

# Education Policy Institute Report to Essex Education Task Force - Year 2

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EDUCATION  
POLICY  
INSTITUTE

EPI local authority  
analysis and  
evaluations



## About the Education Policy Institute

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.

Through our research, we provide insight, commentary, and a constructive critique of education policy in England – shedding light on what is working and where further progress needs to be made. Our research and analysis spans a young person's journey from the early years through to entry to the labour market.

Our core research areas include:

- Benchmarking English Education
- School Performance, Admissions, and Capacity
- Early Years Development
- Social Mobility and Vulnerable Learners
- Accountability, Assessment, and Inspection
- Curriculum and Qualifications
- Teacher Supply and Quality
- Education Funding
- Higher Education, Further Education, and Skills

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

This work was produced using statistical data from ONS. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates.

## About the Essex Education Task Force

**The Essex Education Task Force** was established by Essex County Council in April 2021 as an independent body. At the heart of its work across Essex lie **Renewal, Equality** and **Ambition**. The two key aims are:

- To minimize the impact of the pandemic on all children and young people as quickly as possible, with a three to five-year overview of phases of regeneration.
- To capture and promote current innovation and best practice across the education system in Essex.

An initial budget of £1.5 million has already been invested in supporting the work of pre-school and early years settings, schools, further education, governors and the voluntary sector. A major investment has focused on launching the Essex Year of Reading 2022.

This report from EPI marks the second in a series of three commissioned reports (a) to identify ‘the learning gaps’ the Task Force needs to address, and (b) to evaluate the impact of the Task Force’s work over the next three years.

**Roy Blatchford CBE, Chair, Essex Education Task Force**

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## Foreword

This is the second report from EPI, commissioned by the Essex Education Task Force of Essex County Council.

The large number of non-education related policy challenges currently facing our nation risks distracting from the important task of ensuring that our children's attainment and wellbeing is recovering from the impact of the Covid-related schools closures and the associated effects of this.

The challenge is particularly significant because we know that prior to the pandemic there was also a serious loss in national momentum in closing the disadvantage gap between poorer children and the rest of the pupil population.

It is therefore particularly welcome that local authorities such as Essex are taking the initiative in understanding what has happened to attainment and the disadvantage gaps in their areas, and how their own experiences compare with other parts of the country. Tracking pupil wellbeing and mental health is also important, given the warning signs of some disengagement from education amongst many pupils over the last few, very difficult, years.

We hope that the analysis in this report will help policy makers and practitioners in the county of Essex to produce a strategy to ensure recovery from the pandemic, and to set wider ambitions for the years ahead. The report should help Essex to understand the strengths and weaknesses in its performance and focus on evidence-based approaches to raising attainment, closing gaps and improving child wellbeing.

As ever, we welcome comment and feedback on our analysis and conclusions.

**Rt. Hon. David Laws, Executive Chairman, Education Policy Institute**

## Introduction

This is the second local authority analysis and evaluation report to Essex County Council's Education Task Force from the Education Policy Institute (EPI). The Task Force was created as an independent body to oversee post-Covid recovery in education and in young people's mental health in Essex, and EPI has been commissioned as a research partner to help track how well early years providers, schools and further education settings are supporting young people and closing the gap between the most disadvantaged and the rest. This is set within a wider context of economic recovery in the county and enabling families to get back into or remain in employment.

Since the first report was published in February 2022, data on key stage 4 and age 16-19 assessments from 2021 have been made available in the National Pupil Database (NPD).

This report details the trends in attainment and the disadvantage gap at key stage 4 and age 16-19 in Essex, and how this has changed over the past decade. For both these phases, we provide an estimate of the gap in 2020/21 along with commentary on how to interpret these in light of the markedly different approach to grading in this year. Further analysis is provided of post-16 outcomes using publicly available local authority data.

For key stage 4, we also provide commentary on recently released Department for Education statistics on 2021/22 assessments and the levels of free school meal eligibility.

For age 16-19, we also provide commentary on level 3 attainment in 2021/22.

In addition, we provide local comparisons within Essex, as well as similar local authorities from across England to provide more context on how well disadvantaged pupils in Essex perform.

Due to the cancellation of early years and key stage 2 assessments in 2020 and 2021 as a result of the Covid-19 pandemic, our first report contains the most recent data for these phases. Analysis of this data has therefore not been replicated in this report.

# Executive Summary

## Key stage 4

- **A smaller proportion of pupils are disadvantaged at the end of secondary school in Essex than in England** (17.9 per cent in 2021, compared with 24.5 per cent nationally). Trends in Essex have closely matched the national trends over time, albeit at much lower levels of disadvantage. Department for Education (DfE) data from 2022 continued to show that, in Essex, a lower proportion of pupils finishing secondary were eligible for eligible for free school meals than pupils nationally.
- **KS4 pupils in Essex are also much less likely to be growing up in long-term poverty than the national average.** In Essex, 6.5 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 in Essex is very similar to the national average.** In 2021 the average GCSE grade in English and maths in Essex was 4.96 compared with 4.95 nationally, putting Essex directly in the middle 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 Essex has been higher than the national average since 2017** at 1.58 grades in 2021 compared with the national average of 1.34 grades. Essex had a larger disadvantage gap at KS4 than around three-quarters of local authorities in England in 2021.

