Educational outcomes in Gloucestershire

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EDUCATION POLICY INSTITUTE

EPI local authority analysis and evaluations

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The Education Policy Institute is an independent, impartial and evidence-based research institute that promotes high quality education outcomes, regardless of social background. We achieve this through data-led analysis, innovative research and high-profile events.

Education can have a transformative effect on the life chances of young people, enabling them to fulfil their potential, have successful careers, and grasp opportunities. As well as having a positive impact on the individual, good quality education and child wellbeing also promotes economic productivity and a cohesive society.

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Our experienced and dedicated team works closely with academics, think tanks, and other research foundations and charities to shape the policy agenda.

About the Gloucestershire Education Forum

The Gloucestershire Education Forum was established in April 2022 to build a positive and productive partnership between all stakeholders in the county's education system.

The Forum serves as an impartial ambassador for every child - circa 7,000 per age cohort - educated in Gloucestershire, rooted in shared values and ambitions.

The Forum's key aims are to:

- Improve well-being and academic outcomes for all children and young people;
- Co-design a partnership-led system;
- Promote system generosity;
- Provide opportunities for professional development.

This report from EPI was commissioned to identify 'the learning gaps' which exist, and to highlight which groups of children and young people the Forum might focus its particular attention upon in the coming years.

Roy Blatchford CBE, Chair, Gloucestershire Education Forum

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Foreword

Narrowing disadvantage gaps is one of the biggest challenges our education system faces. Disadvantaged children typically start their education journey well behind other children, and sadly this gap seems to grow wider through each stage of education.

Until recently, our nation was making notable strides in reducing the scale of disadvantaged gaps, not least in the early years and primary phases. But progress appeared to stall in around 2017, and all the evidence suggests that the gap increased significantly during the period of the Covid pandemic, when many schools were closed and when attendance fell.

It is now a priority to establish what the main challenges are, following the pandemic. We need to identify those children who have fallen behind, and understand how this varies by subject, age, school type and geography.

We also know that the disadvantaged gap varied significantly across the country pre-pandemic, both because of the differences in the depth and persistence of poverty within the 'disadvantaged' group, and for other reasons.

This is why we at EPI are continuing to publish our annual assessments of the disadvantaged gap, and why we are pleased to be working with authorities such as Gloucestershire, to inform the debates and action plans that are being put in place across the country.

As ever, we welcome comment and questions on our analysis and recommendations.

David Laws, Executive Chairman, Education Policy Institute

Introduction

The Education Policy Institute (EPI) has been commissioned by the Gloucestershire Education Forum to report on the state of educational inequalities across multiple phases of education in Gloucestershire and how this has changed over the past decade. Through our analysis of the characteristics, attainment and disadvantage gaps of learners in Gloucestershire, this research aims to support policy makers and practitioners to understand where progress is being made and where there is more work to do and reach appropriate, evidence-based responses.

National assessments have been severely disrupted in the past three years as a result of the COVID-19 pandemic. In early years (Reception year) and key stage 2 (end of primary school), the usual assessments were cancelled altogether in 2019/20 and 2020/21, whilst exams for GCSEs, A levels and other post-16 qualifications were initially replaced with centre assessments (2019/20) and then with teacher assessments in the following year (2020/21).

In recognition of these various changes to assessments, this report summarises the state of the disadvantage attainment gap in different ways during the pre- and post-pandemic periods, depending on the key stage. For early years and key stage 2, we have only been able to estimate disadvantage gaps prior to the onset of the pandemic (i.e. up to 2018/19), though we also provide commentary on recently released Department for Education statistics for the now-resumed key stage 2 assessments in 2021/22.

For key stage 4 (at the end of secondary school) and 16-19 education, we are able to provide estimates of the disadvantage gap for 2019/20 (under teacher-assessed grades) and 2020/21 (under centre-assessed grades), as well as earlier pre-pandemic years. We again supplement these with a commentary on more recent DfE data for 2021/22. Further analysis is also provided for post-16 outcomes using publicly available local authority-level data.

In addition, we provide analysis of attainment and disadvantage gaps within Gloucestershire (by parliamentary constituency) from early years to key stage 4, as well as comparisons beyond Gloucestershire by selecting local authorities with similar demographics from across England. These more granular comparisons are based on the latest data available for each key stage and provide more context on Gloucestershire's relative performance in enabling its disadvantaged pupils to achieve, highlighting aspects of stronger and weaker performance.

Executive Summary

Early Years

- **Reception pupils in Gloucestershire are less likely to be disadvantaged than across England as a whole.** The share of pupils aged 5 (in Reception year) in Gloucestershire who were eligible for free school meals was 9.7 per cent in 2019, compared with 14.3 per cent nationally. Since the start of our series in 2013, there has been a trend of falling levels of disadvantage in Gloucestershire and nationally prior to the pandemic, though data from the DfE shows this proportion increased in 2022 to 11.2 per cent compared with the national average of 18.8 per cent.
- **Overall attainment at age 5 is higher in Gloucestershire than the national average.** In 2019, Reception pupils in Gloucestershire had an average total point score on the early years foundation stage profile of 35.5 points, compared with 34.6 points nationally (on a scale from 17 to 51). The highest scoring local authority was Richmond-upon-Thames (39.3) and the lowest was Middlesborough (32.3), with Gloucestershire in the top quartile of all local authorities.
- **The early years disadvantage gap in Gloucestershire has fluctuated above and below the national average in recent years but was slightly below the national average in 2019**. The average gap in attainment between disadvantaged pupils and their non-disadvantaged peers fell to 4.2 months in Gloucestershire in 2019 – its lowest level since 2013 and just below the national gap of 4.6 months. Gloucestershire has a larger early years disadvantage gap than 37 per cent of local authorities in England.

Key stage 2

- **Gloucestershire's primary school pupils are also less likely to be disadvantaged than the national average**. In 2019, 23.1 per cent of pupils finishing key stage 2 (KS2) in Gloucestershire were eligible for free school meals at any point in the previous six years, compared with 29.3 per cent nationally. Whilst the national share of disadvantaged pupils has gradually been falling in recent years, in Gloucestershire it has remained largely static since 2015. DfE data from 2022 shows that Gloucestershire continues to have a lower proportion of FSM-eligible pupils at the end of primary school than the national average.
- At KS2 and KS4 we also consider pupils who are *persistently* disadvantaged based on being eligible for free school meals for at least 80 per cent of their time in school. In Gloucestershire, 7.8 per cent of pupils are persistently disadvantaged by the time they finish primary school, compared with 10.9 per cent nationally.
- **Gloucestershire has similar average KS2 attainment to the national average, although four of its six parliamentary constituencies have below-average attainment**, with the Gloucestershire-wide average being brought up by Stroud and The Cotswolds. The average scaled score in reading and maths in Gloucestershire in 2019 was 103.5 points, compared to the national average of 103.2. To put these figures in context, the highest scoring local authority was Richmond-upon-Thames with an average score of 107.9 and the lowest was Hackney with an average score of 100.8.
- **The disadvantage gap at the end of primary school in Gloucestershire has been slightly wider than in England** in recent years, having previously been close to the national average

up to 2014. Disadvantaged pupils were 10.9 months behind at the end of KS2 in 2019, compared with 9.3 months nationally. Gloucestershire has a larger disadvantage gap at KS2 than 72 per cent of local authorities in England. Without attainment data in 2020 and 2021, it is difficult to draw conclusions on the trends in the disadvantage gap since the onset of the pandemic, though initial signs are that the gap in Gloucestershire has remained static between 2019 and 2022, while the national disadvantage gap has increased by 0.5 points.

- As with the headline KS2 disadvantage gap, **the persistent disadvantage gap at the end of primary school is also larger in Gloucestershire than the national average**. In 2014, the gap in Gloucestershire was close to the national average but between 2014 and 2018 the Gloucestershire gap started to pull away, reaching its peak in 2018 at 15.3 months. In 2019, the Gloucestershire gap narrowed (to 14.6 months) but remained above the national average (of 12.1 months).

Key stage 4

- As at early years and key stage 2, **a smaller proportion of pupils are disadvantaged at the end of secondary school in Gloucestershire than in England** (16.5 per cent in 2021, compared with 24.5 per cent nationally). Trends over time in Gloucestershire have closely matched the national picture, albeit at much lower levels of disadvantage. DfE data from 2022 shows that Gloucestershire continues to have a lower proportion of FSM-eligible pupils finishing secondary school than the national average.
- **KS4 pupils in Gloucestershire are also much less likely to be growing up in long-term poverty than the national average**. In Gloucestershire, 6.2 per cent of pupils finishing their GCSEs in 2021 had been eligible for free school meals for at least 80 per cent of their school life, the highest proportion in the last decade, though still well below the national figure of 10.2 per cent.
- **Overall GCSE attainment is higher in Gloucestershire than in England.** In 2021 the average GCSE grade in English and maths in Gloucestershire was 5.20 compared to 4.95 nationally, putting Gloucestershire in the top quartile of all local authorities. The best performance in 2021 for any local authority was Richmond-upon-Thames (with an average grade of 5.96), and the lowest was Blackpool (4.30).
- **The GCSE disadvantage gap in Gloucestershire has been consistently higher than the national average over the last decade**. Although disadvantaged pupils' grades in Gloucestershire initially made up some ground during the pandemic (with the measured gap falling in 2020 and 2021 towards the national gap), the Gloucestershire gap then widened again in 2022 and reversed most of the apparent progress that disadvantaged pupils had made during the two previous years. Gloucestershire has a larger disadvantage gap at KS4 than 42 per cent of local authorities in England.

16-19 education

- Despite having higher-than-average GCSE attainment, **Gloucestershire pupils are less likely to participate in education and training at ages 16 and 17 than nationally** (85 per cent compared to 87 per cent). And whilst this share has been rising in Gloucestershire between 2020 and 2022 – mirroring the national picture – **there has also been a small but steady increase in the proportion not in Education, Employment, or Training (NEET) in Gloucestershire,** in contrast to England where this proportion has fallen slightly.

- After completing 16-to-18 study, **a similar proportion of Gloucestershire students go onto higher education as nationally** (37 per cent compared to 36 per cent), **fewer progress to further education** (8 per cent compared to 13 per cent) **and a higher share are in employment** (28 per cent compared to 21 per cent). Overall, a lower share are in an unsustained destination after leaving 16 to 18 study, though this proportion has been rising in recent years in Gloucestershire.
- There is little difference in the rates of progression to higher education among non-disadvantaged young people in Gloucestershire compared with non-disadvantaged young people nationally. However, **disadvantaged young people in Gloucestershire are notably less likely to progress to higher education (or further education) than disadvantaged young people nationally, and are instead much more likely to enter employment immediately after 16 to 18 study**.
- **A slightly higher proportion of 19-year-olds in Gloucestershire achieve Level 2 and Level 3 qualifications** than in England nationally. Focusing specifically on Level 3 qualifications, **young people in Gloucestershire taking A levels typically achieve similar grades to their national counterparts, whilst those taking applied general qualifications and notably tech levels have begun to outperform the national average since 2020.**
- **Gloucestershire has a larger 16-19 disadvantage gap than the national average** across students' best three qualifications, reaching its highest level in 2021 at 4.5 grades compared to the national average of 3.1.

Comparisons within Gloucestershire

- Looking at attainment and disadvantage gaps within the county, **Gloucestershire is generally a strong-performer at early years** with all constituencies having above-average attainment at age 5 and disadvantage gaps that are mostly slightly narrower than the national average.
- **Its performance is weaker by the end of primary school**, with most constituencies having below-average attainment at age 11, as well as slightly wider disadvantage gaps than the national average – with Stroud being the notable exception.
- **Gloucestershire's performance is mixed at the end of secondary school.** Whilst most constituencies have above-average GCSE attainment, their disadvantage gaps are variable in size relative to England as a whole.
- **Stroud stands out as the only Gloucestershire parliamentary constituency that has a narrower disadvantage gap *and* higher attainment than the national average at all phases** which may be useful to investigate further. The Cotswolds and Gloucester are the only constituencies to have disadvantage gaps that are wider or equal to the national average at all phases.

Comparisons beyond Gloucestershire

- We also consider attainment and disadvantage gaps in similar areas *beyond* Gloucestershire, identifying seven local authorities that are similar on a number of characteristics that are relevant to education outcomes: Kent (another selective school area, like Gloucestershire), West Sussex, East Sussex, Devon, Worcestershire, Cheshire West and Chester, and Suffolk.
- Of these comparators, **Gloucestershire tends to be in the top three best performing local authorities at all phases, most notably at the end of KS4** where Gloucestershire is the best performing local authority considering both attainment outcomes and the size of the

disadvantage gap. None of the comparators we considered stood out as areas of best practice with consistently higher than average attainment *and* narrower than average gaps across phases. These shared challenges may mean that rather than looking across to other rural local authorities with similar social mixes, Gloucestershire may need to test innovative new approaches to improve its GCSE outcomes for disadvantaged pupils.

Figure 1.1: Disadvantage gap timeseries for Gloucestershire compared with national average

	Early Years		KS2		KS4		
Year	Gloucestershire	National	Gloucestershire	National	Gloucestershire	National	
2011			10.2	10.6	20.4	19.7	Gap in months
2012			10.0	10.1	20.4	18.9	
2013	4.3	4.7	10.0	10.0	20.9	18.6	
2014	5.3	4.7	10.3	10.0	22.1	18.2	
2015	4.2	4.6	10.3	9.7	22.4	18.1	
2016	5.3	4.5	10.3	9.6	21.9	18.1	
2017	4.4	4.5	10.4	9.5	21.1	17.9	
2018	4.5	4.6	12.1	9.2	20.1	18.1	
2019	4.2	4.6	10.9	9.3	21.6	18.1	
2020					1.45	1.24	Gap in grades
2021					1.41	1.34	

Note that gap data is not available for 2020 and 2021 for early years and key stage 2 as assessments were cancelled due to the Covid-19 pandemic.

Next steps

In summary, through our analysis of the characteristics, attainment and disadvantage gaps of learners in Gloucestershire, we show that while disadvantaged pupils in Gloucestershire tend to be further behind than their national counterparts, the local authority generally performs favourably when compared to similar local authorities. Despite this, there are opportunities for Gloucestershire to learn from these comparators to narrow the gap. In taking these findings forward, we highlight the following issues as potentially worth further exploration:

- Although Gloucestershire has a slightly smaller early years gap than the national average, it is outperformed in both the size of the gap and attainment by Cheshire West and Chester and East Sussex. Is there best practice that these local authorities can share on supporting early years disadvantaged pupils to achieve?
- Gloucestershire's comparative performance in attainment and disadvantage gaps is weaker by the end of primary school than at the start, both relative to the national average and looking at variability within the county. Stroud is the notable exception – is there best practice that the rest of Gloucestershire can benefit from in terms of how Stroud maintains its high attainment and narrower gaps across the early years and KS2 phases?
- Gloucestershire has better overall GCSE attainment than England as a whole, as well as local authorities with a similar social mix of neighbourhoods. What more can be done to translate this into higher participation in education and training at ages 16 and 17?

- Gloucestershire pupils taking applied general qualifications and tech levels have begun to outperform the national average since 2020. What has driven this improvement and can policymakers learn from this success to support students taking A levels?
- Disadvantaged pupils in Gloucestershire progress to higher education and further education at a lower rate than disadvantaged pupils nationally. What more can policymakers do to support this group in progressing to post-16 education?

Data and methodology

2020 was an exceptional year in education due to the COVID-19 pandemic, with disruption continuing into 2021. A national lockdown and restrictions to in-person teaching led to assessments being cancelled in 2020 and 2021 for the early years and key stage 2, and the cancellation of exams for GCSEs, A levels and other post-16 qualifications. Instead, students' grades were based on centre assessed grades (CAGs) and teacher assessed grades (TAGs) in 2020 and 2021 respectively. These approaches raised average grades in both years.

For the early years and key stage 2 the cancellations of assessments in 2020 and 2021 means we are unable to estimate how the disadvantage gap in Gloucestershire has been impacted by the pandemic. Instead, we have summarised the position up until 2019 using our month gap measure (see 'month gap' below). To provide some sense of the direction of travel since the pandemic, we provide a commentary on the DfE's 2022 statistics for KS2 which uses a slightly different disadvantage gap measure, discussed in more detail below.

For key stage 4, we also use our month gap measure up to 2019, the last year in which examinations can be directly compared to historic results. For the pandemic years of 2020 and 2021, we use a grade gap measure for GCSEs as well as post-16 qualifications (see 'grade gap' below) to reflect the changes made to assessing attainment in these years under CAGs and TAGs. As for KS2, we use DfE's latest available data for 2022 to provide a sense of post-pandemic trends in the KS4 disadvantage gap, which again uses a slightly different gap measure discussed below.

Below is a summary of key definitions and methods for this report. With the exception of our analysis based on public datasets, all results are drawn from the National Pupil Database.

Disadvantaged and persistently disadvantaged pupils

We define a pupil as disadvantaged if they have been eligible for free school meals at any point in the last six years, and non-disadvantaged if they have not, using the same definition as the Department for Education. For the early years we do not have a six-year history of FSM eligibility so instead we measure disadvantage by whether they are eligible for FSM in the current academic year.

We define a pupil as persistently disadvantaged if they are eligible for free school meals for at least 80 per cent of their school life. This measure is not available in the early years.

Disadvantage gap in months for years up to 2019 – 'month gap'

For the pre-pandemic period, we measure the disadvantage gap by comparing the attainment of disadvantaged pupils and their peers. Using data on pupils' assessment results for each key stage, we order pupils by their results and assign them a rank. We calculate the average rank of the disadvantaged and non-disadvantaged pupil groups, and then subtract the latter from the former (this is the rank mean difference). Finally, we convert this into months of developmental progress, enabling us to reach a measure of how far behind poorer pupils are from their peers.

GCSE disadvantage gap in 2020 and 2021 – 'grade gap'

Alongside our months gap measure for the pre-pandemic period, we have developed an alternative measure to best reflect the disadvantage gap in 2020 and 2021 while taking account of the major

disruption to exams. Our GCSE disadvantage gap measure for 2020 and 2021 is the difference in average GCSE grades awarded in English and maths by disadvantaged pupils, compared with non-disadvantaged pupils. This grade gap measure contrasts with the months of learning gap calculation we use in previous years as the relationship between grades awarded and months of learning may have been distorted under the alternative assessment arrangements during the pandemic. We do not estimate a disadvantage gap for early years or key stage 2 in 2020 or 2021 because national assessments were not held for these phases in this year. More detail can be found in our 2022 Annual Report.[1]

Local authority disadvantage gaps, and other geographic breakdowns

We also report the gap on a geographic basis, covering local authorities (LAs) and parliamentary constituencies. In each we construct the gap by comparing (persistently) disadvantaged pupils in the area to the national attainment of those who are not disadvantaged (see national disadvantage gap for further explanation). We do this rather than estimate the difference between disadvantaged and non-disadvantaged pupils within the area to allow for a consistent reference point when making comparisons across different geographies. This avoids representing disadvantage gaps as being especially large in certain areas based on very high attainment of non-disadvantaged children in the area, rather than low attainment by disadvantaged children.

We classify geographical breakdowns based on pupil residence instead of the location of the school they attend. We do this because local authorities are not accountable for all schools within their area. This makes attainment more comparable across phases and between local authorities, as the geographical breakdowns are not influenced by differential secondary school admissions policies which can result in transfers of pupils across LA boundaries, thereby risking the introduction of bias into our estimates of the disadvantage gap.

Early years attainment

To measure educational progress in the early years, we use the total point score achieved by pupils in the Early Years Foundation Stage Profile (EYFSP), a teacher-led assessment at the end of Reception across a range of social, behavioural and cognitive development goals.

Key stage 2 attainment

At key stage 2, attainment is measured using the average of the reading and mathematics scaled scores. Scaled scores for these subjects are derived from national test results, and can take values between 80 and 120. We also take account of the teacher-assessed levels for pupils below the level of the test, whose scores range from 59 to 79. Here our attainment measure differs from the DfE's published statistics, as we include the approximately 3 per cent of pupils in each of reading and mathematics who did not take the test. This proportion is not consistent across local authorities and hence some authorities are affected more than others by this different approach. For example, this affects reading results for just over 1 per cent of pupils in Richmond-upon-Thames; over 6 per cent of pupils in Rotherham and Hackney; and over 7 per cent in Hammersmith and Fulham.

[1] Tuckett, S. *et al*. 'COVID-19 and Disadvantage Gaps in England 2021', EPI, December 2022.

Key stage 4 attainment

To assess overall attainment at secondary level we measure pupils' average GCSE grade across English and maths. We use the 9 to 1 grading system, which was introduced in 2017 for English and maths.[2] We are still able to compare disadvantage gaps before and after qualification reform as they are based on changes in the rank performance of pupils, not their absolute performance. We are effectively measuring the change of within-year rank of various pupil groups, not absolute scores.

