20s. This suggests that the effect of not having English and maths GCSEs decreases slightly with age. This will partly reflect the fact that some people catch up and may also reflect the fact that these qualifications are particularly important for successful initial transitions from school to adult life.

On a simple NEET measure, one thing we can't tell is whether this decrease in the gap in NEET rates is partly countered by a growing wage and progression gap, as those with GCSEs in English and maths find it easier to progress their careers.

2: Access to higher education

Chart 2: Young people with GCSEs in English and maths are more likely to start a higher education course than those with five GCSEs



Proportion accessing higher education by March 2017

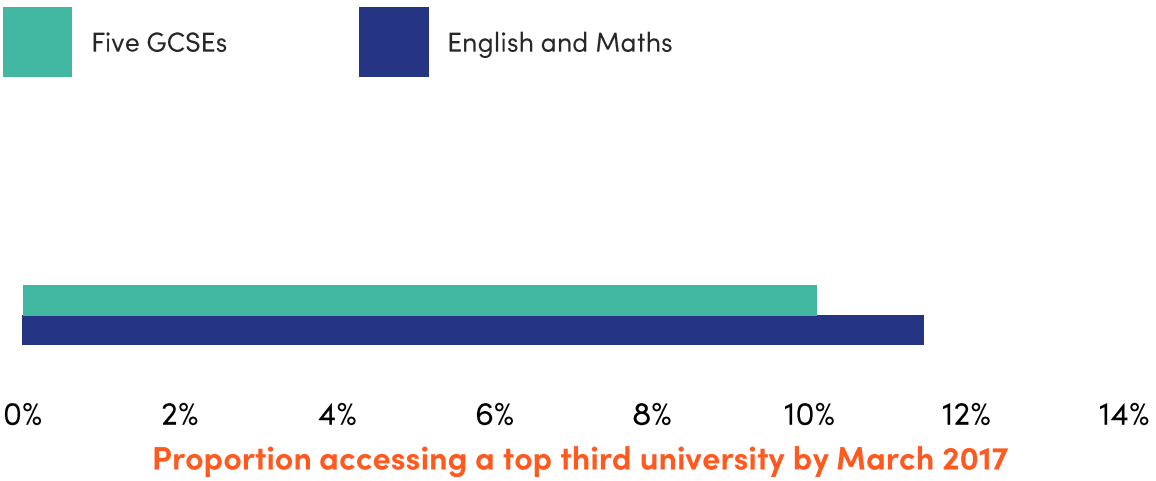
When we compare the English and maths group to the five GCSE group, we see the former are more likely to have started a higher education course by summer 2017 – about 43% more likely, a sizable difference.

When we looked at access to higher education in our second *Youth Jobs Gap* briefing we noted that different cohorts behave very differently – more recent cohorts have had less time to access higher education but also the participation rate for each cohort based on age 19 has been increasing.[3] Each of the 6 cohorts sees the pattern above, with the English and maths group at least 28% more likely to access higher education than the five GCSE group. But for most cohorts, the figure is between 28% and 38%.

The exceptions are more recent cohorts. Young people who sat their GCSEs in 2011 are 44% more likely to have started a higher education course if they are in the English and maths group than the five GCSE group. For the 2012 cohort, the figure is 55%. This suggests that English and maths is particularly important for entry into higher education at a younger age.

3: Access to top third universities

Chart 3: Young people with GCSEs in English and maths are more likely to start a higher education course at a top third university than those with five GCSEs



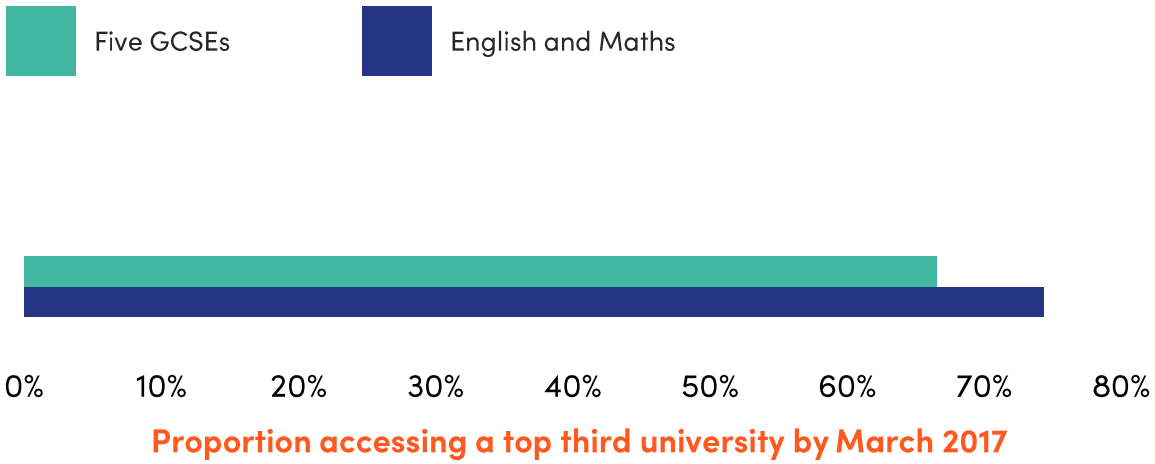
When we compare the English and maths group to the five GCSE group, we see the former are more likely to have started a higher education course – about 14% more likely.