## 16-19 education

- **Essex has very similar participation rates to England as a whole**, with a slightly lower proportion of 16- and 17-year-olds in Essex not in education, employment, training, or unknown participation types compared to the national proportion. Conversely, a slightly higher proportion of 16- and 17-year-olds in Essex are in non-educational participation than in England as a whole.
- **Compared to the average in England, a smaller proportion of students in Essex go into higher education** (34.9 per cent in Essex, 35.7 per cent nationally) **and further education** (10.9 per cent in Essex, 13.1 per cent nationally).
- **Compared to the average in England, a greater proportion of students in Essex progress to an apprenticeship** (7.7 per cent in Essex, 6.4 per cent nationally) **or employment** (24.8 per cent in Essex, 20.8 per cent nationally).
- **A lower share of students in Essex are in unsustained destinations after leaving 16 to 18 study than in England as a whole** (14.5 per cent in Essex, 15.6 per cent nationally).
- **A much smaller proportion of disadvantaged young people in Essex progress to higher education than non-disadvantaged young people do** (21.3 per cent for disadvantaged young people, 38.1 per cent for non-disadvantaged young people), **while a greater proportion progress to further education** (15.1 per cent for disadvantaged young people, 9.9 per cent for non-disadvantaged young people), **and a substantially higher proportion fall into the unsustained category** (24.5 per cent for disadvantaged young people, 12.2 per cent for non-disadvantaged young people).
- **A smaller proportion of disadvantaged young people in Essex progress to higher education compared to the proportion of disadvantaged young people in England** (21.3 per cent in Essex,

26.2 per cent nationally). **A larger proportion of disadvantaged young people in Essex progress to employment compared to the proportion of disadvantaged young people in England** (24.9 per cent in Essex, 17.9 per cent nationally). Destinations are similar between non-disadvantaged young people in Essex and non-disadvantaged young people in England as a whole.

- In 2022, **young people in Essex taking A levels were typically awarded slightly lower grades than the national average** (37.2 points in Essex, 38.9 points nationally). **Young people in Essex taking applied general qualifications were similarly awarded lower grades than the national average** (30.3 points in Essex, 32.0 points nationally). However, **young people in Essex taking tech levels began to outperform the national average in 2022** (31.4 points in Essex, 30.6 points nationally).
- **Essex has had a consistently larger 16-19 disadvantage gap than the national average across students' best three qualifications**, although the difference between the gaps was at its narrowest since 2018 in 2021 at 0.29 grades (3.35 in Essex, 3.06 nationally).

### Comparisons within Essex

- At key stage 4, **five parliamentary constituencies in Essex outperformed the national average in both attainment and the disadvantage gap** (Colchester, Thurrock, Epping Forest, Saffron Walden, and Southend West). Six constituencies (Basildon and Billericay, South Basildon and East Thurrock, Braintree, Castle Point, Harwich and North Essex, and Harlow) had both lower attainment and a larger disadvantage gap than England as a whole. No constituencies in Essex had below average attainment with a below average gap.

### Comparisons beyond Essex

- We also consider attainment and disadvantage gaps in similar areas beyond Essex, identifying seven similar local authorities including two county councils to use as comparators in this analysis: Bury, Cumbria, Dudley, Hertfordshire, Southend-on-Sea, Stockport, and Telford and Wrekin.
- **Essex had the second largest gap among the comparators at key stage 4 in 2021**, the gap in Essex was 1.58 grades, behind only Telford and Wrekin at 1.64 grades. All the comparators had a larger KS4 gap than the national average, with the exception of Stockport, which had the same gap as England as a whole at 1.34 grades.
- **At 4.96 points, Essex has the third highest average attainment among the comparators at key stage 4 behind Hertfordshire, Stockport, and Southend-on-Sea** (compared with the national average of 4.95 points). Of the selected comparators, only Stockport has both higher attainment than the national average and a disadvantage gap equal to or smaller than England as a whole.

### Next steps

In summary, through our analysis of the characteristics, attainment, and disadvantage gaps of key stage 4 and post-16 learners in Essex, we find that disadvantaged young people in Essex tend to be further behind than their national counterparts, and that the local authority tends to perform less favourably when compared to similar local authorities.

A more thorough assessment of the issues facing Essex will be possible when 2022 data for all phases is available. Until these results are explored in the third report of this series, we highlight the following issues as potentially worth further exploration:



- At key stage 4, the proportion of persistently disadvantaged pupils in Essex increased steadily in the last five years, reaching its highest level in a decade in 2021. However, the persistent disadvantage gap remained largely static between 2017 and 2020, with a sharp rise in 2021. What more can be done to support pupils in persistent poverty in Essex?
- Educational outcomes at key stage 4 vary significantly across the parliamentary constituencies of Essex. Five parliamentary constituencies in Essex outperform the national average in both attainment and the disadvantage gap in 2021 (Colchester, Thurrock, Epping Forest, Saffron Walden, and Southend West). On the other hand, six constituencies (Basildon and Billericay, South Basildon and East Thurrock, Braintree, Castle Point, Harwich and North Essex, and Harlow) have both lower attainment and a larger disadvantage gap than England as a whole in 2021. Is there a best practice to be learned from these higher performing constituencies that the rest of Essex can benefit from?
- Young people in Essex taking tech levels have outperformed the national average in all years since 2018, with the exception of 2021. Can this success be sustained into future years, and if so, what can policymakers learn from this to support students taking A levels and applied general qualifications?
- Disadvantaged pupils in Essex 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

The COVID-19 pandemic caused significant disruption to education. National lockdowns and restrictions to in-person teaching led to the cancellation of exams for GCSEs, A levels and other post-16 qualifications in both 2020 and 2021. Instead, students' grades were based on Centre Assessed Grades (CAGs) and Teacher Assessed Grades (TAGs) in 2020 and 2021 respectively. These approaches resulted in increases to average grades in both years.