16-19 disadvantage gap – 'grade gap'

In 2021, EPI published new analysis developing a measure of the disadvantage gap for students at the end of 16-19 education.[3] The calculation of the post-16 gap is necessarily different to the method used at GCSE and below, because of the multitude of pathways and qualifications open to study after the age of 16. The 16-19 disadvantage gap is calculated as the mean average, equivalent number of A level grades that disadvantaged students were behind non-disadvantaged students, over their best three qualifications taken at level 1 to 3 in this phase.[4]

This gap measure includes all students at the end of their 16-19 study at a state-maintained school or college (other than those on apprenticeship programmes). Not included are students that appeared in key stage 4 data but did not appear in data indicating they had completed 16-19 study by age 19 (i.e. those that did not continue in any form of education beyond the age of 16). Disadvantaged students are defined as those who were known to be eligible for and claiming free school meals in any of the six years prior to finishing key stage 4.

[2] For years pre-dating the 9 to 1 grading system, we adjust average scores in prior years by mapping across the old score boundaries to the new, and interpolating to produce an adjusted figure. Further detail can be found in the Annex of our Annual Report 2022.

[3] Tuckett, S. *et al*. 'Measuring the disadvantage gap in 16-19 education', EPI, March 2021.

[4] To calculate the average attainment of disadvantaged and non-disadvantaged students, points must be allocated to different qualifications and grades which will form a total point score for each student. EPI's full report on measuring the 16-19 gap (Tuckett 2021), notes that "How points are allocated to different qualifications and grades will depend on what values are ascribed to qualifications, and there is no methodology that serves all purposes. This is especially the case for the 16-19 phase, given the multitude of pathways students progress onto afterwards e.g. apprenticeships, higher education, employment, all of which will have different qualification requirements." A variety of options were consulted on and tested. The method used in this paper allocates equal points to qualifications which require equal levels of teaching hours to complete, referred to as 'method 1' in the full methodology report (Tuckett 2021).

Trends in early years attainment and disadvantage gaps

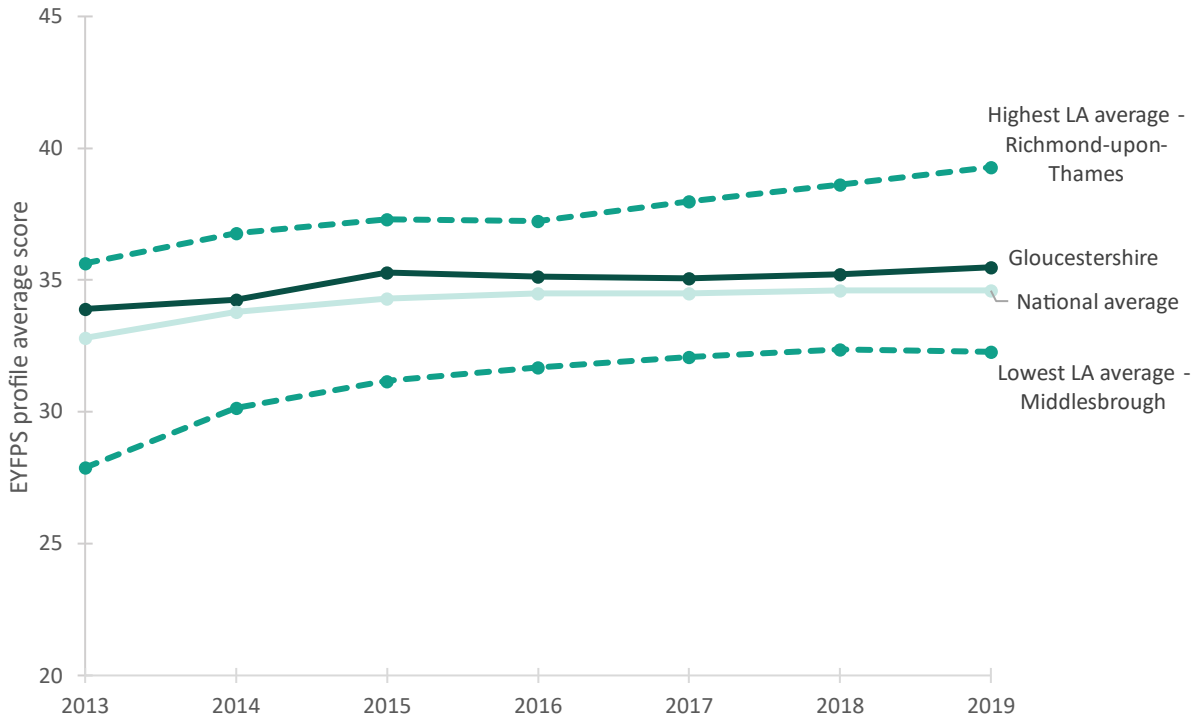
Early years: attainment and characteristics

This section looks at pupil attainment and characteristics in early years for children in Gloucestershire, compared with the national average.

The attainment and gap measures in this section are based on attainment in the early years foundation stage profile (EYFSP). This is a teacher-led assessment of a child's progress towards the 17 early learning goals (measuring social, behavioural and cognitive development) in the final term of the year in which they turn 5.

As shown in figure 2.1.1, in 2019 the national average EYFSP total point score was 34.6 (on a scale from 17 to 51). The average score in Gloucestershire was 35.5. In England the highest scoring LA was Richmond-upon-Thames with an average score of 39.3 and the lowest was Middlesbrough with an average of 32.3. The lower quartile for attainment in 2019 was 33.9 points and the upper quartile was 35.3, putting Gloucestershire (just) into the top quarter of authorities for attainment at age 5.

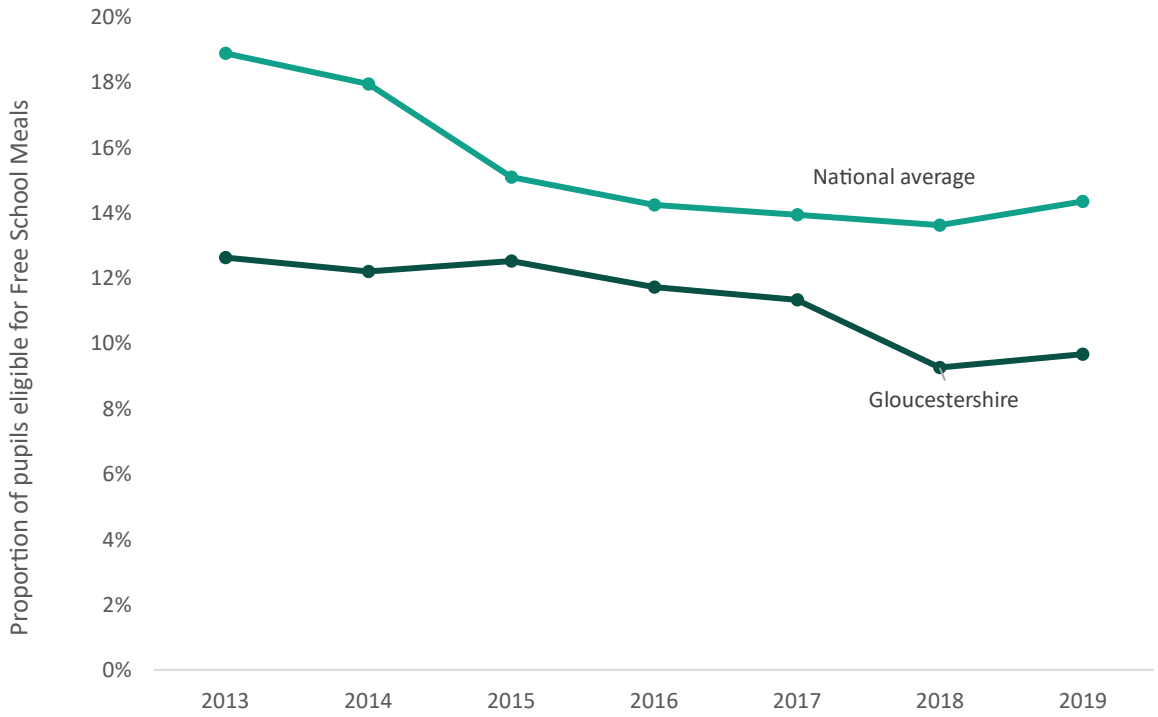
Figure 2.1.1: Average score in the EYFS profile assessment for Gloucestershire, the England average and the highest and lowest LA averages



For context, figure 2.1.2 shows the share of early years pupils who are disadvantaged. We define a pupil as being disadvantaged in reception if they are eligible for free school meals (FSM) in the current academic year, as we do not have a pupil-history of FSM eligibility as we do for later key stages. On average around 770 pupils out of a population of 6,600 are disadvantaged in reception year in Gloucestershire.

Gloucestershire consistently has a smaller proportion of disadvantaged reception year pupils than the national average. Between 2013-2018 the proportion of disadvantaged pupils fell both nationally and in Gloucestershire. Although Gloucestershire saw a drop in the proportion of disadvantaged early years pupils, there are initial signs this started to reverse in 2019, in line with national trends. In 2019, 9.7 per cent of early years pupils in Gloucestershire were FSM eligible compared with 14.3 per cent nationally. Post-pandemic data from the DfE shows this proportion has increased in 2022 to 11.2 per cent compared with 18.8 per cent nationally.

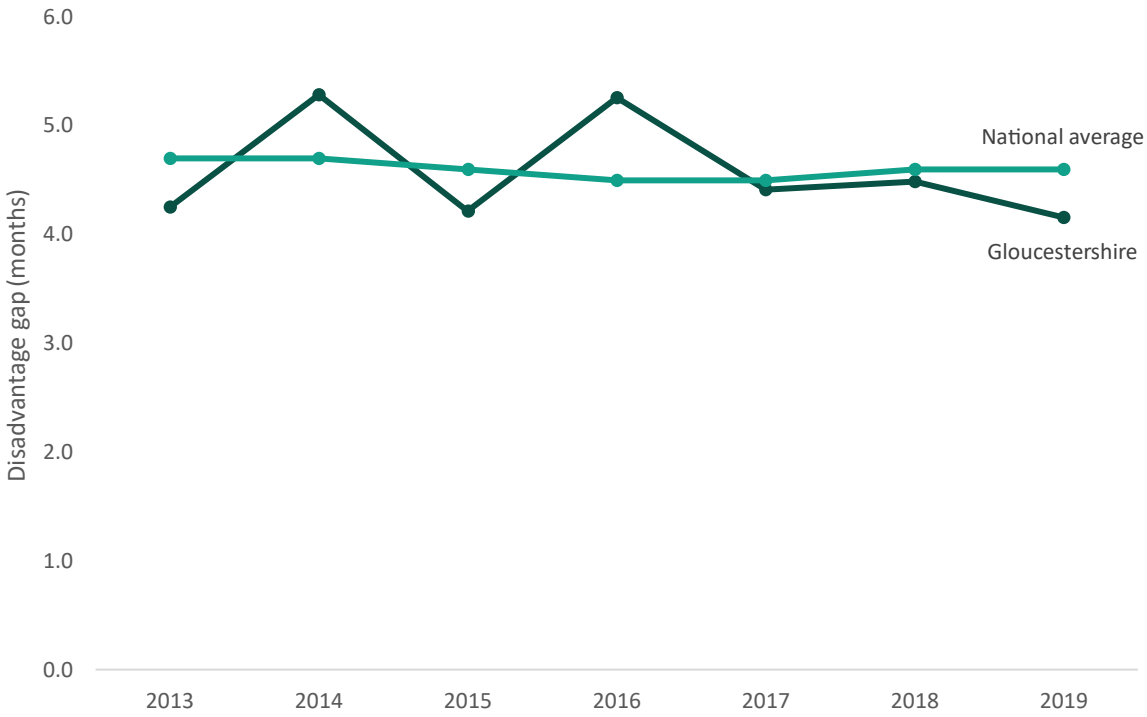
Figure 2.1.2: Share of EYFS pupils eligible for FSM, Gloucestershire and national average, 2013-2019



Early years: disadvantage gap

Figure 2.1.3 looks at the disadvantage gap. This measures how far disadvantaged pupils are behind their non-disadvantaged peers at the end of the EYFS, using the EYFS profile as our attainment measure. Between 2013 and 2018, the EYFS disadvantage gap in Gloucestershire oscillated between smaller and larger than the national average. However, by 2019, the gap in Gloucestershire had shrunk to its smallest in a decade at 4.2 months, compared with the national average of 4.6 months. 37 per cent of local authorities still had an early years gap that was lower than Gloucestershire's in 2019.

Figure 2.1.3: Disadvantage gap, in months, for the EYFS profile, Gloucestershire and national average, 2013-2019



Overall, pupils finishing Reception year in Gloucestershire are less likely to be disadvantaged than in England nationally. The disadvantage gap in Gloucestershire has fallen slightly below the national average in recent years, meaning that disadvantaged pupils in Gloucestershire finish Reception year slightly less far behind than other disadvantaged pupils nationally. However, note the volatility of this measure over a longer time period and overall, the Gloucestershire gap remains close to the national average.

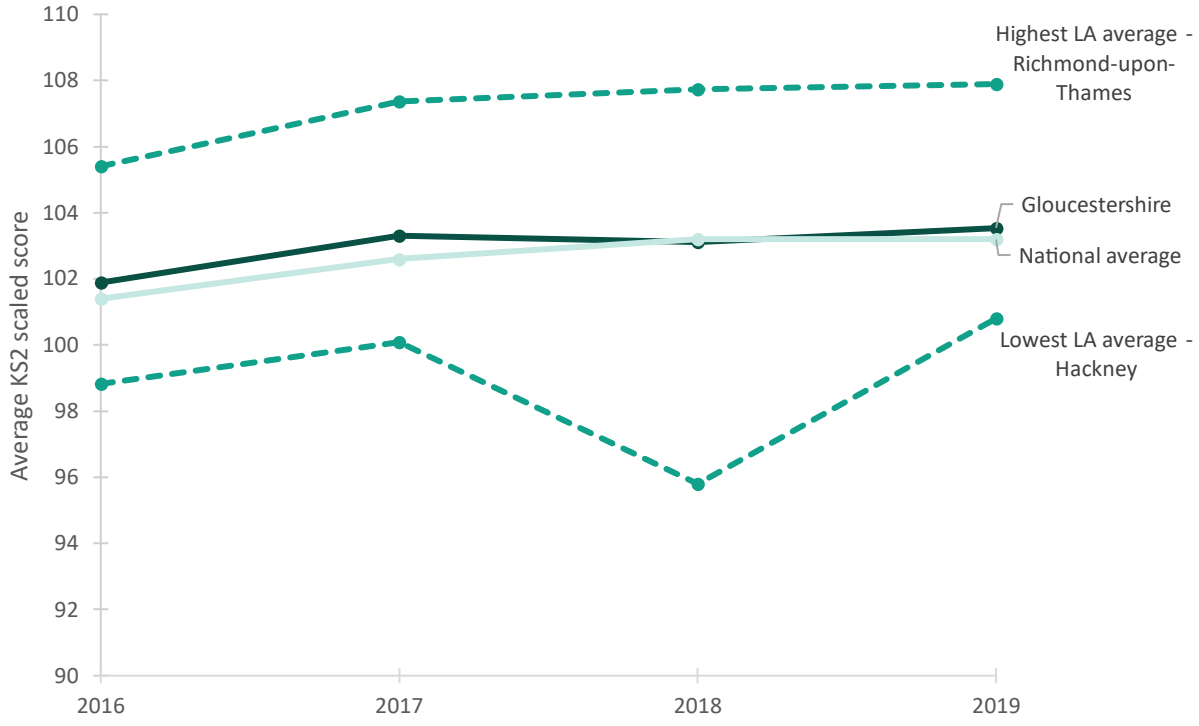
Trends in key stage 2 attainment and disadvantage gaps

Key stage 2: attainment and characteristics

This section considers pupil attainment and characteristics at the end of primary school. We measure attainment using the average scaled score in reading and maths at key stage 2 (KS2). We only include reading and maths to ensure consistency over time, given historic changes in the writing assessment framework. We track KS2 attainment back to 2016, when the new assessments were introduced, as post-2016 assessments cannot be compared with attainment results before this change.

The average scaled score in reading and maths in Gloucestershire in 2019 was 103.5 points, similar to the national average of 103.2. The highest performing local authority in 2019 was Richmond-upon-Thames with an average score of 107.9, and the lowest performing local authority was Hackney, with a score of 100.8.[5] The lower quartile for attainment at LA-level in 2019 was 102.6 points, and the upper quartile was 103.9, putting Gloucestershire's performance as middle-of-the-pack at KS2.

Figure 2.2.1: Average KS2 scaled score in Gloucestershire, England average, and highest and lowest LA averages



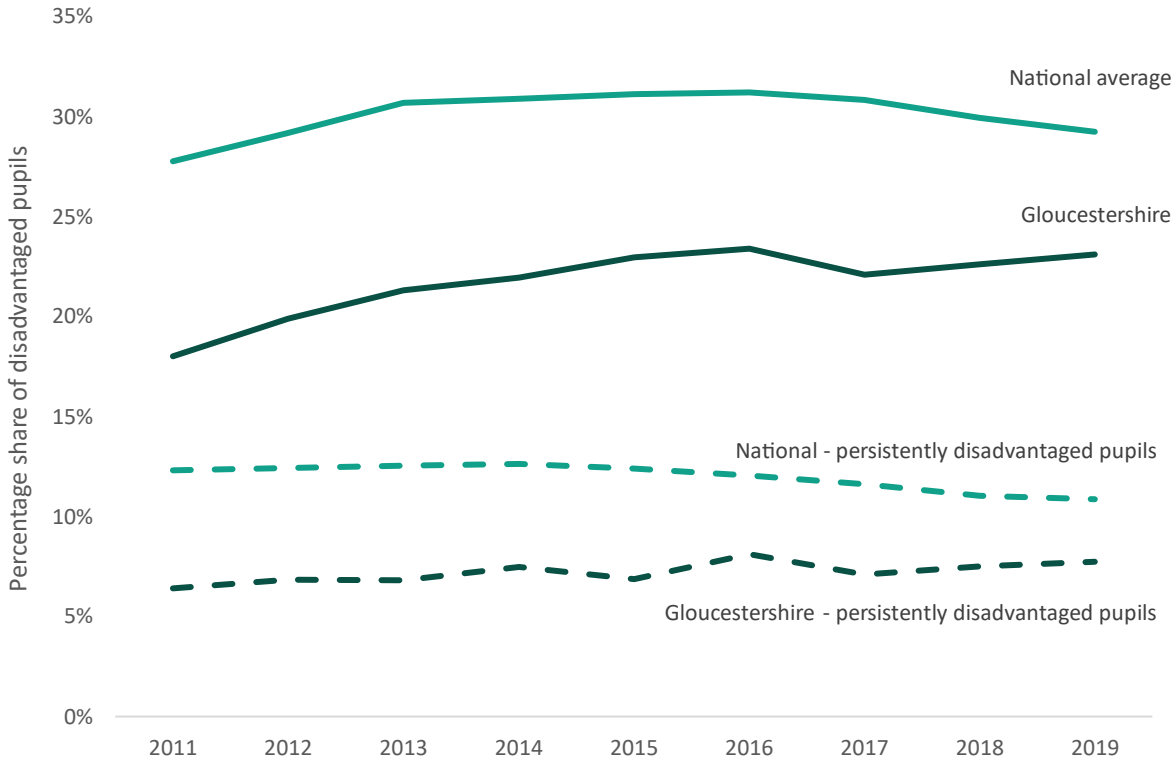
[5] The low performance of Hackney is not reflected in DfE's published statistics which shows Hackney as performing above the national average in 2019. This discrepancy can be explained by us using a slightly different KS2 attainment measure. Unlike the DfE's headline measure, we include the approximately 3 per cent of pupils in each of reading and mathematics who did not take the test. This proportion is not consistent across local authorities and hence some authorities are affected more than others by this different approach. For example, this affects reading results for just over 1 per cent of pupils in Richmond-upon-Thames and over 6 per cent of pupils in Hackney.

Figure 2.2.2 compares the share of pupils in Gloucestershire who are disadvantaged at the end of KS2 with the national average. Unlike in the early years, disadvantage is based on being eligible for free school meals at any point in the previous six years (as opposed to being eligible in the reception year). It also shows for Gloucestershire the percentage of pupils who are persistently disadvantaged (eligible for free school meals for at least 80 per cent of their time at school). We create this longitudinal measure using school census data to track the length of time that pupils are eligible for FSM. We report on this subgroup of disadvantaged pupils separately because those who are in long-term poverty tend to have far worse educational outcomes. On average around 1,350 pupils in Gloucestershire are disadvantaged and 450 pupils are persistently disadvantaged at the end of KS2 each year out of a total average population of 6,150.

Gloucestershire has a below-average level of disadvantage at the end of the primary phase, with 23.1 per cent of pupils being disadvantaged in Gloucestershire in 2019 compared with 29.3 per cent nationally. Since 2011, this difference has narrowed; in 2011, 18.0 per cent of primary pupils in Gloucestershire were disadvantaged compared with 27.8 per cent nationally. While the national share of disadvantaged pupils has begun to fall since 2017, in Gloucestershire this share has remained largely static since 2015.

Gloucestershire also has a below-average level of persistent disadvantage at the end of primary phase, with 7.8 per cent of pupils being persistently disadvantaged in Gloucestershire in 2019 compared with 10.9 per cent nationally.