When we looked at access to top third universities in our second briefing we noted that different cohorts behave very differently – more recent cohorts have had less time to access higher education, but also the participation rate for each cohort based on age 19 has been increasing.[4]

But there is no consistent pattern over time. Young people who sat their GCSEs in 2007 are 22% more likely to have started a higher education course at a top third institution if they are in the English and maths group than the five GCSE group. For the 2008 and 2009 cohorts, the figure is only 2-3%. For the 2010 and 2011 cohorts, it's 13-15%. For the 2012 cohort, it's 42%. Treating the 2007 cohort as an outlier, this suggests that English and maths is particularly important for entry into top third higher education at a younger age.

4: Getting a degree

Chart 4: Young people with GCSEs in English and maths are more likely to pass a degree than those with five GCSEs



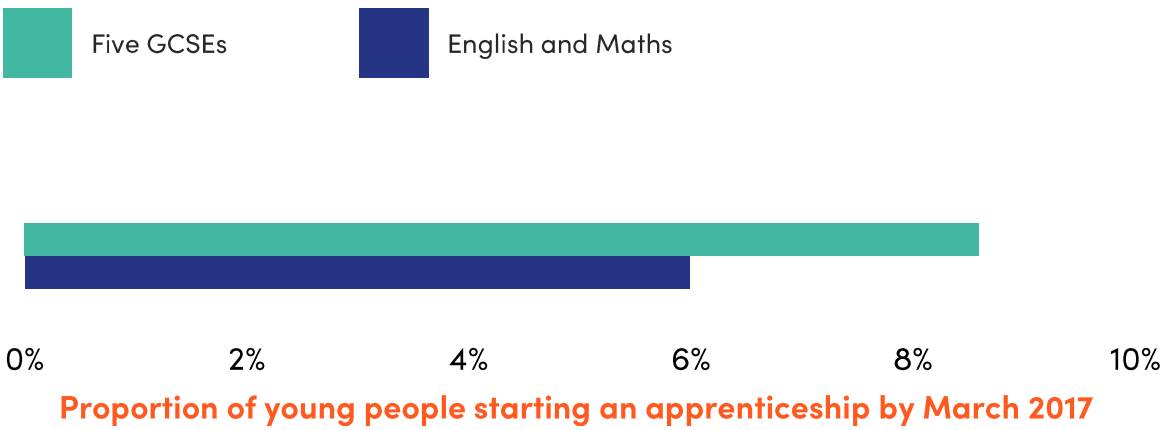
When we compare the English and maths group to the five GCSE group, we see the former are more likely to have passed their degree by 2017 – about 12% more likely. This is based on looking at only young people who had enrolled in higher education and so is not driven by the differences in access identified earlier in this report.

When we looked at degree pass rates in our second briefing[5] we noted that more recent cohorts have had less time to pass their degree, so we have limited ourselves to the 2007 to 2010 cohorts. These cohorts behave very similarly, with the English and maths group 10–13% more likely to pass a degree than the five GCSE group.

Therefore, not only are you less likely to go on to higher education without English and maths, those that do are less likely to stay on and achieve their degree.

5: Access to apprenticeships

Chart 5: Young people with GCSEs in English and maths are less likely to start an apprenticeship than those with five GCSEs



When we compare the English and maths group to the five GCSE group, we see the former are *less* likely to have started an apprenticeship – about 30% less likely.

This finding stands in contrast to earlier findings in this report, where the English and maths group were more likely to have positive outcomes than the five GCSEs group. But in our third briefing, we found that better qualified young people were less likely to start an apprenticeship. And in that sense, our finding here is consistent – the English and maths group are less likely to access apprenticeships because they are better qualified than the five GCSEs group.