To account for this disruption when calculating the disadvantage gap, at key stage 4 we 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. We also use the 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 analysis uses the National Pupil Database (NPD).

### **Disadvantaged and persistently disadvantaged pupils**

We define a pupil as disadvantaged if they have been eligible for free school meals on the day of the school census in any of the last six years, and non-disadvantaged if they have not. This is slightly different to the definition of disadvantage used by the DfE to determine eligibility for pupil premium.<sup>1</sup> Our figures may also differ from published DfE statistics for state-funded schools due to differing school selection criteria. We include pupils at all state-funded mainstream and special schools. We exclude pupils attending independent schools as well as those whose sole or main registration was in alternative provision, a pupil referral unit, or a hospital school.

We define a pupil as persistently disadvantaged if they are eligible for free school meals for at least 80 per cent of their school years extending back to year 2.

### **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'**

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<sup>1</sup> The following groups are eligible for pupil premium:

- Pupils who are recorded as eligible for free school meals or have been recorded as eligible for any period in the past 6 years.
- Looked-after and previously looked-after children.

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. More detail can be found in our report: 'Covid-19 and Disadvantage Gaps in England 2021'.<sup>2</sup>

### **Local authority disadvantage gaps, and other geographic breakdowns**

We also report the gap for local authorities (LAs) and parliamentary constituencies. In each we construct the gap by comparing disadvantaged pupils in the area to the national attainment of those who are not disadvantaged (see national disadvantage gap for further explanation). Similarly, to construct the persistent disadvantage gap, we compare persistently disadvantaged pupils with the national attainment of non-disadvantaged pupils. 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 also 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.

### **Key stage 4 attainment**

To assess overall attainment at secondary level we measure pupils' average GCSE grade across English and maths. While the 9 to 1 grading system was introduced in 2017 for English and maths<sup>3</sup> 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.<sup>4</sup> The calculation of the post-16 gap is necessarily different to the method used at GCSE due to 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

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<sup>2</sup> Tuckett, S. *et al.* 'COVID-19 and Disadvantage Gaps in England 2021', EPI, December 2022.

<sup>3</sup> 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 report 'Covid-19 and disadvantage gaps in England 2021'.

<sup>4</sup> Tuckett, S. *et al.* 'Measuring the disadvantage gap in 16-19 education', EPI, March 2021.

level grades that disadvantaged students were behind non-disadvantaged students, over their best three qualifications taken at level 1 to 3 during this phase.<sup>5</sup>

This gap measure includes all students at the end of their 16-19 study at a state-funded 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.

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<sup>5</sup> 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 key stage 4 attainment and disadvantage gaps

## Key stage 4: attainment and characteristics

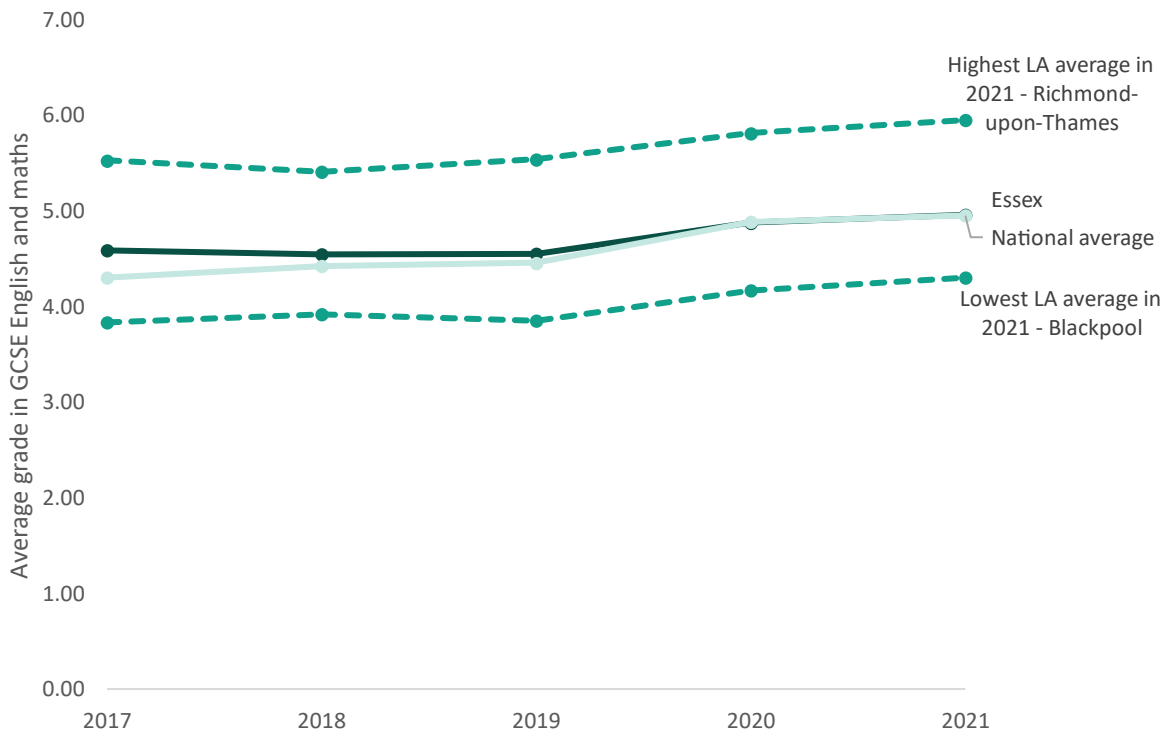
This section considers pupil attainment and characteristics at the end of secondary school, or key stage 4 (KS4). Our attainment and disadvantage gap measure is based on pupils' average GCSE grades in English and maths. These core subjects, while quite narrow, are unaffected by changes in GCSE subject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

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 Essex was 4.96, 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 Essex at the midpoint of local authorities in terms of attainment.