Figure 2.2.2: Share of KS2 pupils who are disadvantaged, Gloucestershire and national average, 2011-2019

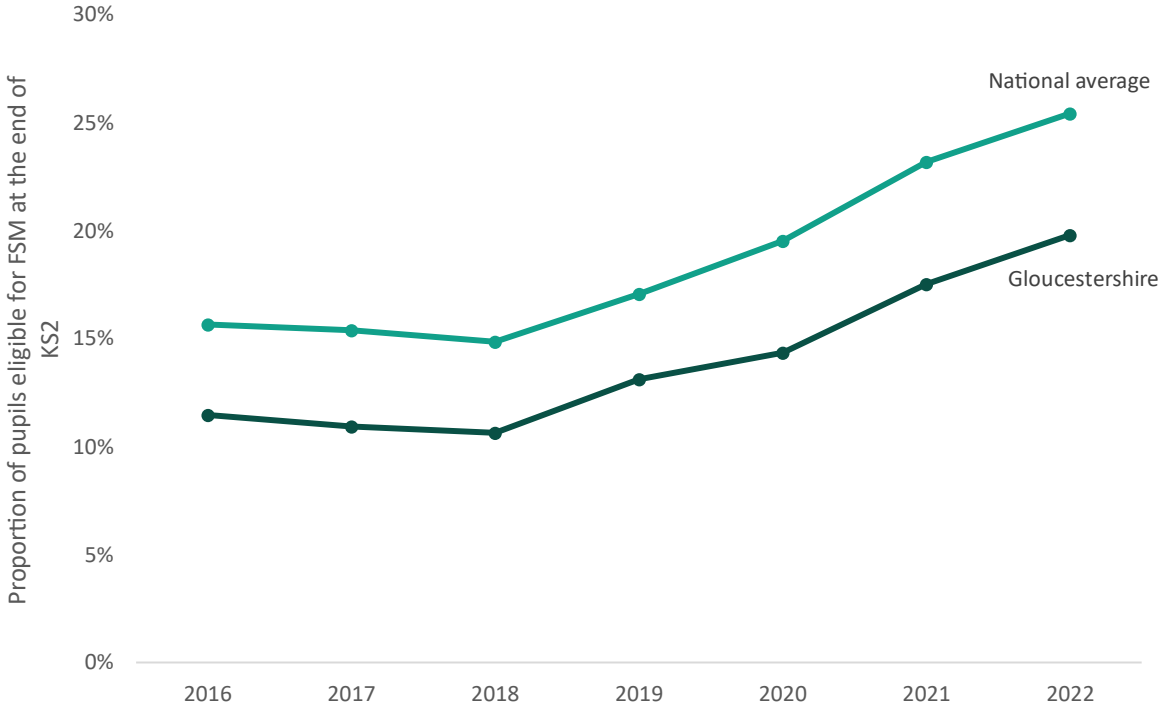


We can also consider more recent DfE data from 2022 based on the proportion of pupils who are currently eligible for Free School Meals at the end of primary school (rather than the disadvantaged

definition in Figure 2.2.2 which is based on those eligible for FSM in any of the previous six years and broadly consistent with the pupil premium). Figure 2.2.3, based on the DfE measure, shows a different pattern as it is not operating with a six-year lag. Whilst Gloucestershire continues to have a lower proportion of FSM-eligible pupils finishing primary school than the national average, this proportion has risen sharply to 19.8 per cent in Gloucestershire in 2022 (compared with 25.4 per cent nationally).

The rising share of FSM pupils in Gloucestershire and nationally is clearly evident from 2019 when there were changes in criteria for claiming FSM with the introduction of Universal Credit (UC) and associated transitional arrangements put in place to protect pupils against losing FSM during UC rollout. However it is also consistent with wider evidence showing rising poverty among young children, particularly in families with three or more children. These changes and their implications for measuring the gap are discussed further in our recent report 'Covid-19 and Disadvantage Gaps in England 2021' (Tucket et al, 2022).

Figure 2.2.3: Proportion of pupils eligible for FSM at the end of KS2, Gloucestershire and national average, 2016-2022



Source: DFE, Schools, Pupils and their Characteristics, (2021/22)

Key stage 2: disadvantage gaps

Figure 2.2.4 compares the disadvantage gap at the end of KS2 in Gloucestershire with the national average. We find that the disadvantage gap in Gloucestershire has been wider than in England in recent years, having previously been closely tracking the national average over the period 2011 to 2014. Disadvantaged pupils were 10.9 months behind at the end of KS2 in 2019, compared with 9.3 months nationally. Gloucestershire has a larger disadvantage gap at KS2 than 72 per cent of local authorities in England.

The difference between Gloucestershire and the national average has grown since 2013 with the gap in Gloucestershire reaching its peak of 12.1 months in 2018. This started to reverse in 2019, bringing Gloucestershire closer to the national average prior to the onset of the pandemic. However, this progress in gap-narrowing was not sustained when looking at more recent data since the onset of the pandemic, where we see Gloucestershire's gap widening once again (discussed below).

Figure 2.2.4: Disadvantage gap (in months) at the end of KS2 for pupils in Gloucestershire and national average, 2011-2019

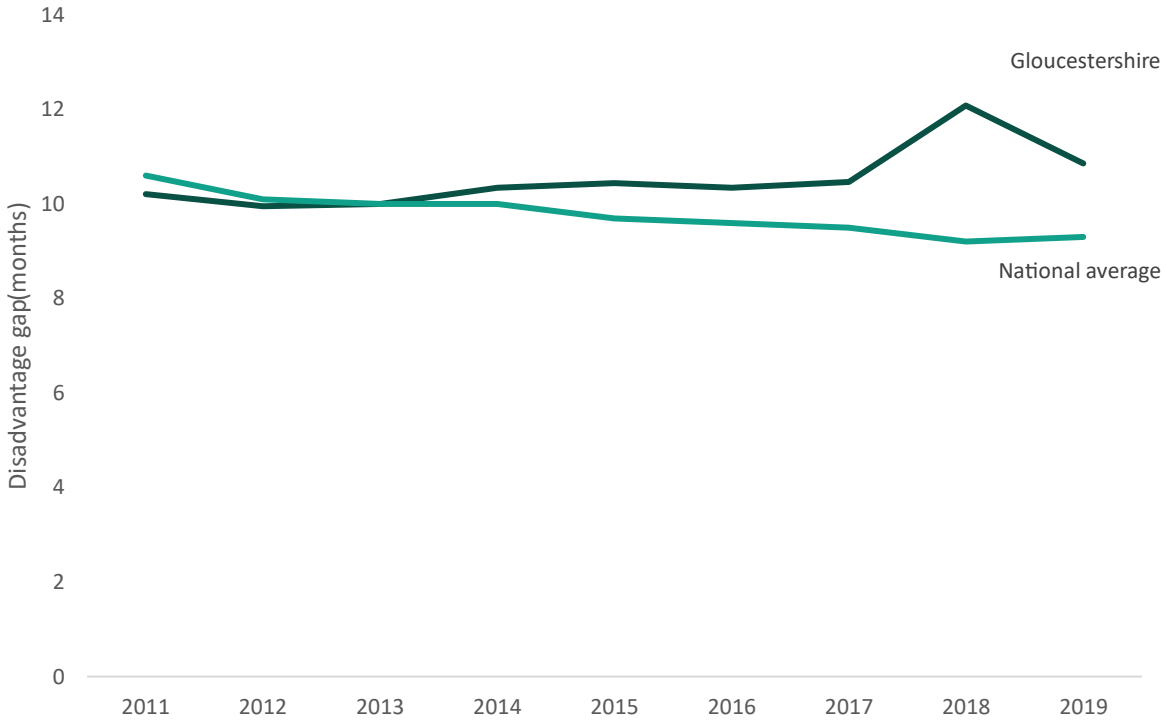
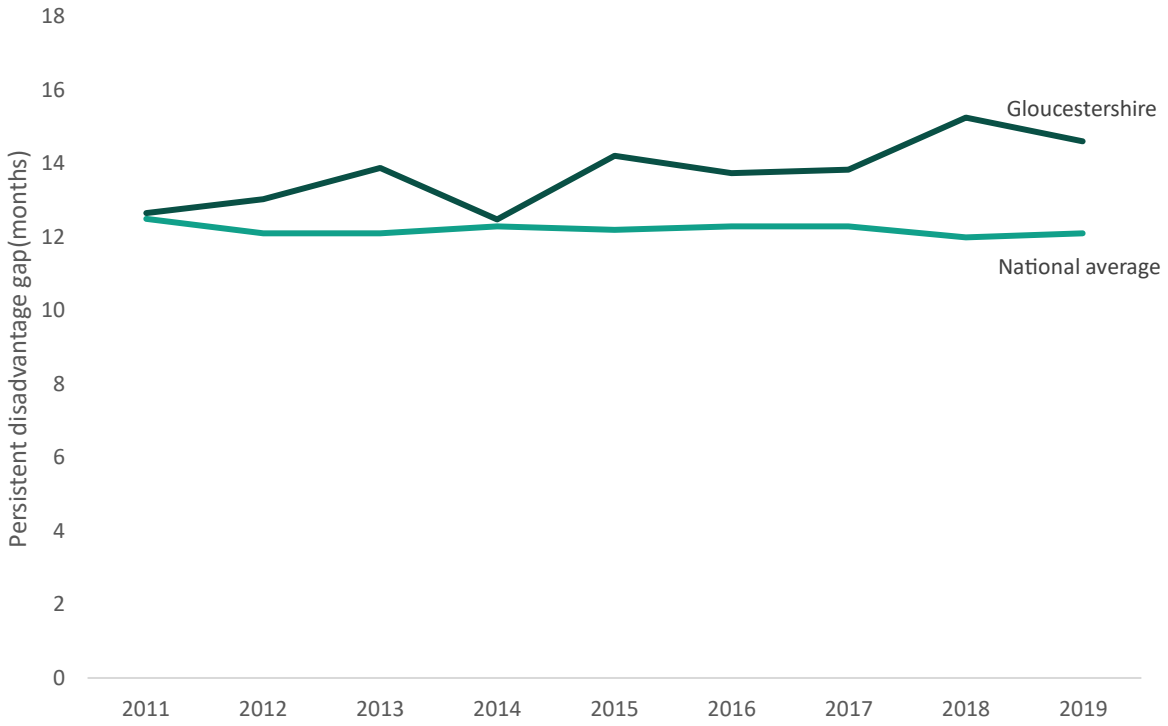


Figure 2.2.5 illustrates the persistent disadvantage gap in months at the end of KS2, comparing Gloucestershire and the national average. As with the headline disadvantage gap for KS2, we find that Gloucestershire has a higher persistent disadvantage gap than is the case nationally. Pupils in Gloucestershire who have been FSM eligible for at least 80 per cent of their school life at the end of KS2 were typically 14.6 months behind their peers in 2019, compared with 12.1 months nationally.

We should be cautious in drawing conclusions about yearly changes in the persistent disadvantage gap in local authorities due to the relatively smaller number of persistently disadvantaged pupils. However, the trend seen in the persistent disadvantage gap does mirror the trend seen in the headline disadvantage gap. Overall in this time period the persistent disadvantage gap in Gloucestershire averages about 13.7 months, in comparison with the average of 12.2 months at a national level.

Figure 2.2.5: Persistent disadvantage gap at the end of KS2 for pupils in Gloucestershire and national average, 2011-2021



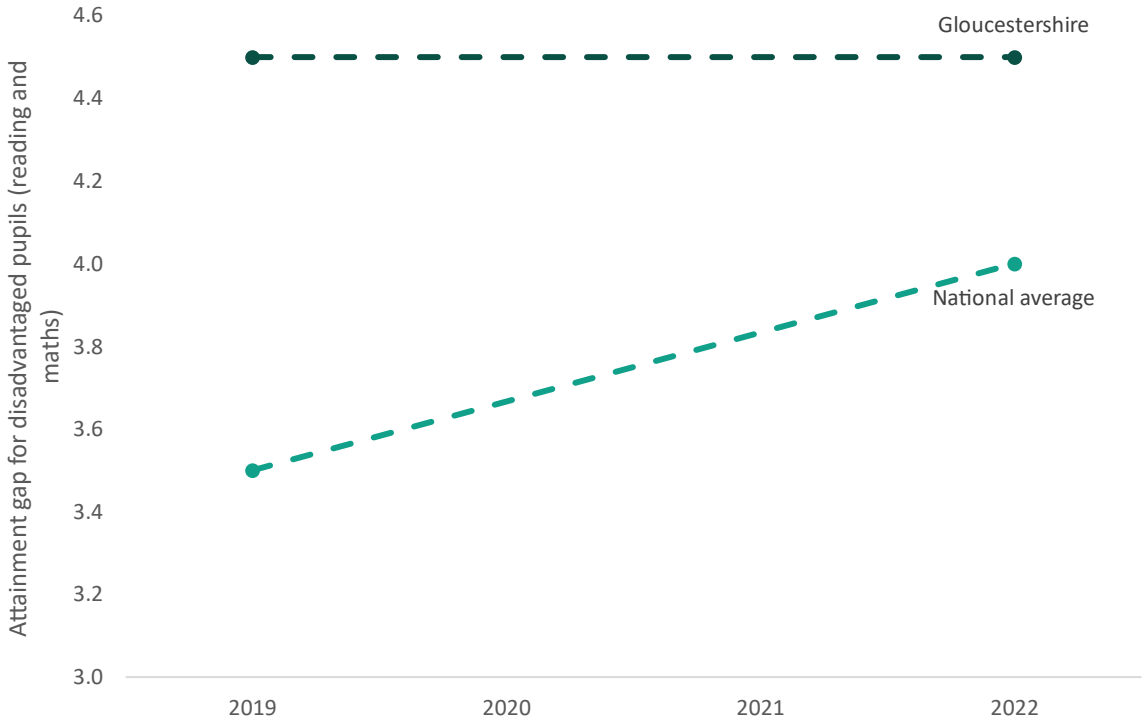
Overall, Gloucestershire has a lower share of disadvantaged pupils at the end of KS2 than England. These disadvantaged pupils in Gloucestershire tend to finish KS2 further behind than their peers than other disadvantaged pupils nationally. In England, disadvantaged pupils finish primary school 9.3 months behind their peers. In Gloucestershire disadvantaged pupils are a further 1.6 months behind, meaning the KS2 disadvantage gap in Gloucestershire is 10.9 months. This is the picture of the Gloucestershire disadvantage gap as 2018/19, the latest year for which we have data prior to the pandemic. Pupils in Gloucestershire who are persistently disadvantaged through their primary school life are 14.6 months behind their peers, and this gap has widened by 2.0 months since 2011, a worrying trend which places the pupils in persistent poverty in Gloucestershire even further behind the poorest pupils nationally.

Finally, we take a brief look at the direction of travel for disadvantaged pupil outcomes in Gloucestershire at KS2, based on the latest DfE attainment statistics for 2022. Figure 2.2.6 shows the attainment gap (the raw difference in average scaled scores in reading and maths) between disadvantaged pupils in Gloucestershire and non-disadvantaged pupils nationally compared with the equivalent disadvantage gap for England as a whole.

Without attainment data in 2020 and 2021, it is difficult to draw conclusions on the trends in the disadvantage gap since the onset of the pandemic. However, in 2019 the disadvantage gap in Gloucestershire was above the national average, with a 4.5 point gap in Gloucestershire compared with a 3.5 point gap nationally. The Gloucestershire gap remained static in 2022, while the national disadvantage gap increased to 4.0 points. Disadvantaged pupils in Gloucestershire attained 0.5 points lower in 2022 compared to 2019, as did non-disadvantaged pupils nationally, leaving Gloucestershire's overall gap unchanged in 2022. Disadvantaged pupils nationally, however, attained

1.0 point lower in 2022 causing the national gap to increase slightly. It is encouraging that the Gloucestershire gap at the end of primary school did not increase in the aftermath of the pandemic, at a time when the national KS2 gap did, though it will be important to continue to monitor how the KS2 gap evolves beyond 2022.

Fig 2.2.6: Attainment gap at the end of KS2 for disadvantaged pupils in Gloucestershire and national average (2019 and 2022)



Source: DfE, Key stage 2 attainment (2021/22)

Key stage 4 attainment and disadvantage gaps

Key stage 4: attainment and characteristics

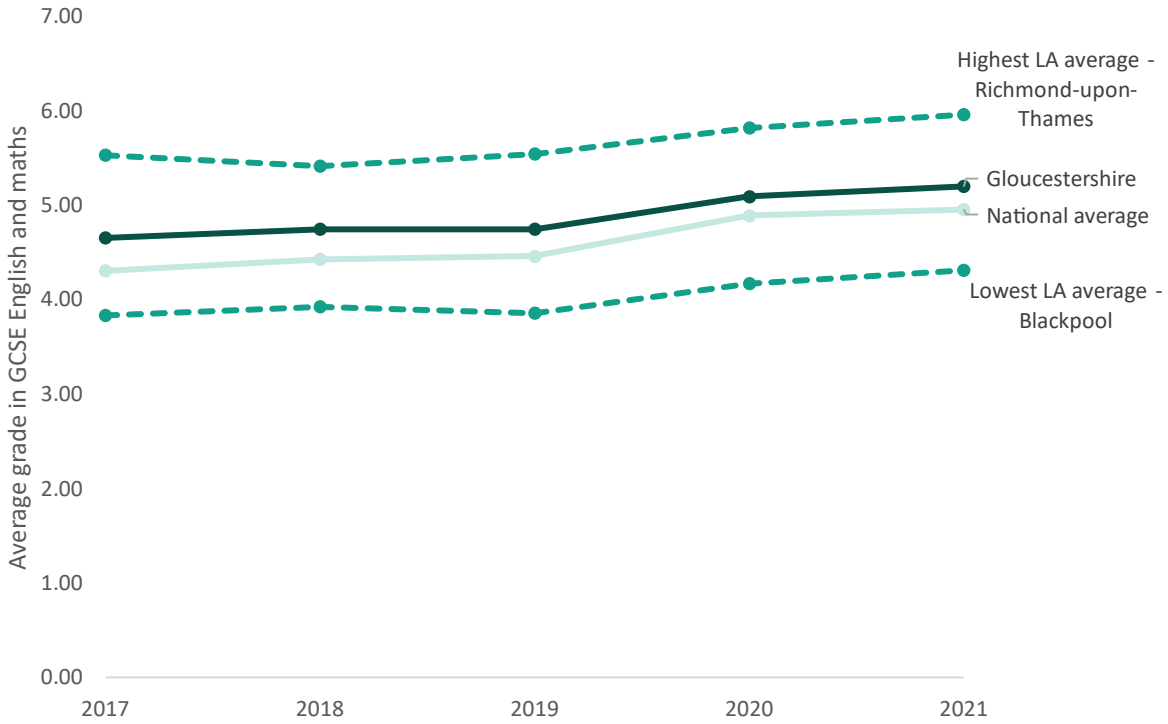
This section considers pupil attainment and characteristics at the end of secondary school, or key stage 4 (KS4). Our attainment and disadvantage gap measure is based on pupils' average GCSE grades in English and maths. These core subjects, while quite narrow, are unaffected by changes in GCSE subject entry patterns so provide a consistent measure over time.

Whereas data is only available up to 2019 for earlier phases (reflecting the cancellation of early years and KS2 assessments during the pandemic), here we estimate the KS4 disadvantage gap for the period up to 2021. The introduction section of this report gives context for how KS4 results in 2020 and 2021 were impacted by the pandemic, and how we have adjusted our gap calculation to reflect this.

The grades awarded to students in 2020 and 2021 (based on centre-assessed and teacher-assessed grades respectively) are not comparable with previous years' exam results. Consequently, we have adjusted our gap measure so that from 2020, instead of expressing the gap in months of learning as we do for pre-pandemic years, it refers to the difference in average GCSE grades awarded between disadvantaged pupils and their non-disadvantaged peers. We make this adjustment to our gap measure because the GCSE grades awarded in the absence of exams may be a less reliable guide to underlying learning.

In 2021, the average GCSE grade awarded in English and maths in Gloucestershire was 5.20, compared with 4.95 nationally. The highest attainment in 2021 for any local authority was Richmond-upon-Thames (averaging 5.96 grades), and the lowest was Blackpool (4.31 grades). The lower quartile for attainment in 2021 was 4.77 grades, and the upper quartile was 5.17, putting Gloucestershire in the top quarter of local authorities in terms of attainment.