When we looked at access to apprenticeships in our third briefing we noted that, as these findings only run up until March 2017, they predate much apprenticeship reform, including the levy and the move from frameworks to standards.[6] These findings should be interpreted as a retrospective look back on the old system. However, it is striking that apprenticeships prior to 2017 were a more important route for those young people who didn't achieve English and maths at GCSE.

Conclusion

Our data shows the importance of passing English and maths GCSEs. This has three important implications for policymakers and educators.

Firstly, it's a reminder about how important it is for all young people to get these qualifications at school. Young people in the five passes group are already qualified to level 2 at 16, whereas the English and maths group are not. But nonetheless, they have worse long-term outcomes. This suggests that English and maths GCSEs are crucial. When we consider questions like curriculum and accountability, we should bear this in mind.

Secondly, this is an important part of the social mobility agenda. Young people from disadvantaged backgrounds are much less likely to get these crucial qualifications. Efforts to close the attainment gap, and pupil premium spending, should be directed at English and maths GCSEs if we want to have a long-term impact on young people's life chances.

Thirdly, it suggests we should not back down in our focus on second chances. We know that if you don't get GCSEs in these subjects at age 16, your chances of catching up are slim. Young people are offered qualifications badged as "equivalent", but the evidence that these are just as good as GCSEs is limited. Instead, we have this new evidence of the importance of GCSEs. Second chances shouldn't mean second best.

The Prime Minister talks about "unleashing Britain's potential". Ensuring every young person gets the essential qualifications they need to succeed is surely part of that. Some practical ideas for delivering this are contained in the Impetus election manifesto, and we will be publishing some further policy ideas based on our Youth Jobs Gap research this Spring.[7]

It is often taken as an article of faith that qualifications matter. But the new LEO data enables us to test the proposition. It is no shibboleth. GCSE English and maths makes a real difference to the life chances of young people.

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. This briefing only covers young people who were in mainstream English schools in Year 11 and about whom disadvantage status is known.

Qualification – qualification categories are based on highest qualifications at age 16. The categories are:

- No qualifications (3% of the young people in the Youth Jobs Gap study)
- Some qualifications, not enough to fit into categories three to five (39% of the young people in the Youth Jobs Gap study)
- A*-C in English and maths GCSEs, but NOT five A*-Cs in total (usually referred to in this report as "the English and maths group") (5% of the young people in the Youth Jobs Gap study)
- Five A*-C GCSEs, including English and maths (48% of the young people in the Youth Jobs Gap study)

In each case, the qualifications are GCSEs or equivalents.

While detailed figures for groups 1, 2 and 5 listed above are not included in this report, they are as you would expect, with group 5 having better outcomes than groups 3 and 4, group 2 having worse outcomes and group 1 having the worst outcomes of all.

EET – young people recorded as being in education, employment or training (EET) at a point in time. Due to limitations with LEO at the time of developing this project, self-employment is not included as a form of EET.

NEET – not EET for at least six consecutive months up to March 2016 or 12 consecutive months up to September 2016 (i.e. including the six months to March).

Access to Higher Education – based on whether there is any recorded enrolment in Higher Education between academic years 2009/10 and 2016/17 inclusive.

Access to top third universities – based on the top third universities as defined by the DfE in a similar measure.

Pass rates – for those who enrolled in higher education, based on whether they are recorded as having completed the qualification by academic year 2016/17.

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

Age – approximate age, based on the year young people left school and the point in time NEET or EET is being measured at. This is based on academic age and therefore academic years (see below). Every young person in the same cohort is the same age; age acts as an intuitive measure of 'how long since the cohort left school.'

Cohort	Year EET / NEET observed							
	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17
2007	18	19	20	21	22	23	24	
2008		18	19	20	21	22	23	24
2009			18	19	20	21	22	23
2010				18	19	20	21	22
2011					18	19	20	21
2012						18	19	20

1 Department for Education, *GCSE and equivalent results in England 2017/18 (Revised)*, January 2019

2 Impetus, *Life after school: Confronting the crisis*, March 2017

3 Impetus, *Youth Jobs Gap: Higher Education*, May 2019

4 Ibid.

5 Ibid.

6 Impetus, *Youth Jobs Gap: Apprenticeships*, June 2019

7 Impetus, *A fair chance*, November 2019

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