**Figure 2.1: Average grade in GCSE English and maths in Essex, England average, and highest and lowest LA averages each year, 2017-2021<sup>6</sup>**



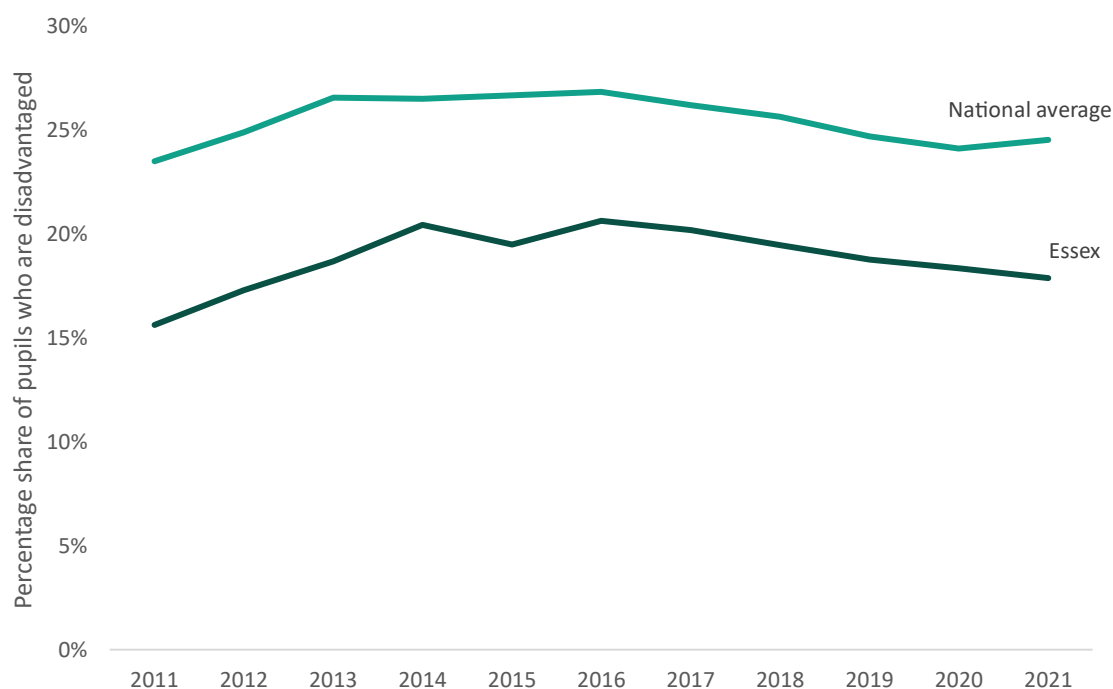
To help put attainment trends in Essex in context, we examine the level of disadvantage and persistent disadvantage compared with England nationally (seen in Figures 2.2 and 2.4 respectively). We define a pupil as disadvantaged if they have been eligible for free school meals at any point in the previous 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 2,875 disadvantaged pupils and 800 persistently disadvantaged pupils in Essex each year of this gap analysis, out of a total population of 15,320.

We find that Essex pupils are less likely to be disadvantaged than pupils nationally. In 2021, 17.9 per cent of pupils finishing KS4 in Essex were disadvantaged compared with 24.5 per cent nationally.

Although much less disadvantaged than England as a whole, trends over time in Essex have tracked national trends: the level of disadvantaged increased between 2011 and 2016, reaching a peak in Essex in 2016 at 20.6 per cent and 26.8 per cent nationally. Since 2016 the level of disadvantage has fallen by around 0.5 percentage points each year.

<sup>6</sup> Note: the dotted lines represent the highest and lowest local authorities in terms of attainment in each year. The local authority each point refers to may change year-on-year.