Figure 2.3.1: Average grade in GCSE English and maths in Gloucestershire, England average, and highest and lowest LA averages

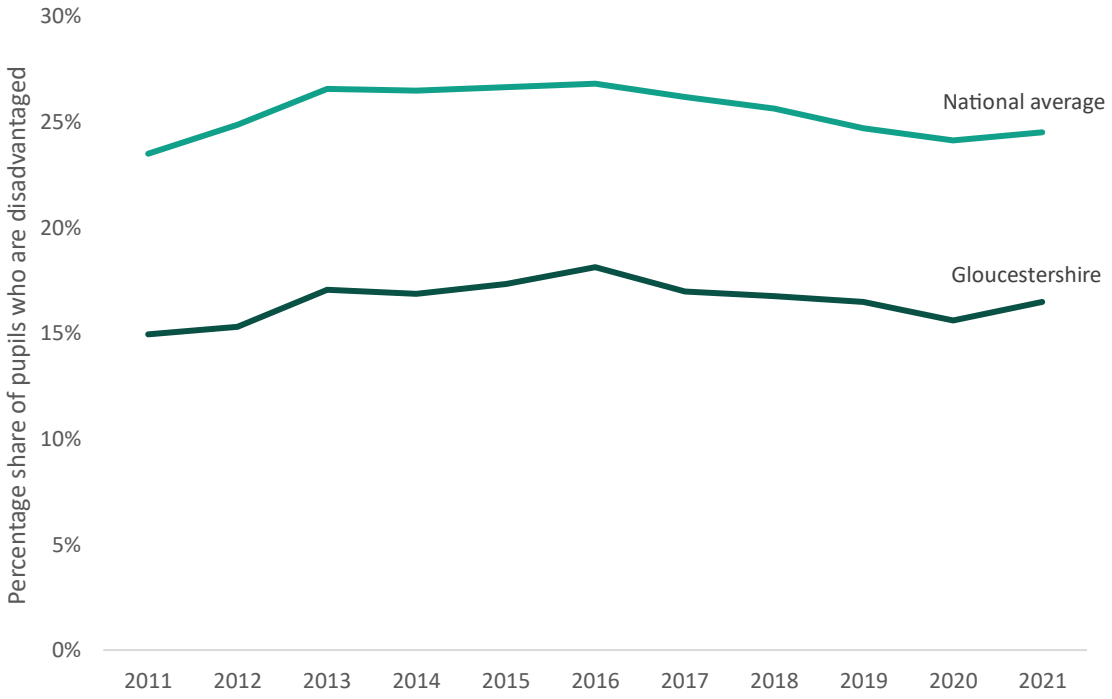


To help put attainment trends in Gloucestershire in context, we examine the level of disadvantage and persistent disadvantage compared with England nationally (seen in Figures 2.3.2 and 2.3.4 respectively). As in the early years and KS2, we find that Gloucestershire pupils are less likely to be disadvantaged. As at KS2, we define a pupil as disadvantaged if they have been eligible for free school meals at any point in the previous six years and persistently disadvantaged if they have been eligible for at least 80 per cent of their time in school. On average there are about 1,015 disadvantaged pupils and 300 persistently disadvantaged pupils in Gloucestershire each year of this gap analysis, out of a total population of 6,150.

In 2021, 16.5 per cent of pupils finishing KS4 in Gloucestershire were disadvantaged compared with 24.5 per cent nationally.

Although much less disadvantaged than England as a whole, trends over time in Gloucestershire have closely echoed the national picture: the level of disadvantage increased between 2011 and 2015, reaching a peak in Gloucestershire in 2016 at 18.1 per and 26.8 per cent nationally. Since 2016 the level of disadvantage has fallen by just over 0.5 percentage points each year until 2020, before rising again in 2021.

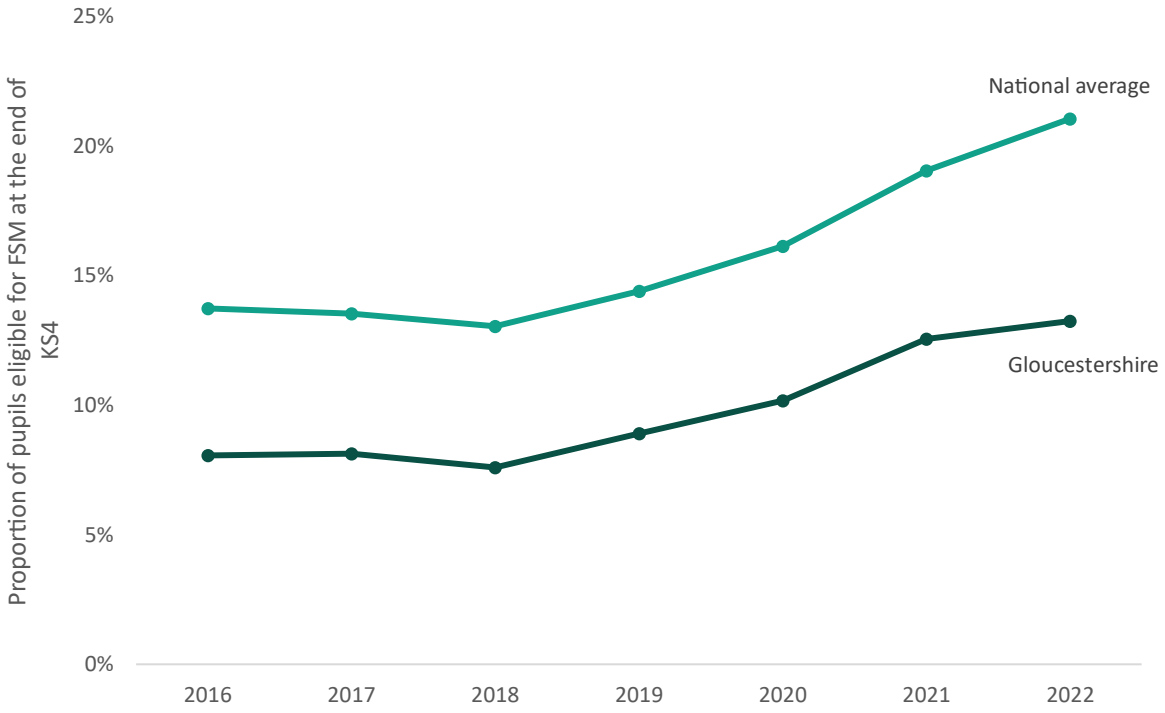
Figure 2.3.2: Share of KS4 pupils who are disadvantaged, Gloucestershire and national average, 2011-2021



We also consider more recent DfE data based on the proportion of pupils who are currently eligible for Free School Meals at the end of secondary school (rather than those eligible for FSM in any of the previous six years). This shows a different pattern as, unlike the disadvantaged definition in Figure 2.3.2, it is not operating with a six-year lag. Whilst Gloucestershire continues to have a lower proportion of FSM-eligible pupils finishing secondary school than the national average, this proportion has risen sharply in both Gloucestershire and England as a whole. By 2022, 13.3 per cent of Gloucestershire pupils were FSM-eligible compared with 21.1 per cent nationally.

As for KS2, the rising share of FSM pupils in Gloucestershire and nationally is clearly evident from 2019 when there were changes in criteria for claiming FSM with the introduction of Universal Credit (UC) and associated transitional arrangements put in place to protect pupils against losing FSM during UC rollout. However these patterns are also consistent with wider evidence of rising underlying poverty and are discussed further in our recent report 'Covid-19 and Disadvantage Gaps in England 2021' (Tucket et al, 2022).

Figure 2.3.3: Proportion of pupils eligible for FSM at the end of KS4, Gloucestershire and national average, 2016-2022

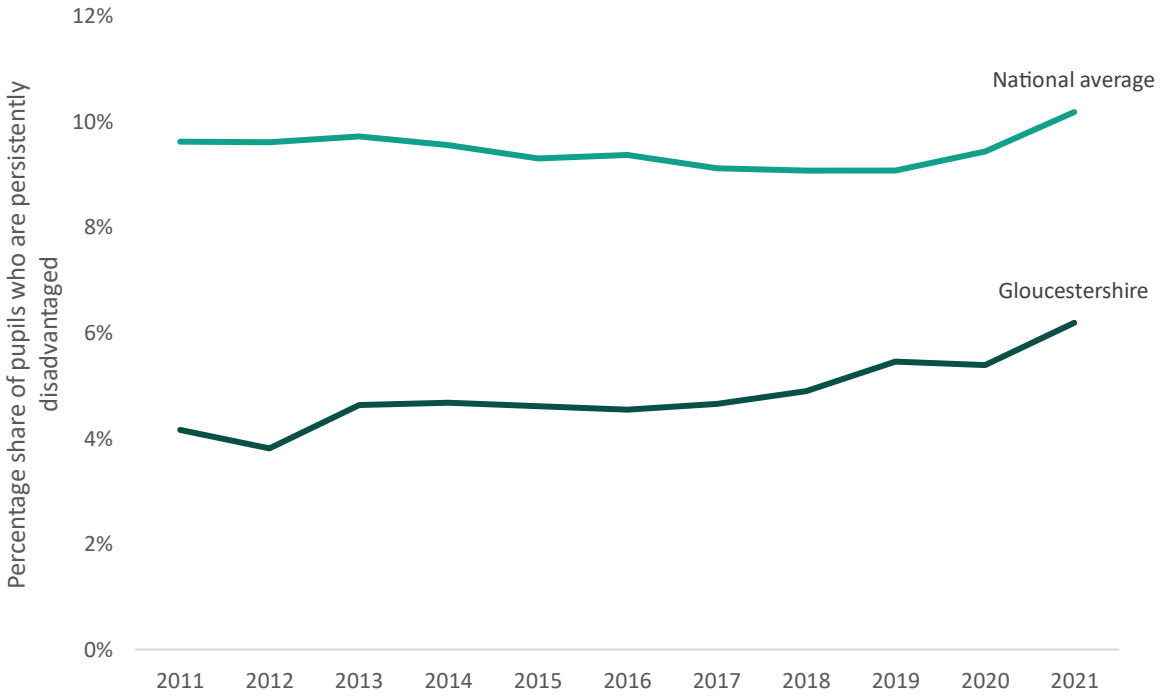


Source: DFE, Schools, Pupils and their Characteristics, (2021/22)

Figure 2.3.4 shows the proportion of pupils who are persistently disadvantaged in Gloucestershire compared with the national average. Gloucestershire pupils are also much less likely to be growing up in long-term poverty than the national average. In Gloucestershire, 6.2 per cent of pupils finishing their GCSEs in 2021 had been disadvantaged for at least 80 per cent of their school life, the highest proportion in the last decade. By comparison, the level of persistent disadvantage in England nationally was 10.2 per cent.

In terms of trends over time, the national level of persistent disadvantage marginally declined throughout the decade of 2010. However, between 2019 and 2021 the share of persistently disadvantaged pupils rose by 1.1 percentage points nationally. By contrast, in Gloucestershire the proportion of persistently disadvantaged pupils has been on a long-term upward trend since its low of 3.8 per cent in 2012, rising by 2.4 percentage points to 6.2 per cent by 2021.

Figure 2.3.4: Share of KS4 pupils who are persistently disadvantaged, Gloucestershire and national average, 2011-2021



Key stage 4: disadvantage gaps

Figure 2.3.5 illustrates the disadvantage gap at KS4 between 2011 and 2021 in Gloucestershire compared with the national average. As explained above, for the pre-pandemic period between 2011 and 2017, we use our historic month gap measure, while for 2020 and 2021, we use our new GCSE grade gap measure. 2017 to 2019 are 'bridging years', where we use both measures for comparison.

In the first half of the decade the national gap was closing but the rate at which it was closing was decreasing. By 2016, the gap stabilised at around 18 months, with a small increase between 2017 and 2019 as we entered the pandemic. For the first cohort of pupils impacted by the pandemic in 2020, the disadvantage gap did not widen as expected (as the widespread grade increases that occurred under centre assessments benefited disadvantaged pupils as much as non-disadvantaged ones). But in the following year – which was even more disrupted by the pandemic – the gap rose significantly in 2021 by around 0.10 grades, reaching the highest level since 2012 at 1.34 grades.

The gap in Gloucestershire over the same period has been more volatile but has been consistently above the national average. In 2011 the gap in Gloucestershire was close to the national average at 20.4 and 19.7 months respectively. Over the next four years, the gap in Gloucestershire rose to a high of 22.4 months in 2015 at a time when the national gap was falling. Following this, the Gloucestershire gap narrowed steadily o its lowest since 2011 at 20.1 months in 2018 but remained above the national average.

A sharp rise in 2019 to 1.51 grades (on our alternative grade gap measure for assessing change during the pre- and post-pandemic period) has since been reduced over the following two years to 1.41 grades in 2021. The narrowing in the measured gap in Gloucestershire during this period puts

disadvantaged pupils in Gloucestershire 0.70 grades further behind disadvantaged pupils nationally. However as grades during the pandemic were awarded using alternative processes rather than exams, it is not possible to disentangle whether the narrowing reflects relative improvements in underlying learning among Gloucestershire's disadvantaged pupils or differential effects of the grading processes unique to those years. It will be important to continue to monitor the KS4 gap in future years but initial signs looking at the 2022 data is that this apparent progress in gap-narrowing was not sustained (discussed below).

Overall, the gap in Gloucestershire has been consistently higher than the national average over the last decade and in 2021, Gloucestershire had a larger disadvantage gap at KS4 than 42 per cent of local authorities in England.

Figure 2.3.5: Disadvantage gap at end of KS4 for pupils in Gloucestershire and national average, 2011-2021

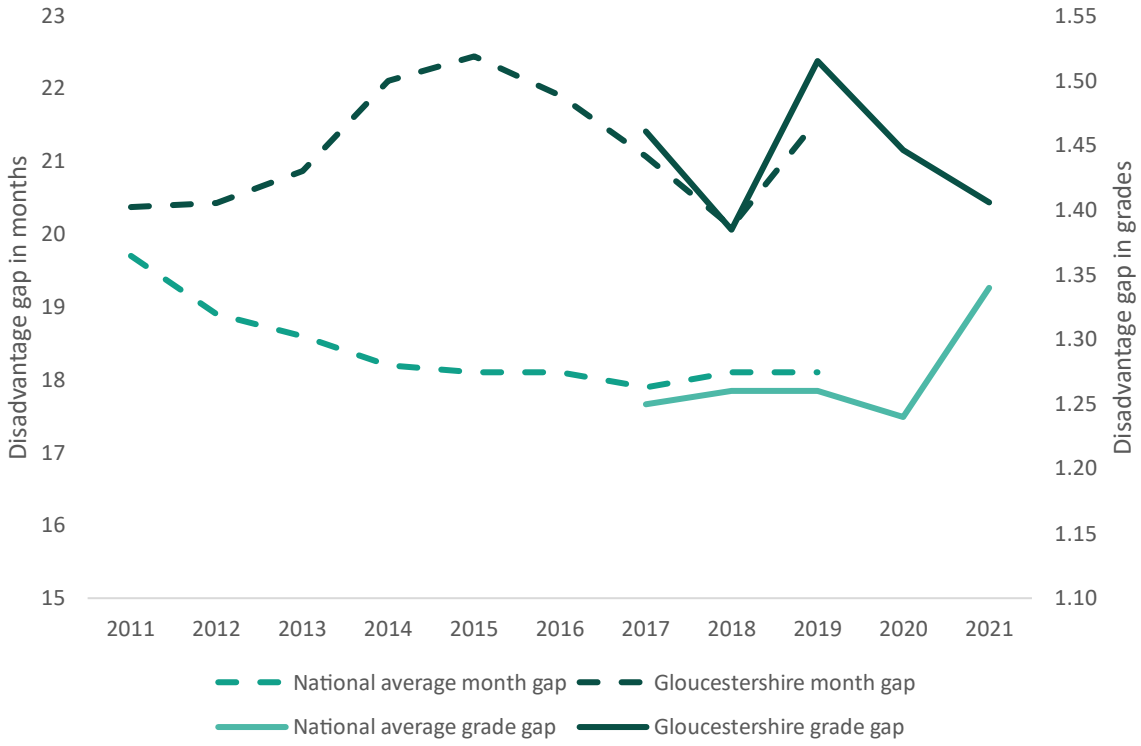
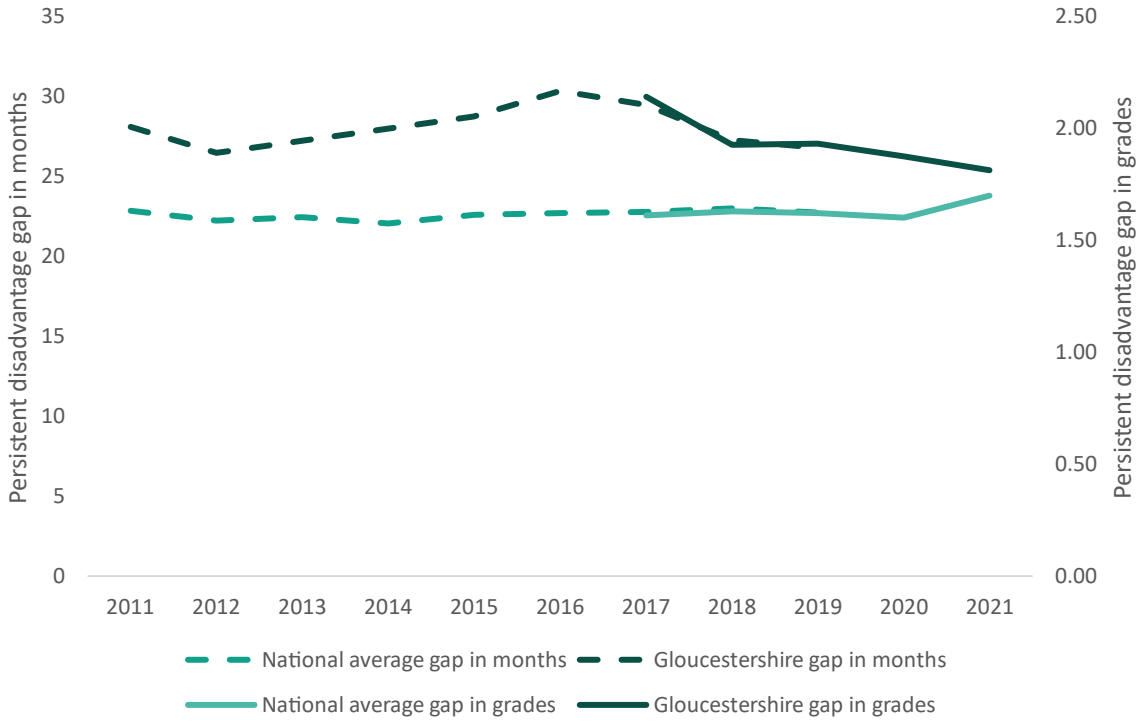


Figure 2.3.6 shows the persistent disadvantage gap at key stage 4 in Gloucestershire compared with the national gap. On average there are just under 300 persistently disadvantaged pupils in Gloucestershire in each year of this gap analysis. The national persistent disadvantage gap has remained mostly steady throughout the last decade, with the largest rise of 0.10 grades in 2021 to 1.70.

This compares to a persistent disadvantage grade gap in Gloucestershire of 1.81 in 2021. The difference between these gaps in Gloucestershire and England nationally is slightly larger than the difference for the headline gaps. It signifies that, on average in 2021, persistently disadvantaged pupils in Gloucestershire achieved 0.11 of a GCSE grade lower than persistently disadvantaged pupils nationally, and 1.81 grades lower than their non-disadvantaged peers in Gloucestershire.

Figure 2.3.6: Persistent disadvantage gap at end of KS4 for pupils in Gloucestershire and national average, 2011-2021



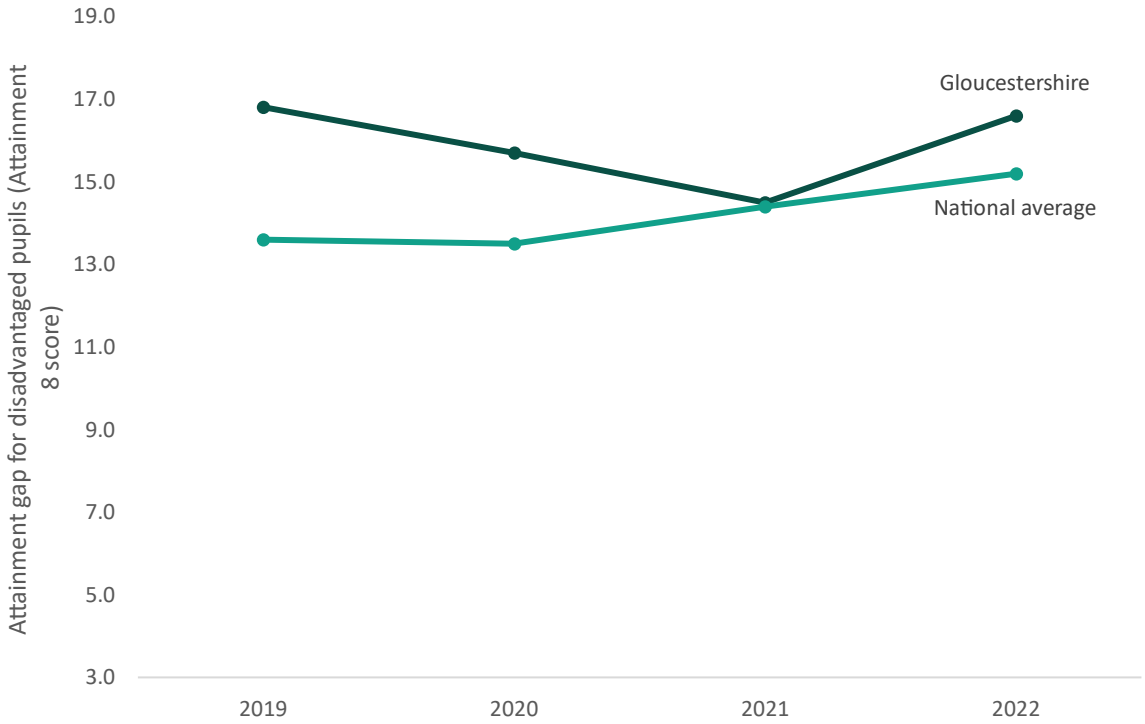
In summary, Gloucestershire has a slightly higher disadvantage gap than the national average at KS2 and KS4 and a similar gap to the national average in the early years. At all phases, Gloucestershire has a smaller proportion of disadvantaged pupils than England nationally.

Since 2019, Gloucestershire's KS4 disadvantage gap appeared to be narrowing in 2020 and 2021, a period where the national gap had been stable or growing. However it is hard to know whether this narrowing in the Gloucestershire gap reflects relative improvements in underlying learning among its disadvantaged pupils or differential effects of the grading processes.

To help our understanding of trends, we take a brief look at the latest DfE statistics for KS4 attainment in 2022, which saw the return of exam-based grades. Figure 2.3.7 shows the attainment gap (using the raw difference in average attainment 8 scores) between disadvantaged pupils in Gloucestershire and their non-disadvantaged peers nationally compared with the equivalent gap across England.

Between 2019 and 2021, the disadvantage gap in Gloucestershire was falling on this attainment 8 measure and broadly mirrors the trends shown for our English and maths grade gap measure in Figure 2.3.5. Using the DfE data, the disadvantage gap in Gloucestershire fell from 16.8 points in 2019 to 14.5 points in 2021 (very similar to the national gap of 14.4 points). However in 2022, both the Gloucestershire gap and the national gap widened, with the Gloucestershire gap widening slightly more to 16.6 points compared with 15.2 points nationally. Overall the pattern of Gloucestershire's gap narrowing during the pandemic and widening since means its gap is now similar to its 2019 level.

Figure 2.3.7: Attainment gap at the end of KS4 for disadvantaged pupils, Gloucestershire and national average, 2019-2022



Source: DfE, Key stage 4 attainment (2021/22)

Trends in 16-19 participation, destinations, attainment and disadvantage gaps

This section provides a statistical roundup of post-16 educational outcomes in Gloucestershire, compared with England and the South West for regional context. These measures are drawn from the most recently available publicly available figures, and cover:

- Participation of 16- and 17-year-olds in education, employment or training.
- Destinations of 16-to-18 students going into apprenticeships, education and employment destinations.
- Attainment at different qualification levels by the age of 19.
- An analysis of the 16-19 disadvantage gap.

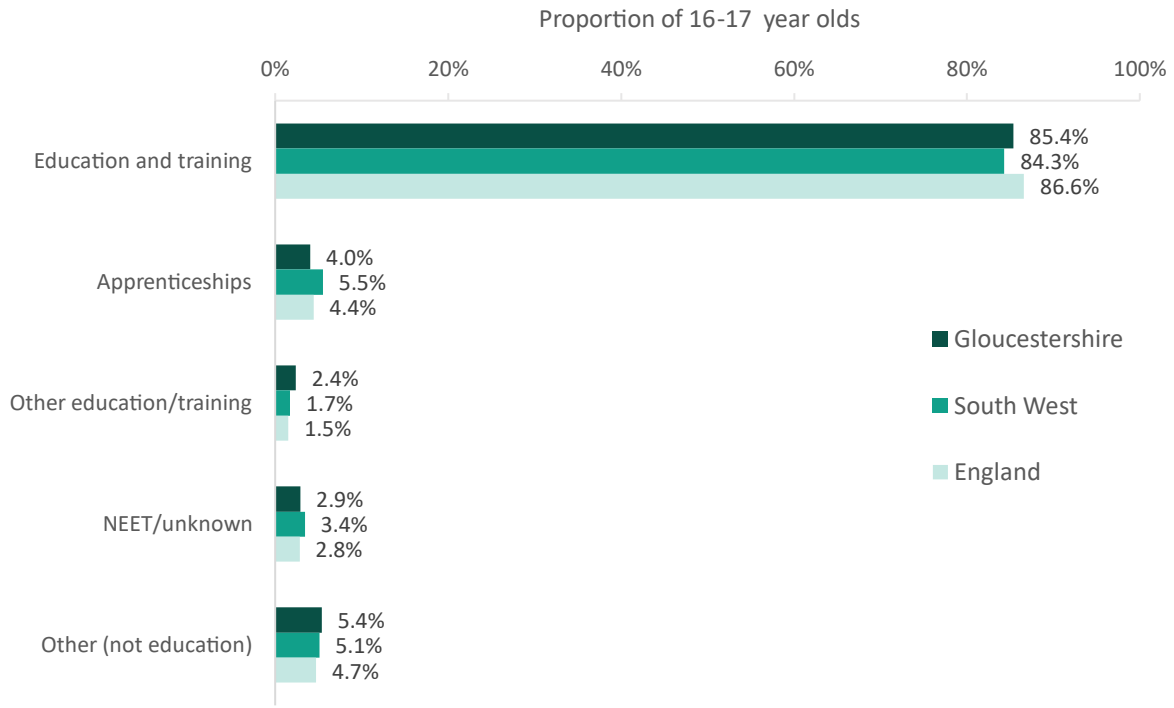
Participation of 16- and 17-year-olds in education, employment and training

Figure 3.1 shows the participation rates of 16- and 17-year-olds in Gloucestershire, showing where Gloucestershire pupils progress to after key stage 4. Data for 18-year-olds is only available at a national level, rather than for local authorities.

A slightly higher proportion of 16- and 17-year-olds in Gloucestershire participate in traditional education and training compared to the South West region as a whole, but at a lower rate than the national average. Participation in apprenticeships in Gloucestershire is at the same rate as the national average, although slightly lower than the South West as a whole.

For all other participation types, Gloucestershire and the South West have very similar participation rates to the national average.

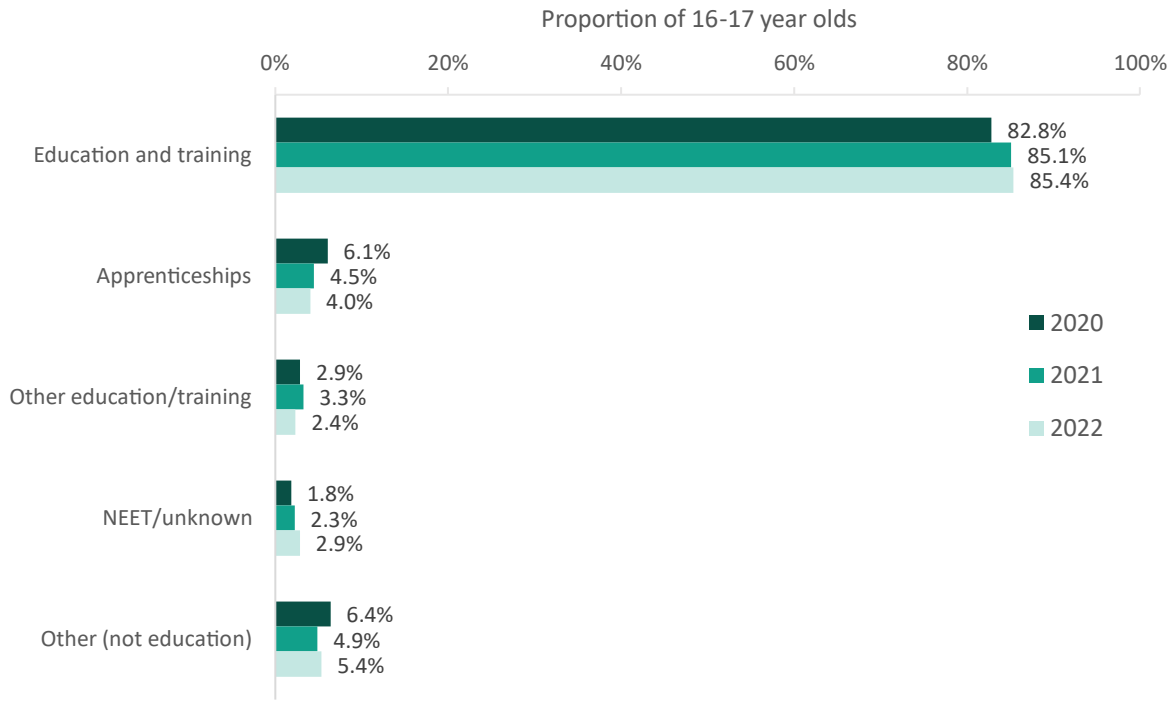
Figure 3.1: Participation of 16- and 17- year-olds in Gloucestershire, South West, and England, 2022



Source: DfE Participation in education, training and NEET age 16 to 17 by local authority (2021/22)

Figure 3.2 shows how the participation rates of 16- and 17-year-olds in Gloucestershire has changed over the last three years. Between 2020 and 2022, the proportion of 16- and 17-year-olds participating in traditional education and training has increased, while the proportion undertaking apprenticeships has decreased. This mirrors the national picture, suggesting this effect is not unique to Gloucestershire. There has been a small but steady increase in the proportion of young people not in education, employment, or training (NEET) and unknown participation, rising from 1.8 per cent in 2020 to 2.9 per cent in 2022, in contrast to England as a whole where this proportion has fallen slightly during this period.

Fig 3.2 Participation of 16- and 17-year-olds in Gloucestershire, 2020-2022

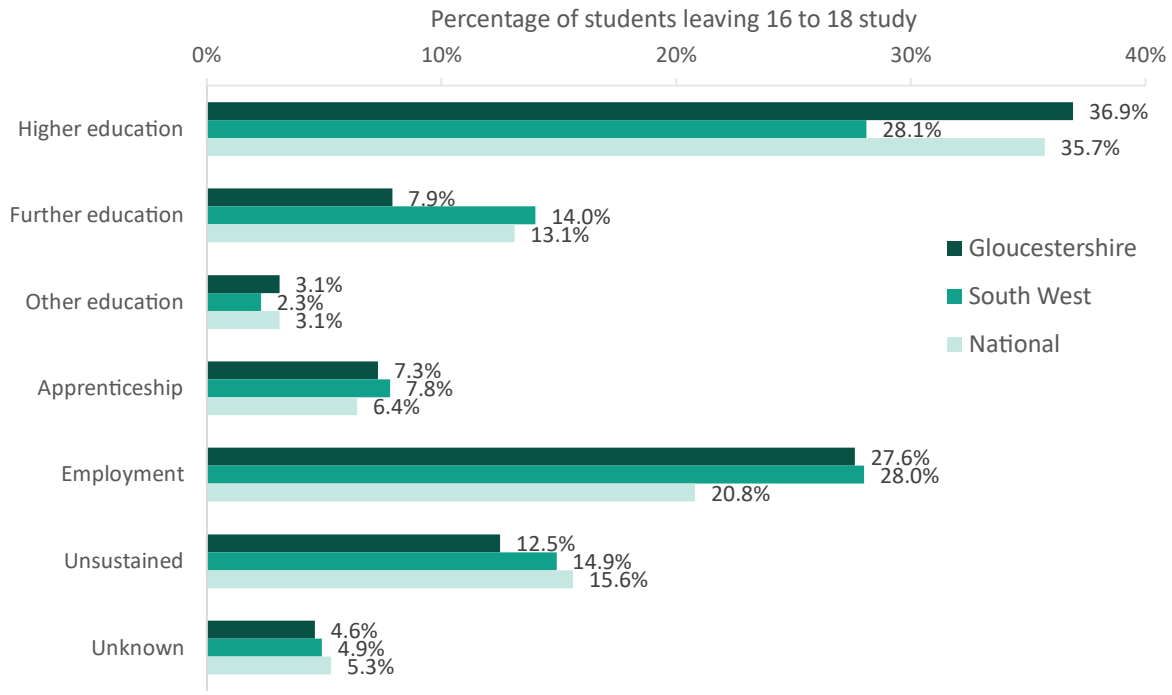


Source: DfE, Participation in education, training and NEET age 16 to 17 by local authority (2021/22)

Destinations of students leaving 16 to 18 study

Figure 3.3 shows the destinations of young people in Gloucestershire who have completed 16 to 18 study. A much higher proportion of Gloucestershire students go into higher education (37 per cent) than the average across the South West, though the proportion is similar to the average in England. By contrast, a smaller proportion of Gloucestershire students progress to further education (eight per cent) than the national average and the South West average. Overall a lower share of Gloucestershire students end up in unsustained destinations after leaving 16 to 18 study than in the South West or England as a whole, meaning they had participated in education, an apprenticeship or employment at some point during the academic year but did not complete the required six months of sustained participation or were known to be claiming out-of-work benefits at some point during the destination year.

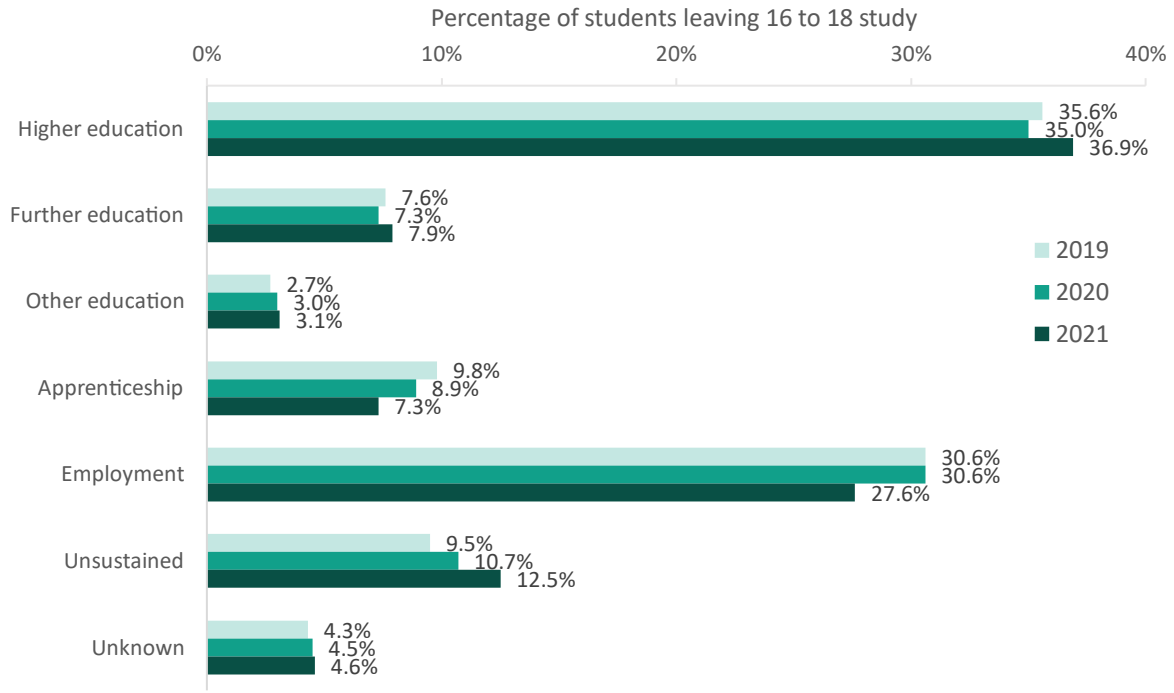
Figure 3.3: Destinations of students leaving 16 to 18 study, 2021



Source: DfE, 16-18 destination measures (2020/21)

Figure 3.4 shows how the destinations of young people leaving 16 to 18 study in Gloucestershire have changed over the past three years. In the academic year 2020/21, a smaller proportion of Gloucestershire students progressed to employment or apprenticeships, while a greater proportion progressed to university. But overall, a higher share of Gloucestershire students ended up in an unsustained destination after leaving 16 to 18 study in 2021 than in 2019 (13 per cent compared to 10 per cent).

Figure 3.4: Destination of students leaving 16 to 18 study in Gloucestershire, 2019-2021



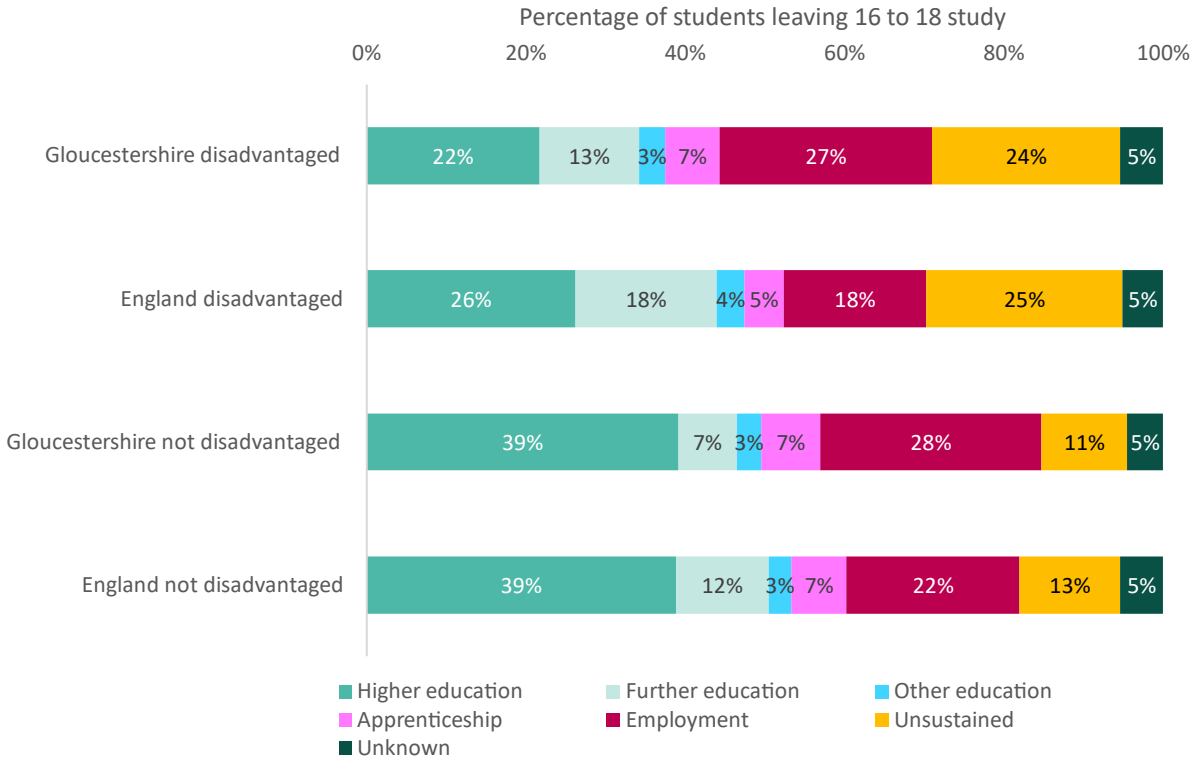
Source: DfE, 16-18 destination measures (2020/21)

Figure 3.5 shows how the destinations of young people leaving 16 to 18 study vary by disadvantage status. Comparing disadvantaged young people in Gloucestershire with their non-disadvantaged peers, a much smaller proportion of disadvantaged young people progress to higher education. A greater proportion of disadvantaged young people progress to further education, and a substantially higher proportion fall into the unsustained category.

Comparing disadvantaged young people in Gloucestershire to disadvantaged young people across England, a smaller proportion progress to university or further education, while a greater proportion progress to employment. However, the share of students in the unsustained category is the same for both – at roughly twice the rate for non-disadvantaged students - suggesting this is a national rather than local issue.

All in all, we observe fairly similar destination outcomes for non-disadvantaged young people in Gloucestershire as non-disadvantaged young people nationally. However, disadvantaged young people in Gloucestershire are notably less likely to progress to higher education than disadvantaged young people nationally, and are instead more likely to enter employment immediately after 16 to 18 study.

Figure 3.5: Destinations of students leaving 16 to 18 study by disadvantage status, Gloucestershire and England, 2021



Source: DfE, 16-18 destination measures (2020/21)

Attainment by age 19

Figure 3.6 looks at the proportion of 19-year-olds qualified at different levels. Gloucestershire is slightly above the national average at all levels in 2020/21, with the largest difference at Level 2 English and maths qualifications (73 per cent nationally, 74 per cent in Gloucestershire). Gloucestershire has remained within two percentage points of the national average at all levels in the last five years, except for in 2018/19, when Gloucestershire outperformed the national average in Level 2 English and maths by 3 percentage points (71 per cent nationally, 74 per cent in Gloucestershire).