**Figure 2.2: Share of KS4 pupils who are disadvantaged, Essex and national average, 2011-2021<sup>7</sup>**



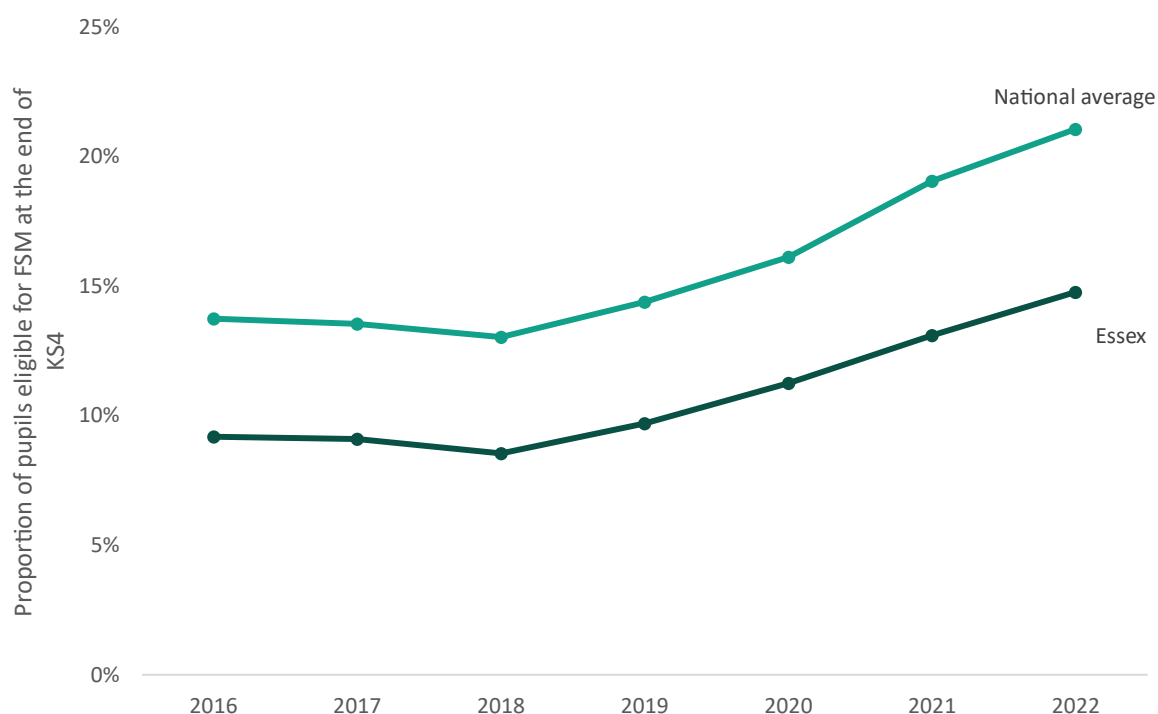
We also consider more recent DfE data based on the proportion of pupils who are currently eligible for free school meals at the end of secondary school (rather than those eligible for FSM in any of the previous six years). This shows a different pattern as, unlike the disadvantaged definition in Figure 2.2, it is not operating with a six-year lag. While Essex continues to have a lower proportion of FSM-eligible pupils finishing secondary school than the national average, this proportion has risen sharply in both Essex and England as a whole. Since 2018, the proportion of FSM-eligible pupils has risen by 6.2 percentage points in Essex, and has risen by 8.0 percentage points nationally. By 2022, 14.8 per cent of Essex pupils were FSM-eligible compared with 21.1 per cent nationally.

The rising share of FSM pupils in Essex 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'.<sup>8</sup>

<sup>7</sup> Disadvantage calculated using the FSM6 flag (pupils that were eligible for free school meals in the last six years) in the National Pupil Database. Only includes pupils at state-funded schools except for those whose sole or main registration was in alternative provision, a pupil referral unit, or a hospital school.

<sup>8</sup> (Tuckett et al, 2022)

**Figure 2.3: Proportion of pupils eligible for FSM at the end of KS4, Essex and national average, 2016-2022**



Source: DFE, *Schools, Pupils and their Characteristics, (2021/22)*<sup>9</sup>

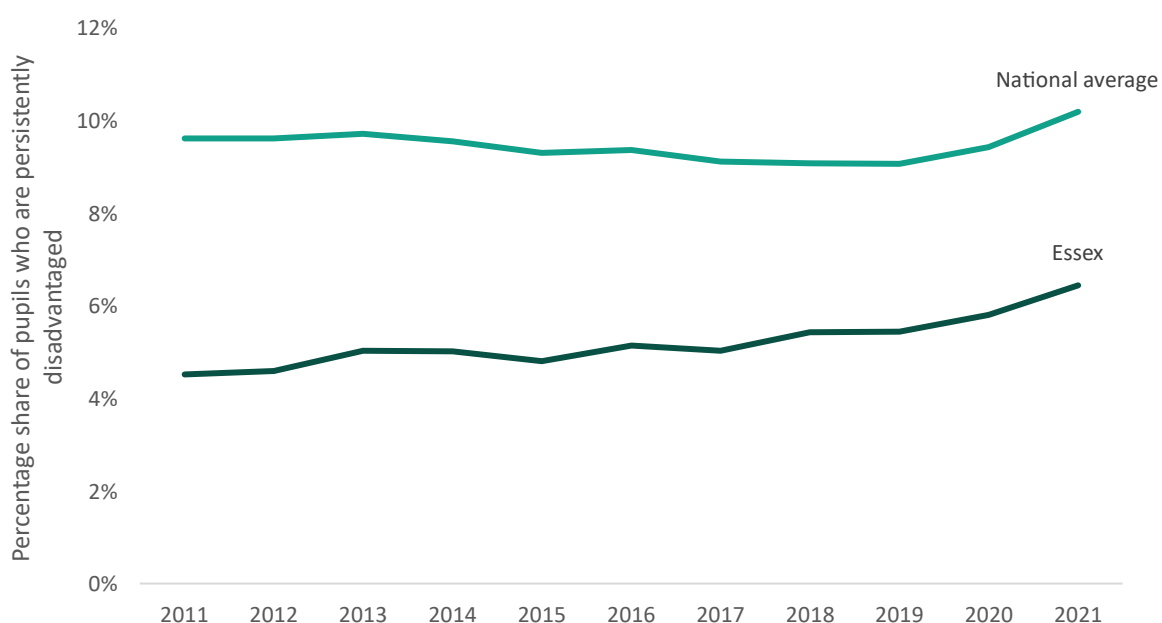
Figure 2.4 shows the proportion of pupils who are persistently disadvantaged in Essex compared with the national average. Essex pupils are also much less likely to be growing up in long-term poverty than the national average. In Essex, 6.5 per cent of pupils finishing their GCSEs in 2021 had been disadvantaged for at least 80 per cent of their school life. By comparison, the level of persistent disadvantage in England nationally was 10.2 per cent. Since 2018, the proportion of persistently disadvantaged pupils in Essex has risen by 1.0 percentage points. Over the same period, this proportion has risen by 1.1 percentage points nationally.