Figure 3.6: Attainment levels of 19-year-olds in Gloucestershire and England, 2017 – 2022

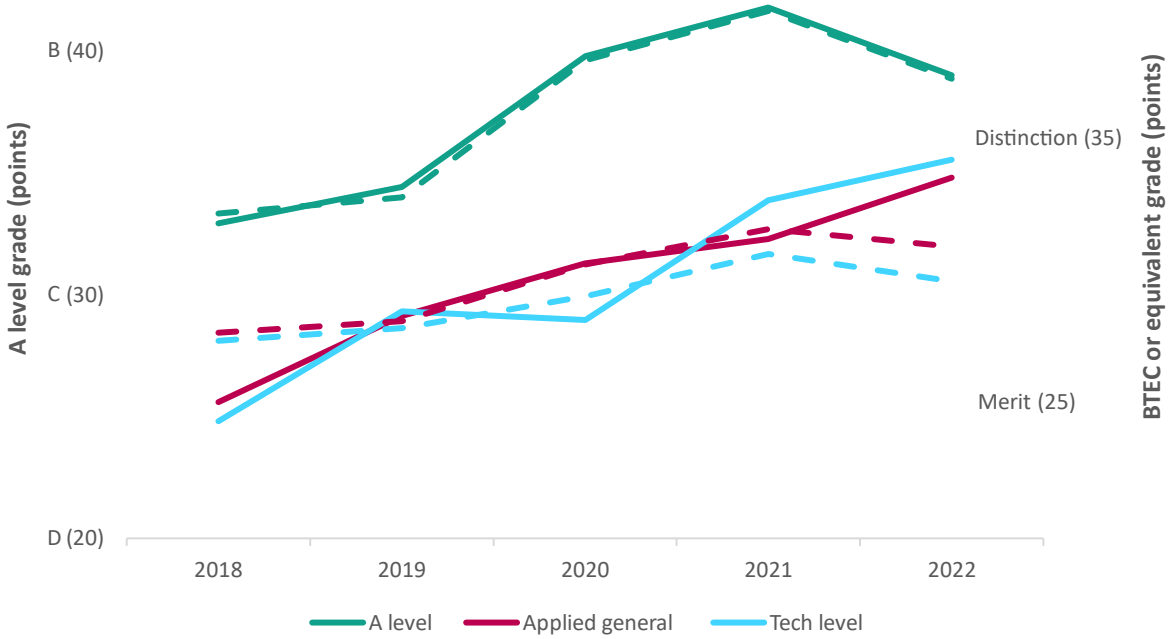
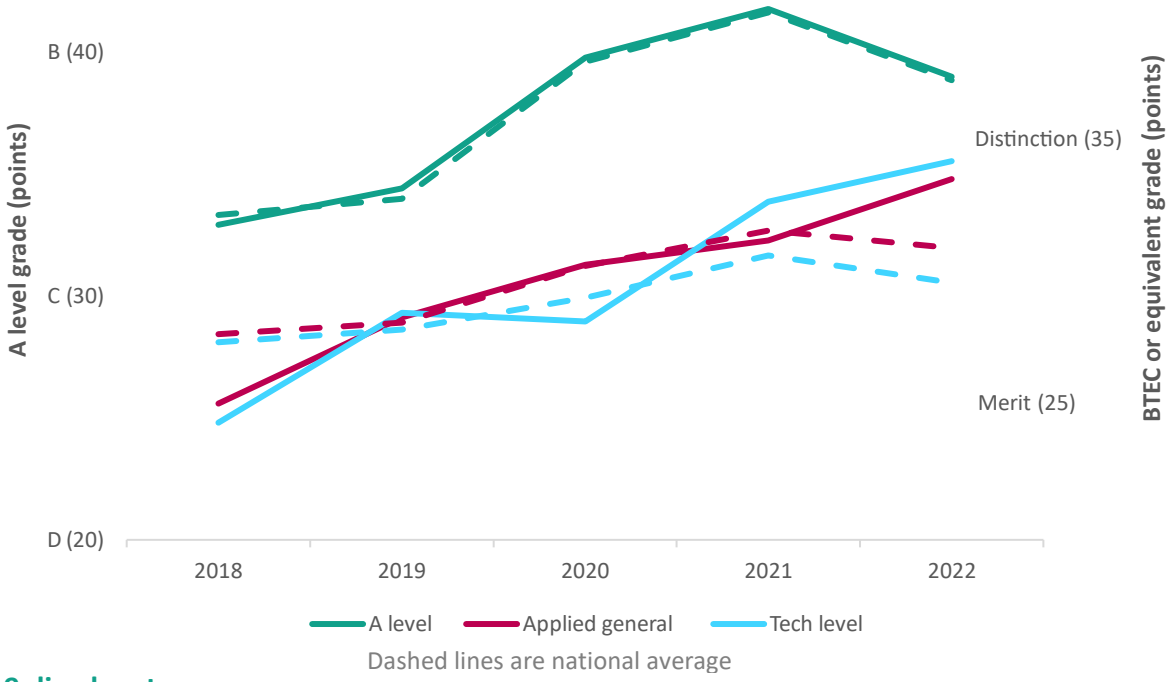


Figure 3.7 looks at the attainment of pupils completing Level 3 qualification in Gloucestershire, with the national average at each level represented by the dotted lines. In 2022, young people in Gloucestershire taking A levels typically achieved similar grades to their national counterparts (39.0 points in Gloucestershire, 38.9 points nationally – just below a 'B' in grades). Young people in Gloucestershire taking applied general qualifications or tech levels began to outperform the national average in 2020, before which Gloucestershire students performed similarly to the students nationally. Tech levels in particular is where Gloucester students outperform the most, achieving an average of half an A level grade equivalent above the national average (35.6 in Gloucestershire, 30.6 points nationally).

Figure 3.7: Average grades in level 3 qualifications in Gloucestershire and England, 2018-2022



16-19 disadvantage gaps

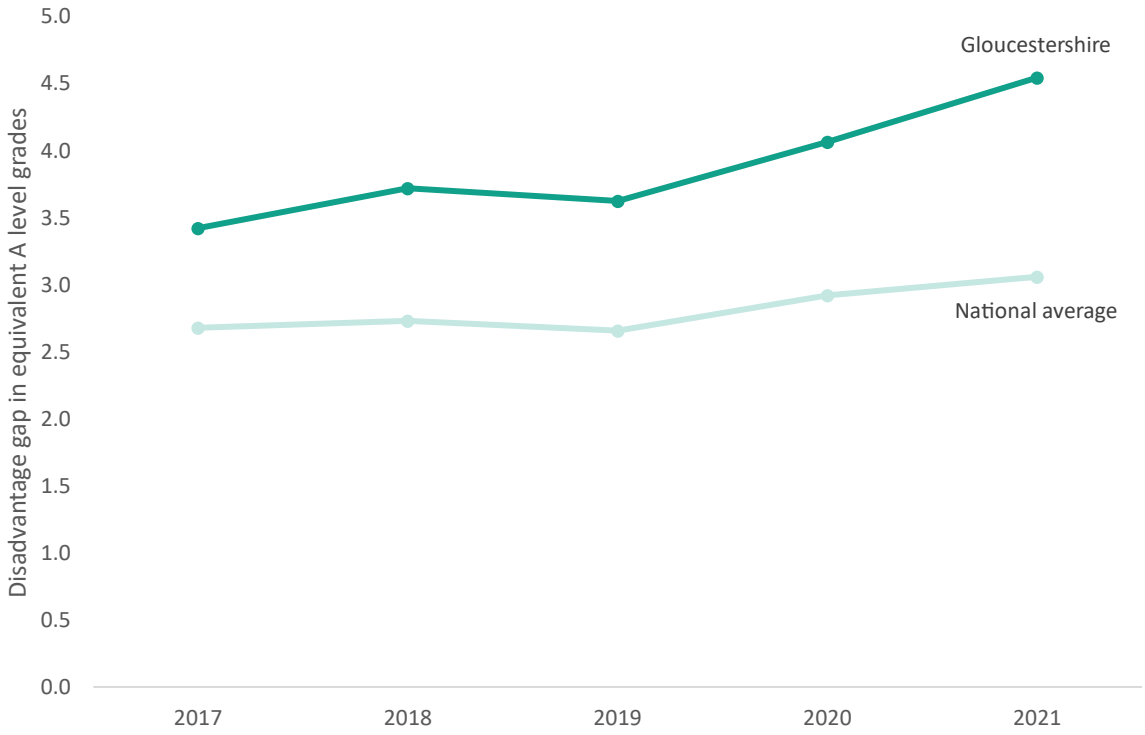
Using data from the National Pupil Database we create a measure of the disadvantage gap for 16-19 education. The methodology is different to that used to determine disadvantage gaps for younger pupils such that this measure is not directly comparable with other disadvantage gap measures. Instead of reporting a disadvantage gap in terms of months of progress, for the 16-19 phase we report the gap as the average difference in equivalised A level grades for disadvantaged and non-disadvantaged pupils. As there is no formal measure of pupil disadvantage beyond 16 we count as disadvantaged those pupils known to be eligible for and claiming free school meals in any of the six years prior to finishing key stage 4. This means there is a slight lag in identifying pupils as disadvantaged at this educational stage.

For more details on the methodology used see the EPI report 'COVID-19 and Disadvantage Gaps in England 2021'[6].

Figure 3.8 shows how the 16-19 disadvantage gap has changed in Gloucestershire over the last five years compared to England as a whole. Gloucestershire has an increasingly larger gap than the national average across students' best three qualifications, rising to its highest level in 2021 at 4.5 grades compared to the national average of 3.1.

[6]Tuckett, S. *et al*. 'COVID-19 and Disadvantage Gaps in England 2021, EPI, December 2022.

Figure 3.8: 16-19 disadvantage gap, Gloucestershire and national average, 2017-2021



Exam results for 16–19-year-olds were similarly disrupted in 2020 and 2021 as they were for GCSEs. Overall, between 2019 and 2021, grades increased for most institution types and student characteristic groups, but not all benefited from increased grades to the same extent. In particular, students at colleges (excluding sixth form colleges) received very similar grades to the previous cohort whilst those at other institution types saw an increase. Differences in outcomes in Gloucestershire therefore may be driven by a different mix in institution types compared with England and further analysis would be required to determine this. The key conclusion that we can draw from Figure 3.8 is that the 16-19 disadvantage gap is consistently higher in Gloucestershire than in England nationally, and that the Gloucestershire gap follows the overall trends of the national gap.

Geographic comparisons within Gloucestershire

In this section we look at how performance on the key measures of attainment and the disadvantage gap varies across the six parliamentary constituencies in Gloucestershire. We do this for early years, primary and secondary phases.

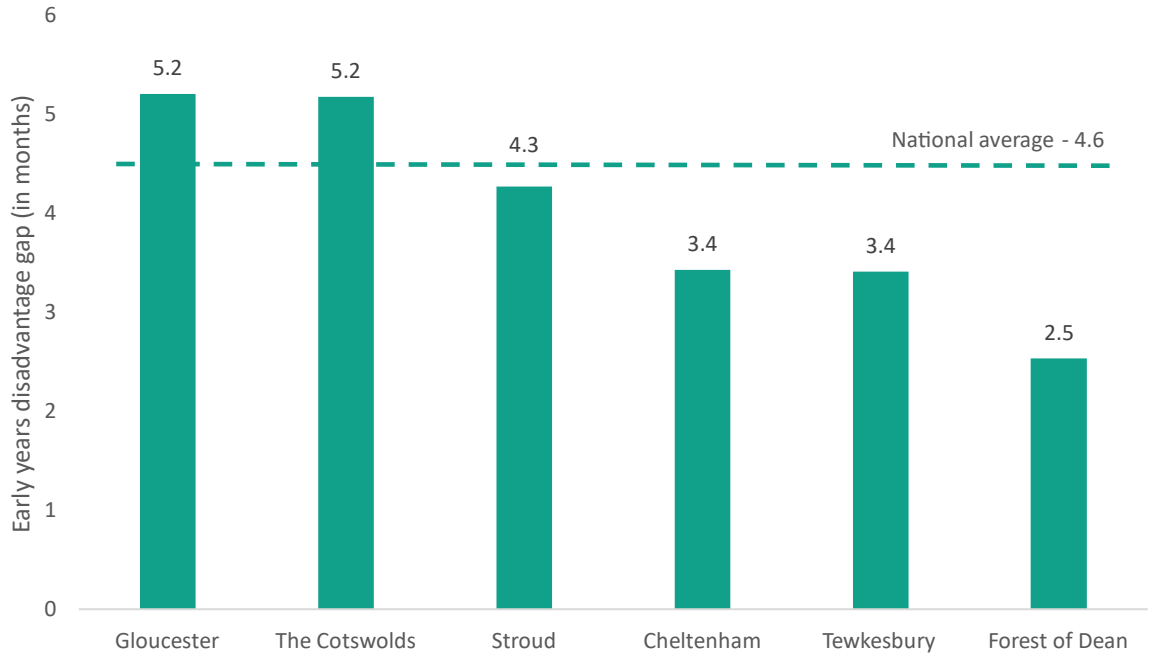
As for Gloucestershire-level gaps, parliamentary constituency gaps compare attainment of local disadvantaged pupils with the attainment of all disadvantaged pupils nationally. We do this rather than compare with non-disadvantaged pupils within the area to allow for a consistent reference point. This avoids representing disadvantage gaps as being especially large in certain geographic areas based on very high attainment of non-disadvantaged children in the area, rather than low attainment by disadvantaged children.

These analyses look at the postcode in which a pupil attends school, rather than a pupil's home postcode. For example, a pupil living in Tewkesbury but attending school in Cheltenham would be shown in the Cheltenham figures.

Early years

Figure 4.1 shows the size of the early years disadvantage gap in the parliamentary constituencies of Gloucestershire. The national average disadvantage gap (dashed line on chart) is higher than the Gloucestershire average at 4.2 months. Gaps in the parliamentary constituencies of Gloucestershire vary significantly, with the smallest gap in Forest of Dean at 2.5 months, and the largest gap in Gloucester and The Cotswolds at 5.2 months. All other constituencies have gaps lower than the national average.

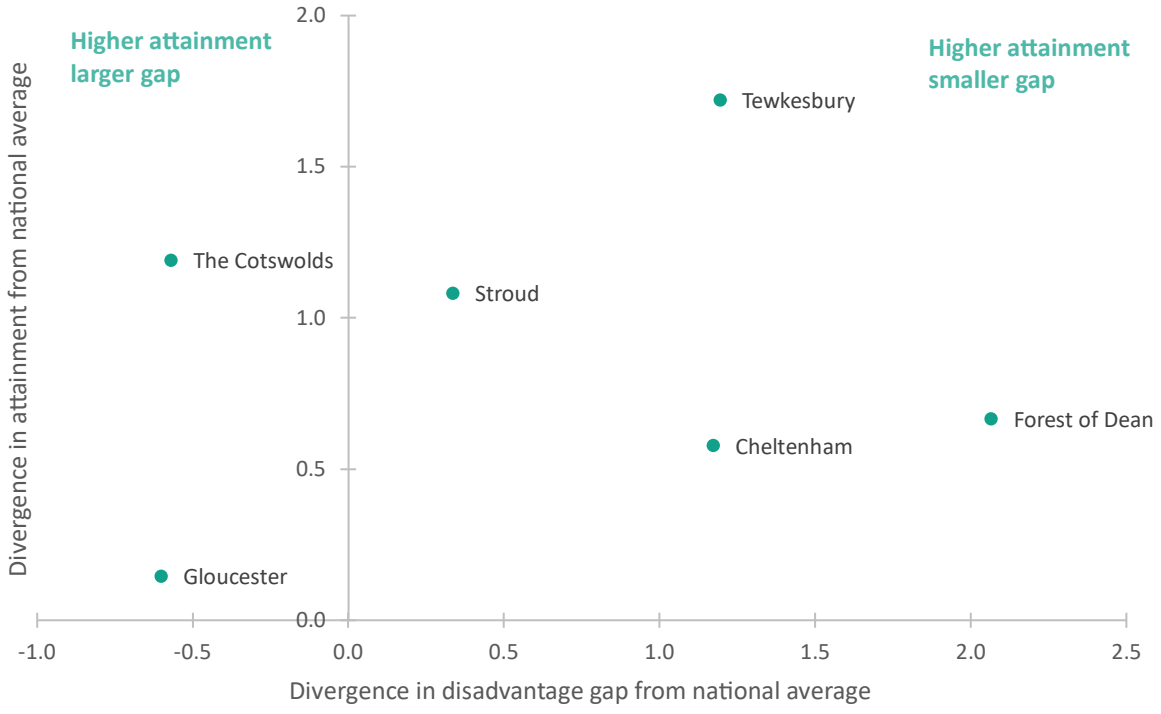
Figure 4.1: Early years disadvantage gap by parliamentary constituency, 2019



Note on interpreting the scatter plots: The next figure (Figure 4.2) and similar figures for the primary and secondary phases (Figures 4.4 and 4.6) plot the disadvantage gap against average attainment for each parliamentary constituency. We do this by finding the difference between the disadvantage gap in a given constituency and the national average, and the difference between average attainment in that constituency and the national average, and plotting the differences on a scatter plot. If a constituency had the same disadvantage gap and attainment as the national average, it would be located at the centre of both axes. Zero does not indicate zero gap or zero attainment: it indicates zero difference to the national average, which is nonetheless a notable disadvantage gap. Negative values mean a particular constituency is doing worse than the national average, regardless of whether the measure is the disadvantage gap (where lower is better) or average attainment (where higher is better).

For early years (shown in Figure 4.2), all constituencies have higher average attainment than the national average of 34.6 total points in the EYFSP framework. Tewkesbury was the best performing constituency, with an average total score 1.7 points higher than the national average. Gloucester has the lowest average attainment in Gloucestershire but is still 0.1 points higher than the national average. As shown earlier, disadvantage gaps in the parliamentary constituencies of Gloucestershire vary significantly, with gaps both above and below the national average.

Figure 4.2: Divergence from national averages for the early years disadvantage gap and EYFS profile score by parliamentary constituency, 2019



Key stage 2

Figure 4.3 shows the primary disadvantage gap for parliamentary constituencies in Gloucestershire. The national average disadvantage gap is 9.3 months while the Gloucestershire average is 10.9 months in 2018/19.

Unlike the gap for early years pupils, Stroud is the only constituency with a smaller disadvantage gap than the national average at 7.7 months. Forest of Dean – which has the smallest gap at early years – has the largest gap at the end of primary at 13.8 months, with Cheltenham close behind at 12.9 months.

Figure 4.3: Primary disadvantage gap by parliamentary constituency, 2019

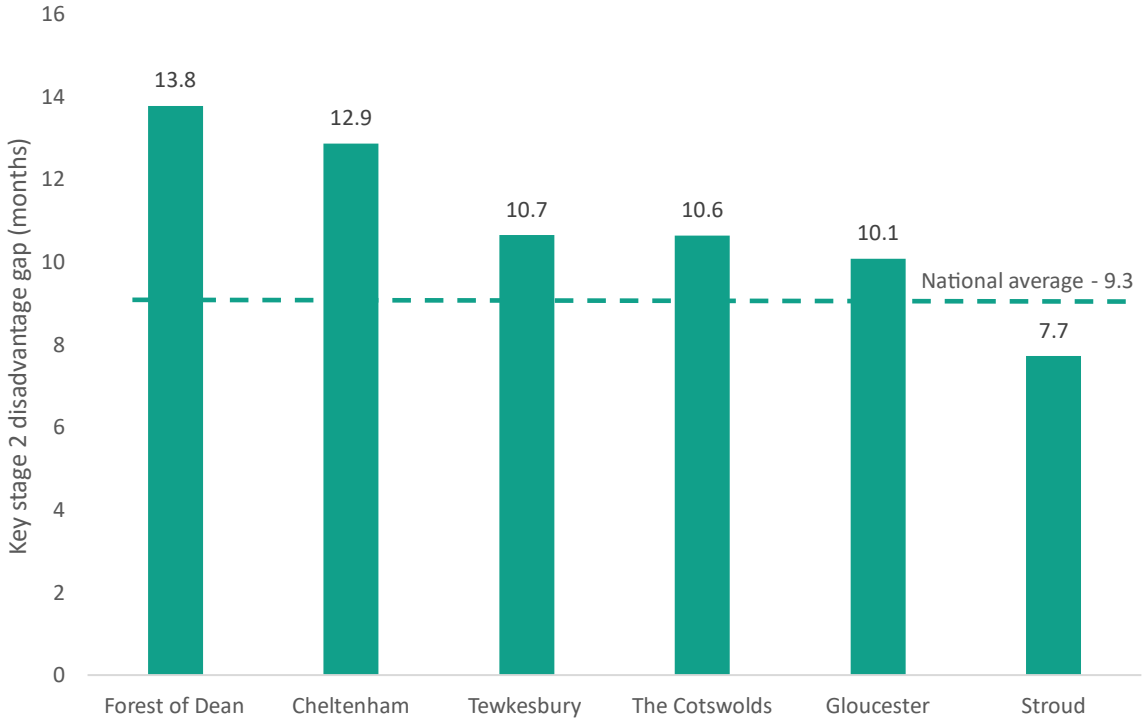
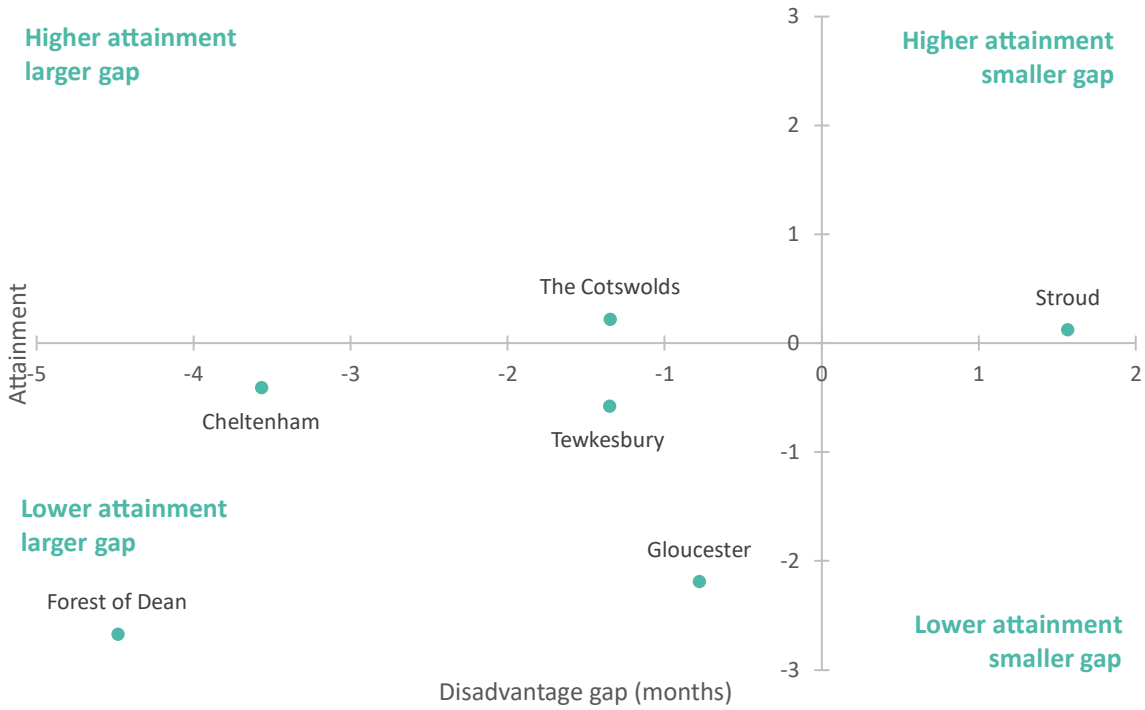


Figure 4.4 plots the key stage 2 disadvantage gap against average attainment. As for early years, the difference in disadvantage gap has been transformed to a negative number, with a positive number representing a smaller gap than the national average, and a negative number representing a larger gap.

Forest of Dean performs worse than the other Gloucestershire constituencies on both attainment and disadvantage gap measures. Only Stroud and The Cotswolds outperform the national average in attainment, while all other constituencies perform worse than the national average in both attainment and the disadvantage gap.

Figure 4.4: Divergence from national averages for primary disadvantage gap and KS2 assessment scaled score by parliamentary constituency, 2019



Key stage 4

At key stage 4 we use our GCSE grade gap (rather than months gap) measure as we present the latest data for 2021 when grades were awarded on the basis of teacher assessments rather than exams.

The national average disadvantage gap by the end of secondary school is 1.34 grades in 2020/21, and for Gloucestershire as a whole the average is 1.41 grades.

Turning to parliamentary constituencies, Stroud and Tewkesbury are the only constituencies with smaller disadvantage gaps than the national average at 1.19 and 1.20 grades respectively, with Stroud being the only constituency that has a smaller gap than the national average across the three key stages. Gloucester – as at the early years stage – has the highest gap (at 1.64 grades), while Cheltenham and Forest of Dean both have very slightly larger gaps than the national average.

Figure 4.5: Secondary disadvantage gap by parliamentary constituency, 2021

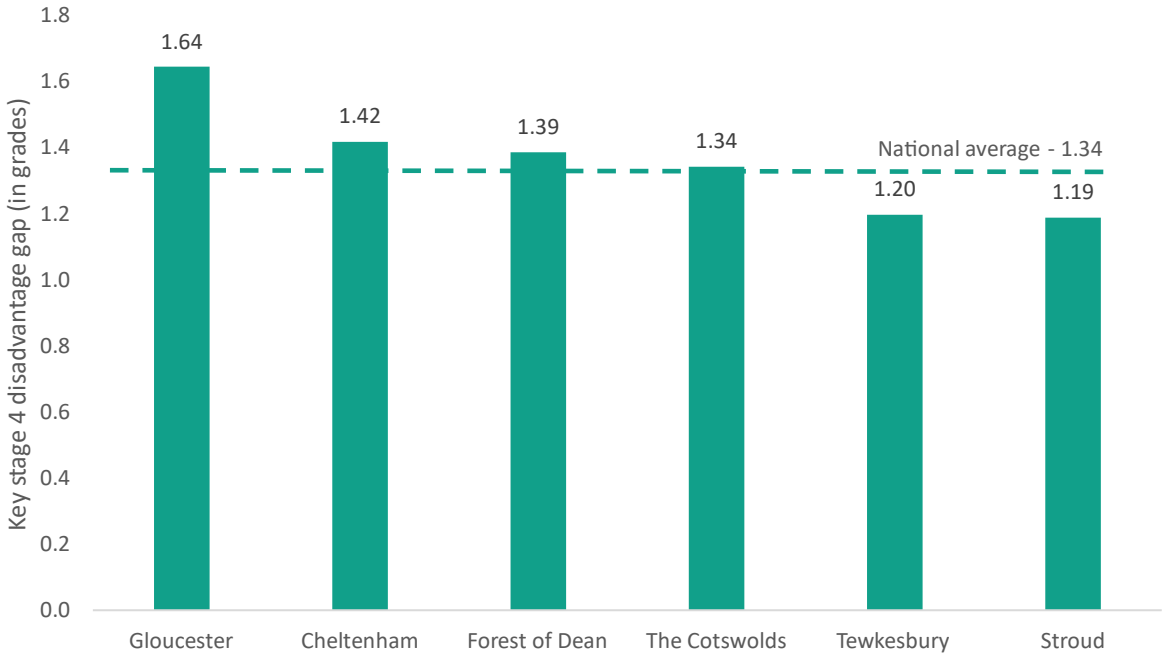
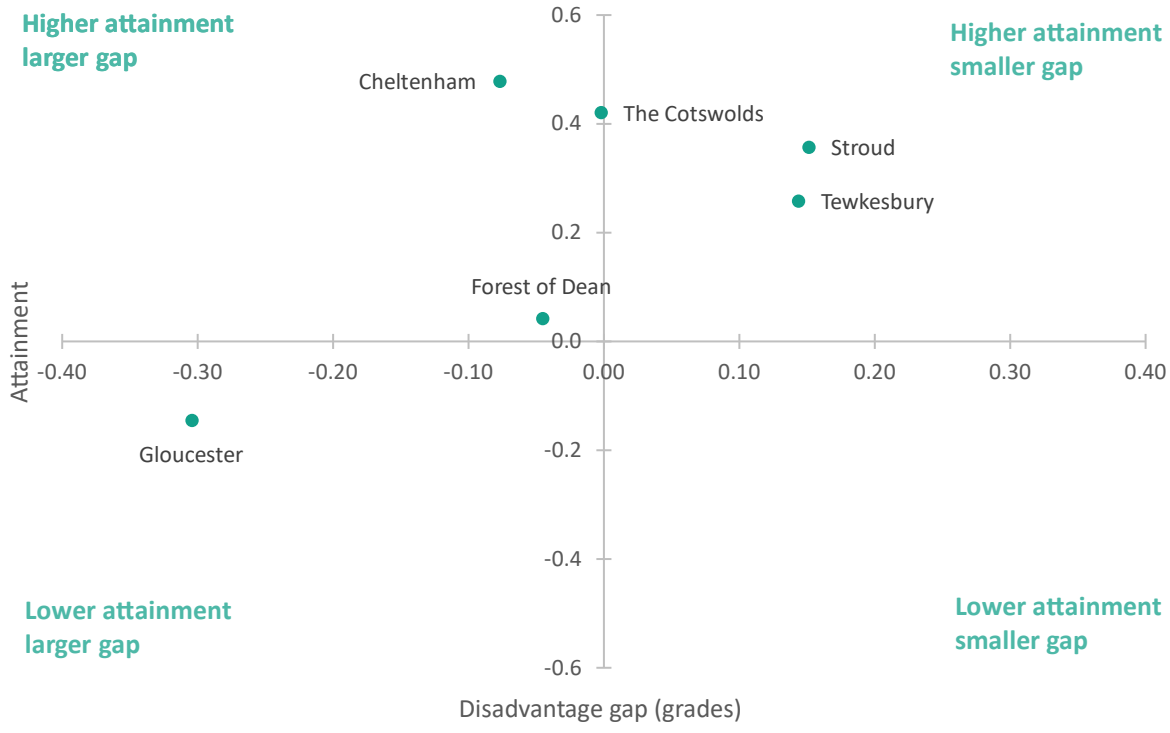


Figure 4.6 plots the disadvantage gap against average attainment for key stage 4. Gloucester is the only constituency to have both lower attainment and a larger gap than the national average. While Cheltenham has the highest attainment in the local authority, it combines this with an above-average gap; this contrasts with Stroud and Tewkesbury which outperform the national average on both measures.

Figure 4.6: Divergence from national averages for secondary disadvantage gap and GCSE attainment in maths and English by parliamentary constituency, 2019



Geographic comparisons beyond Gloucestershire

Method

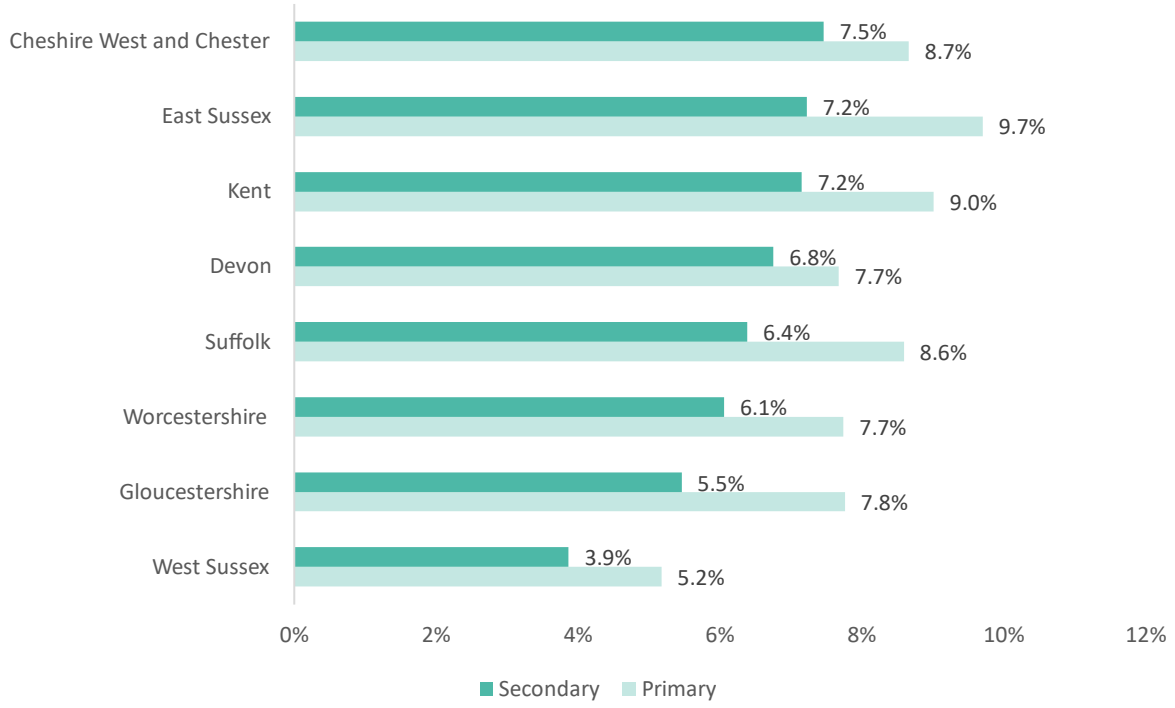
We have identified seven local authorities to use as comparators in this analysis: Kent, West Sussex, East Sussex, Devon, Worcestershire, Cheshire West and Chester, and Suffolk. As described below, these local authorities have been selected due to their similarity to Gloucestershire in key socio-economic areas affecting education. Of particular note is Kent, which unlike the other comparators, operates a selective admissions system at secondary, while Gloucestershire has a higher-than-average proportion of grammar schools.

Selection of the comparators was based on the following characteristics:

- The share of persistently disadvantaged young people at the end of primary school in 2019.
- The share of persistently disadvantaged young people at the end of secondary school in 2019.
- The dominant ONS neighbourhood characteristics or 'pen portraits'.

The percentage of children who are persistently disadvantaged in Gloucestershire was 7.8 per cent at primary school and 5.5 per cent at secondary school in 2019. All comparators selected were within 2 percentage points of Gloucestershire with the exception of West Sussex. The proportion of persistently disadvantaged pupils in our selected comparators is summarised in Figure 5.1. On average, we are comparing Gloucestershire to a relatively more disadvantaged set of comparators, notably at primary-age.

Figure 5.1: Percentage of pupils who are persistently disadvantaged in Gloucestershire and selected comparators, 2019



Secondly, we use pen portraits to develop a more nuanced picture of the characteristics of pupils in local authorities. Pen portraits are the residential-based area classification produced by the Office of

National Statistics (ONS). The ONS has placed each of the 391 UK local authority districts into clusters based on their 2011 census characteristics. Similar local authorities are grouped together, and more detailed clusters are identified at LSOA-level (Lower Super Output Area, a geographic area generated to be as consistent in population size as possible, with the minimum population being 1,000). We use these lower-level LSOA clusters (which are based on the five main census dimensions: demographics, household composition, housing tenure, socio-economic status, and employment) to classify the dominant neighbourhood types in Gloucestershire.

At LSOA-level, the dominant neighbourhood types in Gloucestershire are prospering countryside life (13 per cent), cosmopolitan student neighbourhoods (9 per cent) and ageing urban communities (9 per cent).

The share of KS4 pupils who are disadvantaged in prosperous countryside neighbourhoods is 4 per cent. People living in these neighbourhoods are more likely to have a higher level of qualifications, and nearly four-fifths of households own or have shared ownership of their property.

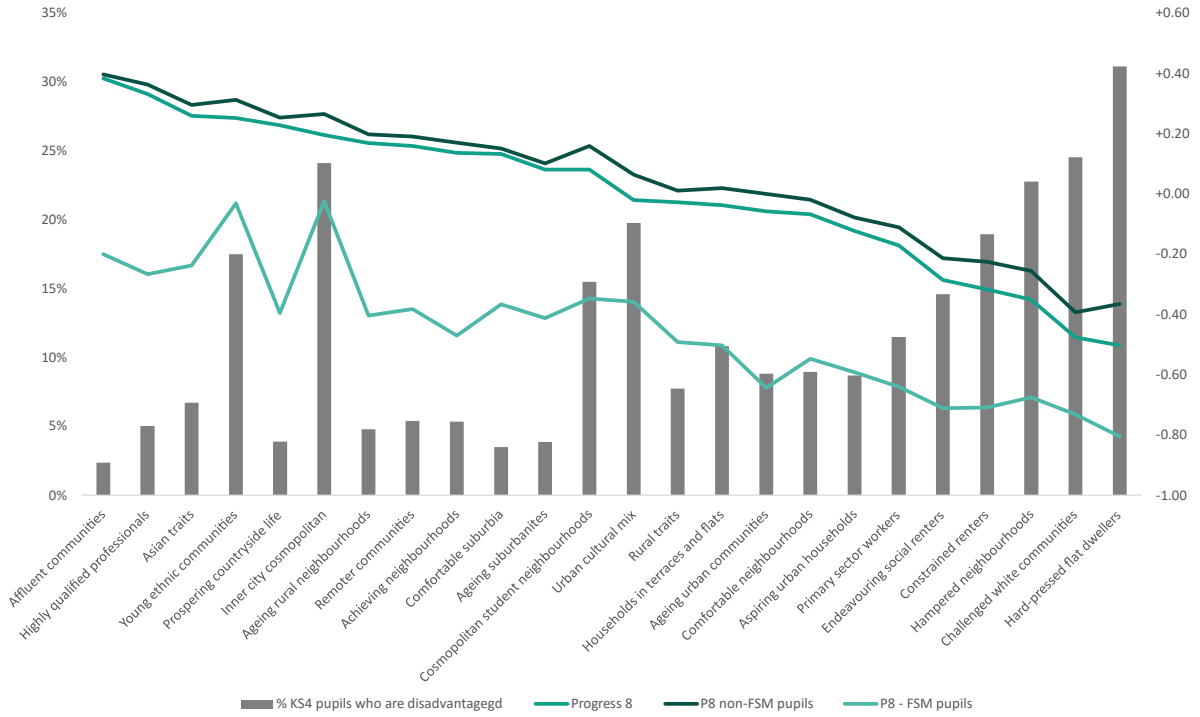
By contrast, 15 per cent of KS4 pupils living in cosmopolitan student neighbourhoods are disadvantaged. The median age in these neighbourhoods is just 26 years old, with an above average ethnic mix and a below average proportion of UK and Irish-born residents. Qualification levels are higher than the national average.

Finally, 9 per cent of KS4 pupils living in ageing urban communities are disadvantaged. This group has one of the highest median ages at 46 years old, with a higher proportion of residents living in shared or communal establishments. Educational qualifications are generally high.

Analysis of educational outcomes across these neighbourhood types finds very different outcomes for disadvantaged and non-disadvantaged pupils depending on neighbourhood type. Furthermore, we find that differences are not fully explained by the proportion of pupils eligible for FSM (Figure 5.2) Other neighbourhood characteristics also seem to have an effect.[7]

[7] EPI analysis of national pupil database 2018, linked to LSOA-level neighbourhood type by LSOA of pupil home postcode.

Figure 5.2: Distribution of disadvantage and average Progress 8 scores by area classification



Source: EPI local authority analysis: Report for Essex Education Task Force (2022)

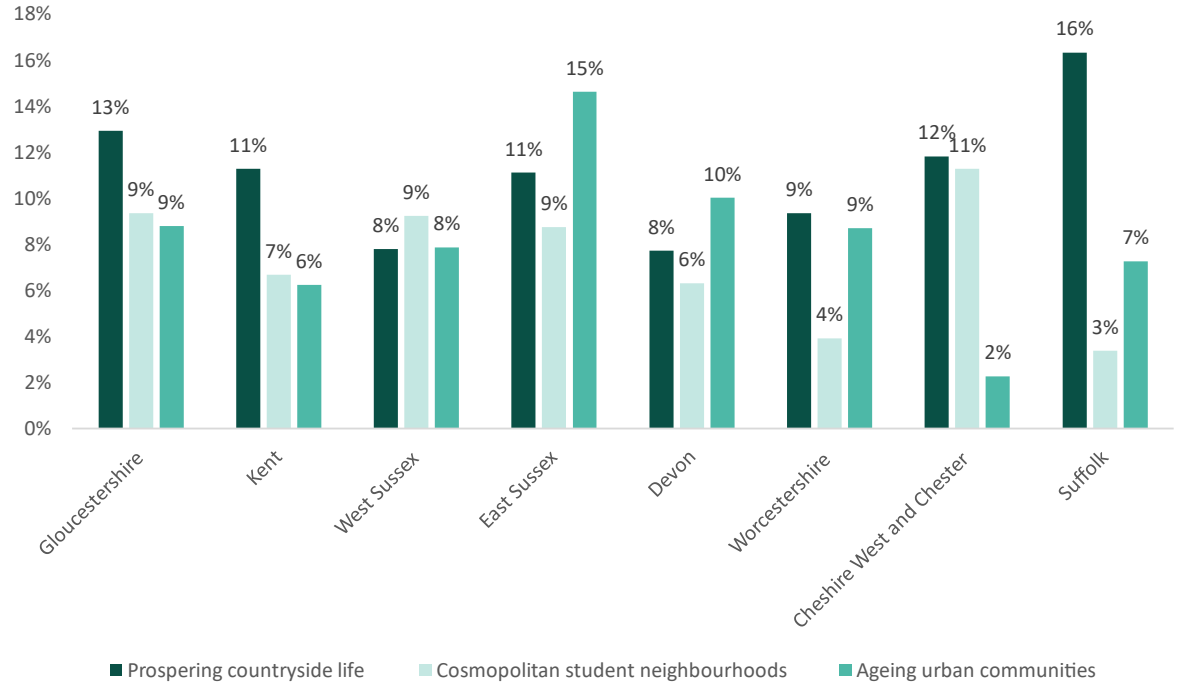
Figure 5.2 demonstrates that educational outcomes (Progress 8, a measure that indicates how much pupils have progressed in secondary school compared to the expected level of improvement) interact differently with poverty levels (KS4 pupils who are disadvantaged) in different neighbourhood types. For example, hampered neighbourhoods have high levels of poverty (23 per cent of KS4 pupils who live in hampered neighbourhoods are disadvantaged) and have low educational outcomes, particularly for disadvantaged pupils: the average progress 8 score for disadvantaged pupils who live in hampered neighbourhoods is -0.67. By comparison, inner city cosmopolitan areas (which are located almost entirely in London) have similar levels of poverty to hampered neighbourhoods (24 per cent) but disadvantaged pupils in these similarly impoverished inner city cosmopolitan areas make significantly more progress (-0.02) than their non-disadvantaged peers who live in hampered neighbourhoods (-0.21).