In terms of trends over time the national level of persistent disadvantaged 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 Essex the proportion of persistently disadvantaged pupils has been on a long-term upward trend since its low of 4.5 per cent in 2011, rising by 2.1 per cent to 6.5 per cent by 2021.

<sup>9</sup> <https://explore-education-statistics.service.gov.uk/find-statistics/school-pupils-and-their-characteristics>



**Figure 2.4: Share of KS4 pupils who are persistently disadvantaged, Essex and national average, 2011-2021<sup>10</sup>**



#### Key stage 4: disadvantage gaps

Figure 2.5 illustrates the disadvantage gap at KS4 between 2011 and 2021 in Essex compared with the national average. As explained in the methodology section of this report, 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 was 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 Essex over the same period has been more volatile, largely sitting above the national average but dropping to a similar level in 2014 and reaching a low in 2016 at 17.6 months (compared to the national average in 2016 of 18.1 months.)

In 2019, using our grade gap measure, the gap in Essex was 1.37 grades compared to 1.26 nationally. The gap increased in both Essex and England in 2021 to 1.58 and 1.34 grades respectively. 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 Essex’s disadvantaged pupils or differential effects of the grading processes unique to those

<sup>10</sup> Persistent disadvantage calculated using the FSM flag (pupils that were eligible for free school meals) for at least 80 per cent of their recorded FSM flags in the National Pupil Database. Only includes pupils at state-funded schools except for those whose sole or main registration was in alternative provision, a pupil referral unit, or a hospital school.

years. It will be important to continue to monitor the KS4 gap in future years but initial signs from 2022 data suggest that the trend of the rising gap in Essex has continued (discussed below).

**Figure 2.5: Disadvantage gap at the end of KS4 for pupils in Essex and national average, 2011-2021<sup>11</sup>**

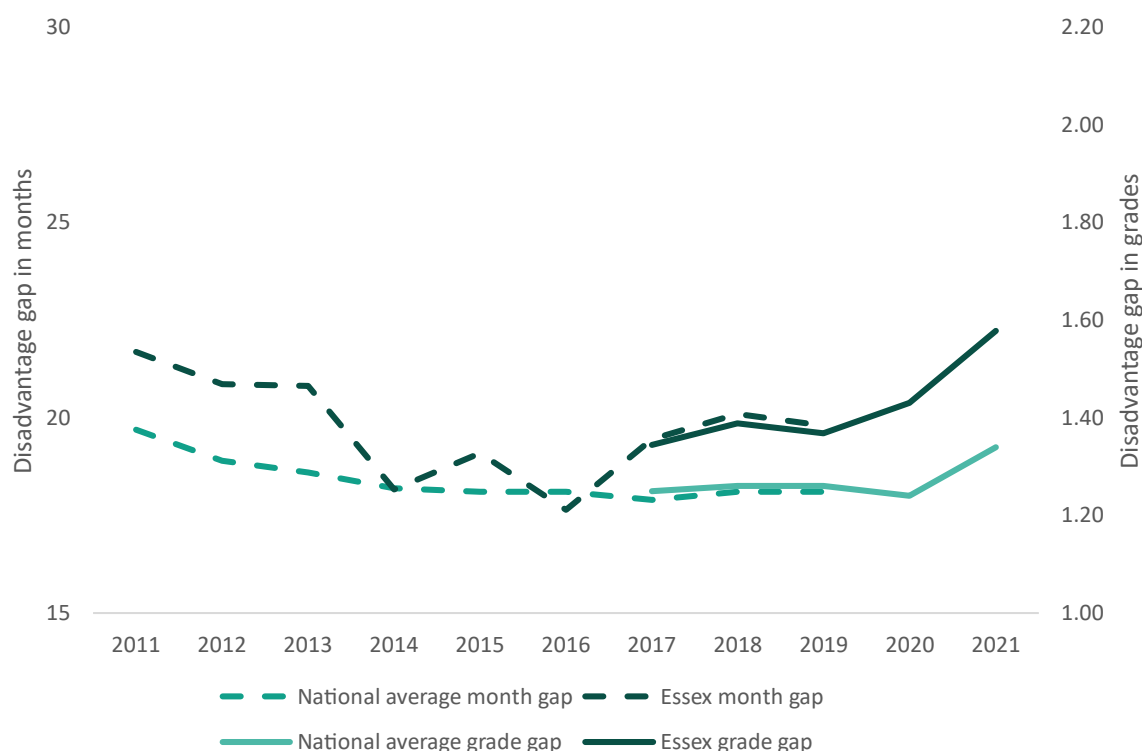
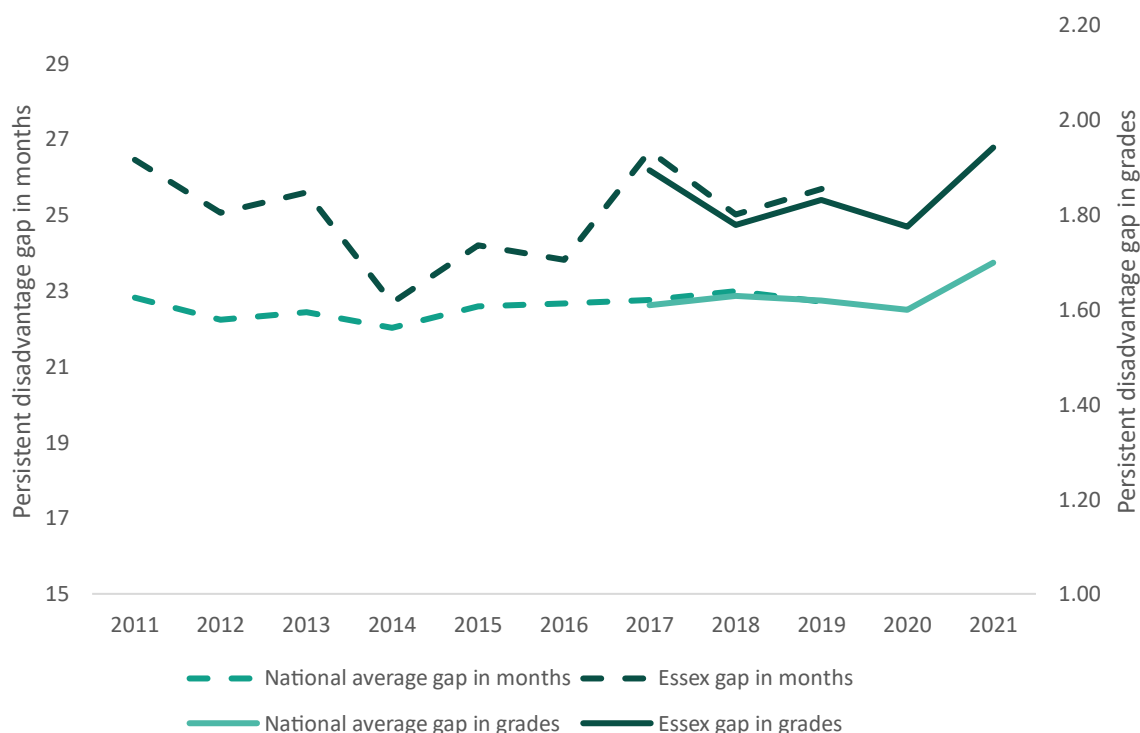


Figure 2.6 shows the persistent disadvantage gap at key stage 4 in Essex compared with the national gap. The national persistent disadvantage gap has remained mostly steady throughout the last decade, with the largest rise of 0.10 grades in 2021 to 1.70.

This compared to a persistent disadvantage grade gap in Essex of 1.94 in 2021. The difference between these gaps in Essex and England nationally is very similar to the difference for the headline gaps. It signifies that, on average in 2021, persistently disadvantaged pupils in Essex were awarded 0.24 of a GCSE grade lower than persistently disadvantaged pupils nationally, and 1.94 grades lower than their non-disadvantaged peers nationally.

<sup>11</sup> Disadvantage calculated using the FSM6 flag (pupils that were eligible for free school meals in the last six years) in the National Pupil Database. Only includes pupils at state-funded schools except for those whose sole or main registration was in alternative provision, a pupil referral unit, or a hospital school.

**Figure 2.6: Persistent disadvantage gap at the end of KS4 for pupils in Essex and national average, 2011,2021<sup>12</sup>**



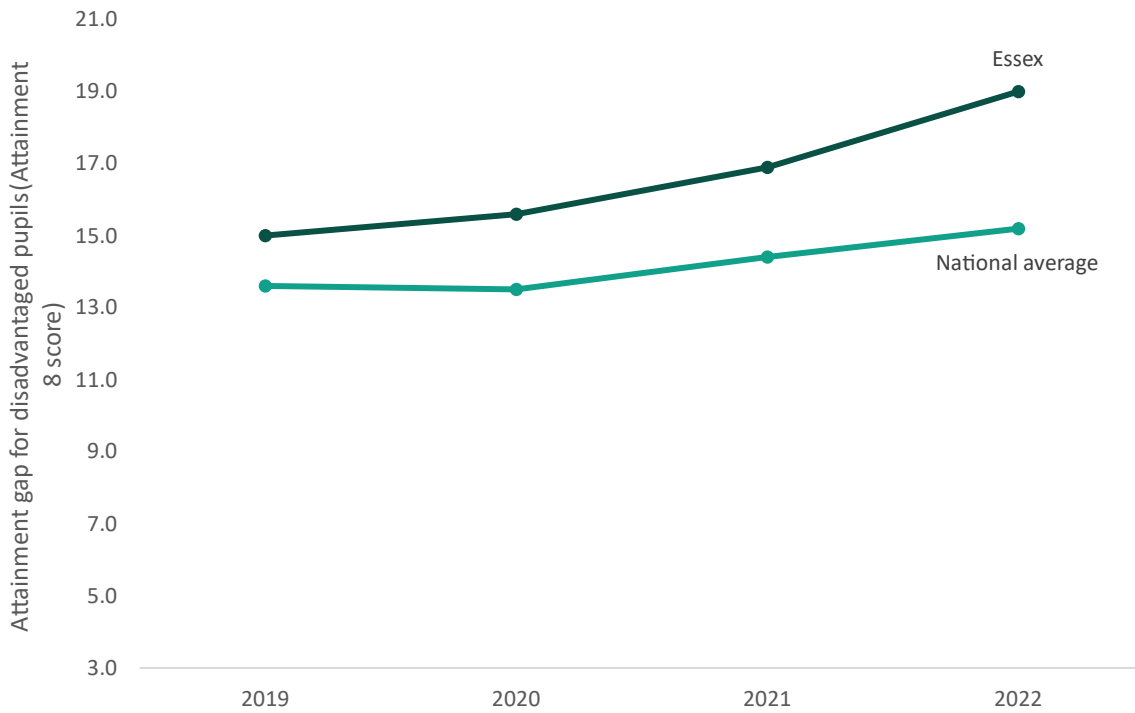
In summary, Essex has a lower proportion of disadvantaged and persistently disadvantaged pupils than England as a whole, but larger gaps for both groups. In recent years the gaps in Essex have largely followed the trends in the national gaps, but since 2019 the disadvantage gap in Essex is increasing at a faster rate than the disadvantage gap nationally. However, we cannot determine whether this widening in the Essex gap reflects relative improvements in underlying learning among its disadvantaged pupils or differential effects of the changed grading processes in 2020 and 2021.