We conclude from this that it is sensible to compare Gloucestershire with local authorities which have a similar social mix of neighbourhoods, over and above ensuring they have similar levels of disadvantage.

The local authorities selected as comparators are the most similar LAs to Gloucestershire with regards to the proportions of the three dominant neighbourhood types in Gloucestershire at LSOA-level.

This neighbourhood similarity, as shown in Figure 5.3, shows the proportions of the three dominant neighbourhood types in Gloucestershire for each comparator. All comparators selected have fairly similar shares (within seven percentage points) across the three dominant neighbourhood types.

Figure 5.3: Neighbourhood classification across Gloucestershire and selected comparators, by proportions of LSOAs in each LA with selected neighbourhood classification



Early years

Figure 5.4 shows how the early years disadvantage gap varies across the comparators in 2019. Five comparators have larger gaps than Gloucestershire, with three of these larger than the national average. Just two comparators have a smaller gap than Gloucestershire, most notably East Sussex with a gap of just 1.5 months, despite having the largest proportion of disadvantaged pupils at primary and the second largest proportion at secondary.

Figure 5.4: Early years disadvantage gap in Gloucestershire and selected comparators, 2019

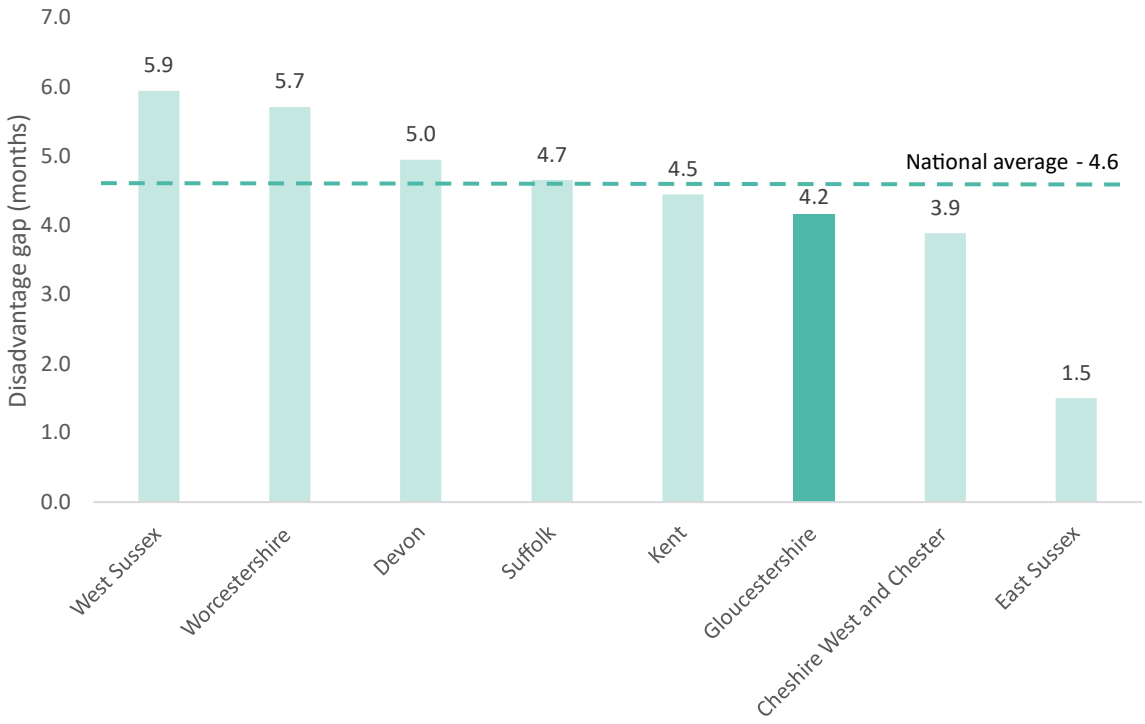
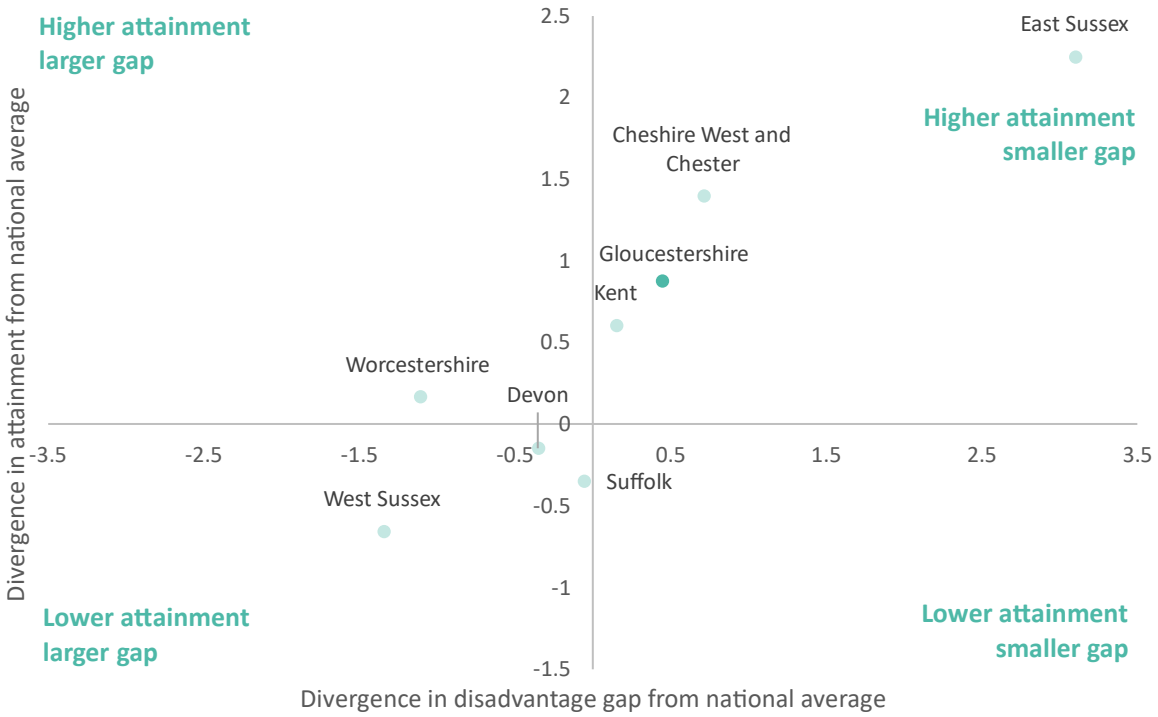


Figure 5.5 shows the early years disadvantage gap plotted against early years attainment for the selected comparators in comparison to the national average, as for parliamentary constituencies in Gloucestershire earlier in the report (see note 'Interpreting the scatter plots' in previous section). Cheshire West and Chester and East Sussex both outperform Gloucestershire for early years, having a smaller disadvantage gap and higher average attainment. Nevertheless, Gloucestershire has higher than average attainment in early years and a slightly smaller than average disadvantage gap.

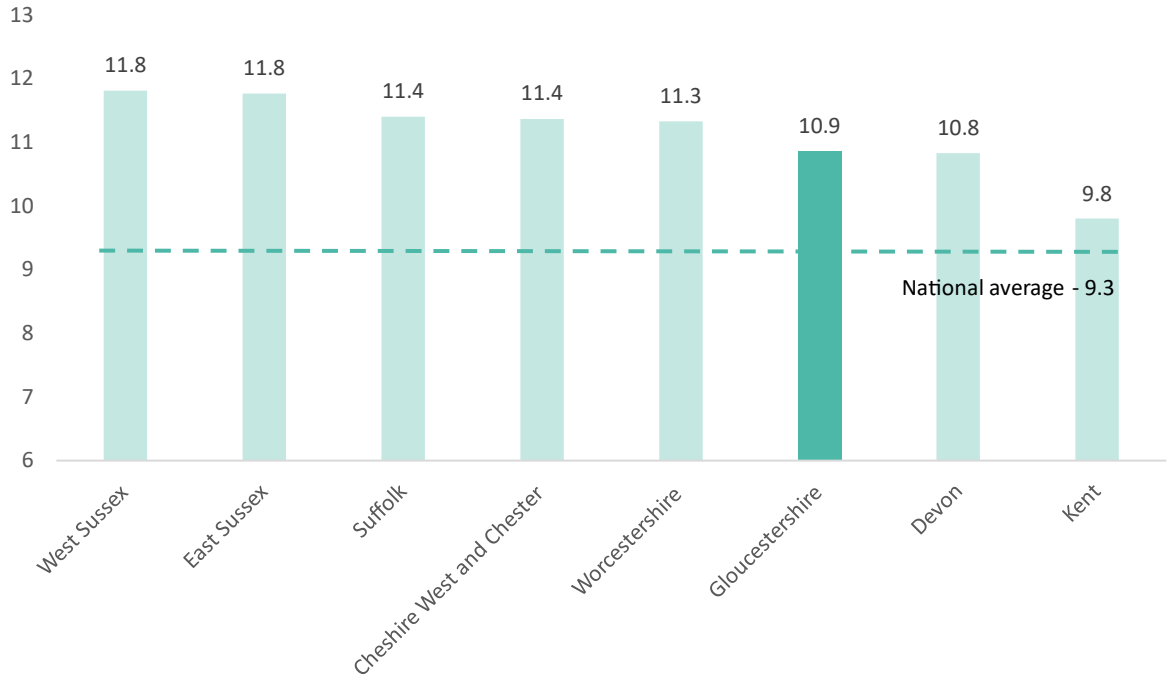
Figure 5.5: Divergence from national averages for the early years disadvantage gap and EYFS profile score in Gloucestershire and selected comparators, 2019



Key stage 2

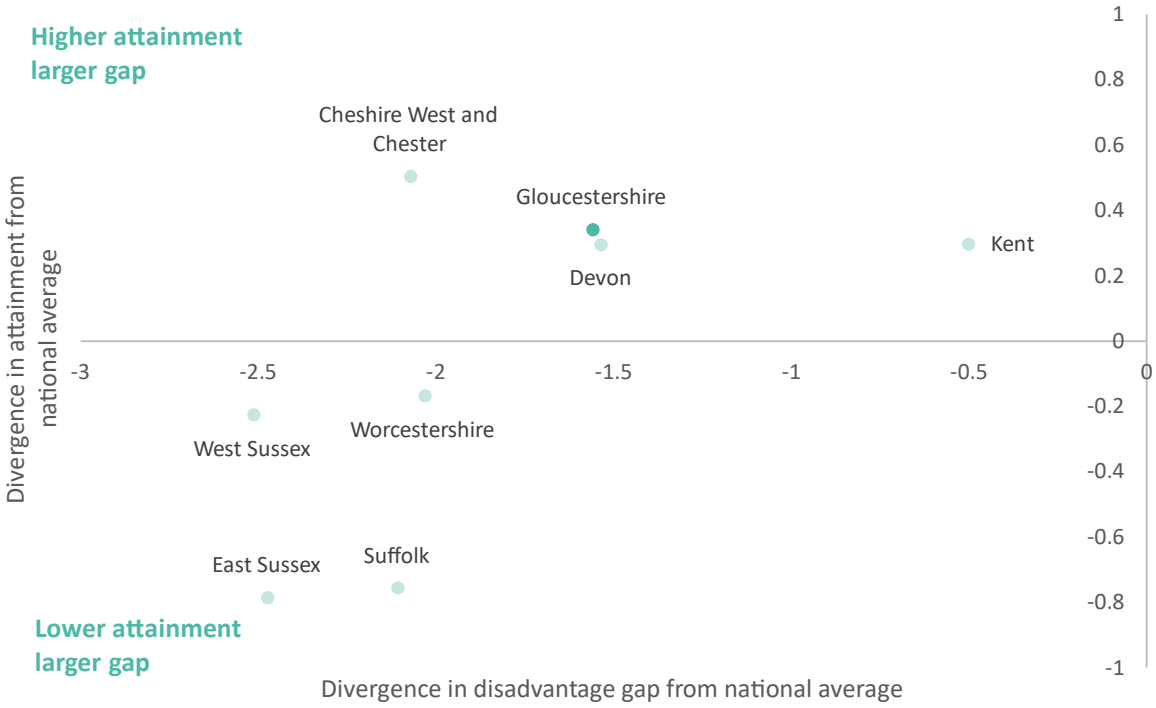
Figure 5.6 shows the same analysis but for the primary disadvantage gap. In contrast to the gap at early years, Gloucestershire's KS2 gap is above the national average, as are all of the comparators (10.9 in Gloucestershire, 9.3 nationally). Devon has a similar gap to Gloucestershire at 10.8 months, whilst Kent's smaller gap is closer to the national average at 9.8 months.

Figure 5.6: KS2 disadvantage gap in Gloucestershire and selected comparators, 2019



Turning to attainment, we can see in Figure 5.7 that just four of the comparators have higher attainment at KS2 than the national average and this includes Gloucestershire. Only Cheshire West and Cheshire outperforms Gloucestershire in attainment, but has a larger disadvantage gap. And as we saw in Figure 5.6, none of the selected local areas have disadvantage gaps that are narrower than the national average regardless of their overall attainment levels at KS2.

Figure 5.7: Divergence from national averages for the KS2 disadvantage gap and average scaled score in reading and maths in Gloucestershire and selected comparators, 2019

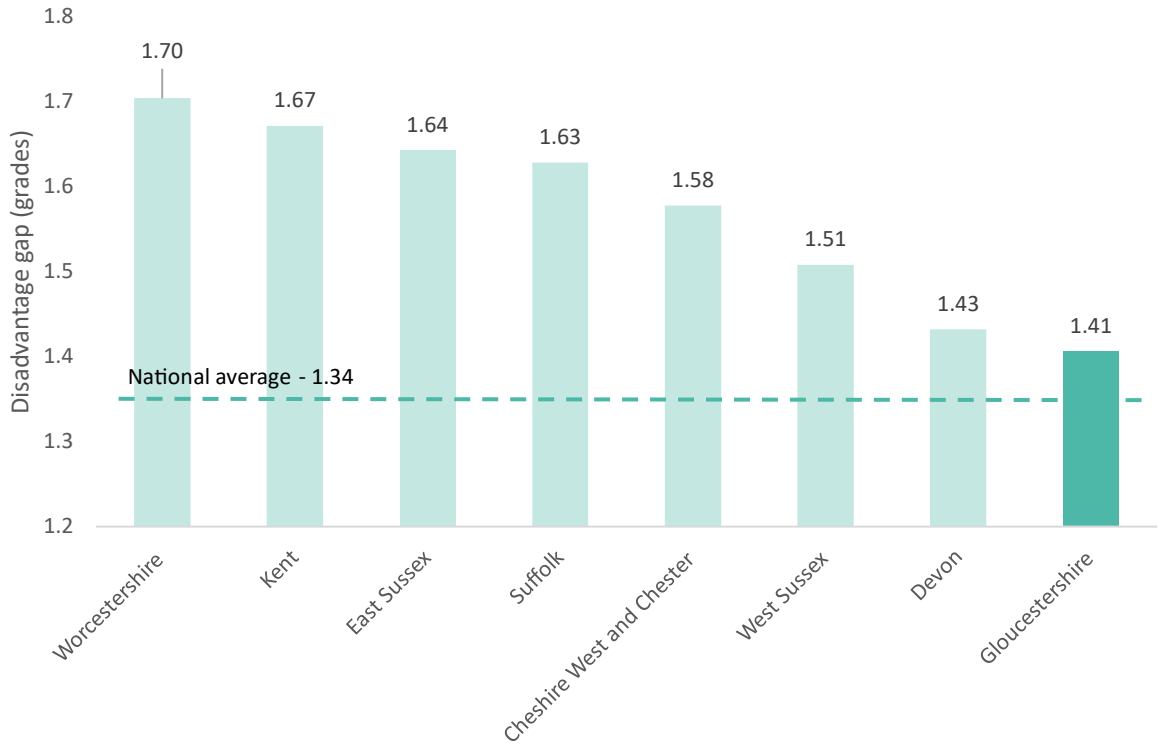


Key stage 4

Figures 5.8 and 5.9 look at the performance of Gloucestershire and the selected comparators at the end of KS4 in 2021, with the disadvantage gap represented in GCSE grades rather than months as for early years and KS2.

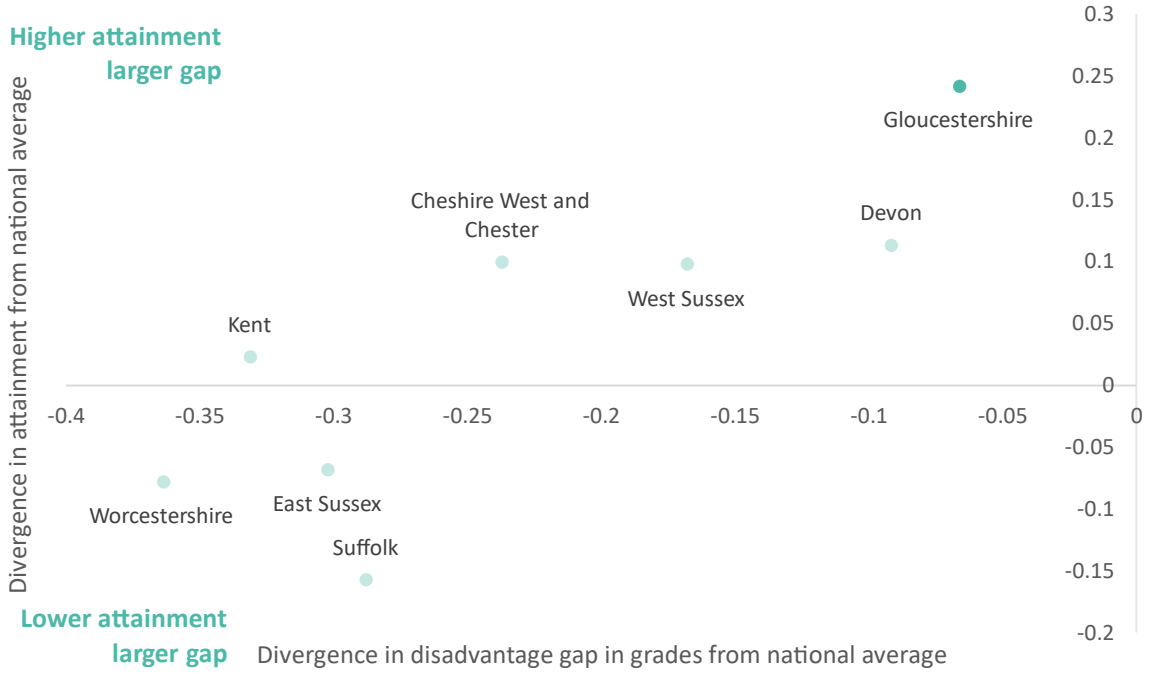
At the end of secondary school, Gloucestershire has the smallest disadvantage gap out of all the selected comparators (1.41 grades), all of which have larger gaps than the national average (1.34 grades).

Figure 5.8: KS4 disadvantage gap in Gloucestershire and selected comparators, 2021



Turning to attainment, Gloucestershire has the highest average attainment in GCSE maths and English (5.20 points) as well as the smallest gap of all the comparators. Most comparators have a higher average attainment than the national average (4.95 points), though Worcestershire, East Sussex, and Suffolk have a lower average than England as a whole.

Figure 5.9: Divergence from national averages for the KS4 disadvantage gap and average points in English and maths in Gloucestershire and selected comparators, 2021



Across all phases, Gloucestershire, along with Cheshire West and Chester and Kent, has higher attainment than the national average. In addition, Gloucestershire tends to have a relatively smaller disadvantage gap than the selected comparators. Gloucestershire's performance is most notable at the end of KS4, where the local authority significantly outperforms comparators in both attainment and the disadvantage gap. Gloucestershire's weakest performance relative to other comparators can be seen in the early years phase, where East Sussex is a significantly higher performing local authority than the others. However, early years is the only phase in which Gloucestershire has a smaller disadvantage gap than the national average.

On the whole these figures present a positive picture for Gloucestershire, especially when compared to areas with a similar social mix of neighbourhood types such as Kent, which Gloucestershire outperforms in both attainment and the size of the disadvantage gap in all phases, except for KS2, where Kent has a smaller disadvantage gap.

Appendix – pupil numbers in Gloucestershire by disadvantage status

	Early Years	KS2		KS4	
Year	Pupils eligible for FSM	Disadvantaged pupils	Persistently disadvantaged pupils	Disadvantaged pupils	Persistently disadvantaged pupils
2011	760	1080	385	965	270
2012	835	1185	410	970	240
2013	835	1120	390	1100	300
2014	800	1335	455	1055	290
2015	840	1400	420	1090	290
2016	800	1420	495	1095	275
2017	790	1380	445	995	275
2018	625	1465	485	960	280
2019	645	1580	530	1000	330
2020				940	325
2021				990	370