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 2.7 shows the attainment gap (using the raw difference in average attainment 8 scores) between disadvantaged pupils in Essex and their non-disadvantaged peers nationally compared with the equivalent gap across England.

The trend seen using this attainment 8 measure echoes the trend seen in the disadvantage gap since 2019 in Figure 2.5, with a larger gap in Essex that is growing at a faster rate than the national gap. From this DfE data, we can see that the attainment 8 gap in Essex is now 19.0 points in 2022 compared with 15.2 points nationally. In 2019, the gap in Essex was lower at 15.0 points compared with 13.6 nationally.

<sup>12</sup> Persistent disadvantage calculated using the FSM flag (pupils that were eligible for free school meals) for at least 80 per cent of their recorded FSM flags in the National Pupil Database. Only includes pupils at state-funded schools except for those whose sole or main registration was in alternative provision, a pupil referral unit, or a hospital school.

**Figure 2.7: Attainment gap at the end of KS4 for disadvantaged pupils, Essex and national average, 2019-2021**



Source: DfE, Key stage 4 performance (2021/22)<sup>13</sup>

<sup>13</sup> <https://explore-education-statistics.service.gov.uk/find-statistics/key-stage-4-performance-revised/2021-22>

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

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

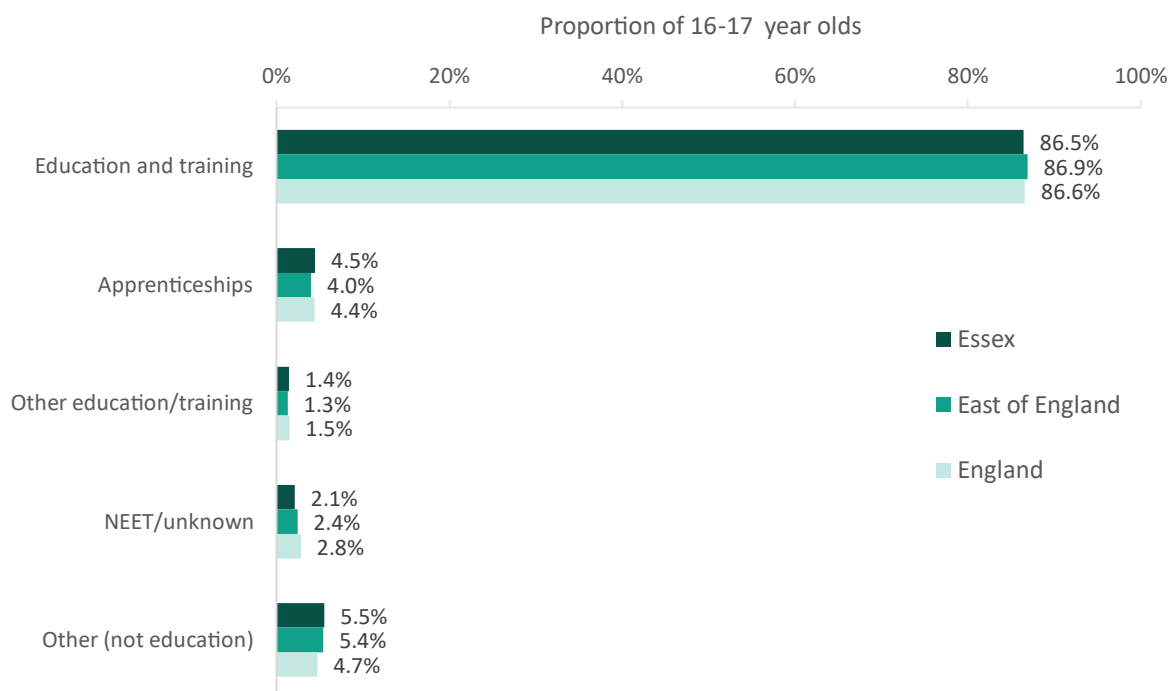
- Participation of 16- and 17-year-olds in education, employment or training.
- Destinations of 16-to-18 students going into apprenticeships, education and employment destinations.
- Attainment at different qualification levels by the age of 19.
- An analysis of the 16-19 disadvantage gap.

## 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 Essex, showing where young people in Essex progress to after key stage 4. Data for 18-year-olds is only available at a national level, rather than for local authorities.

Essex and the East of England have very similar participation rates when compared to England as a whole, with a slightly lower proportion of 16- and 17-year-olds in Essex not in education, employment, training, or unknown participation types compared to the national proportion. Conversely, a slightly higher proportion of 16- and 17-year-olds in Essex are in non-educational participation than in England as a whole.

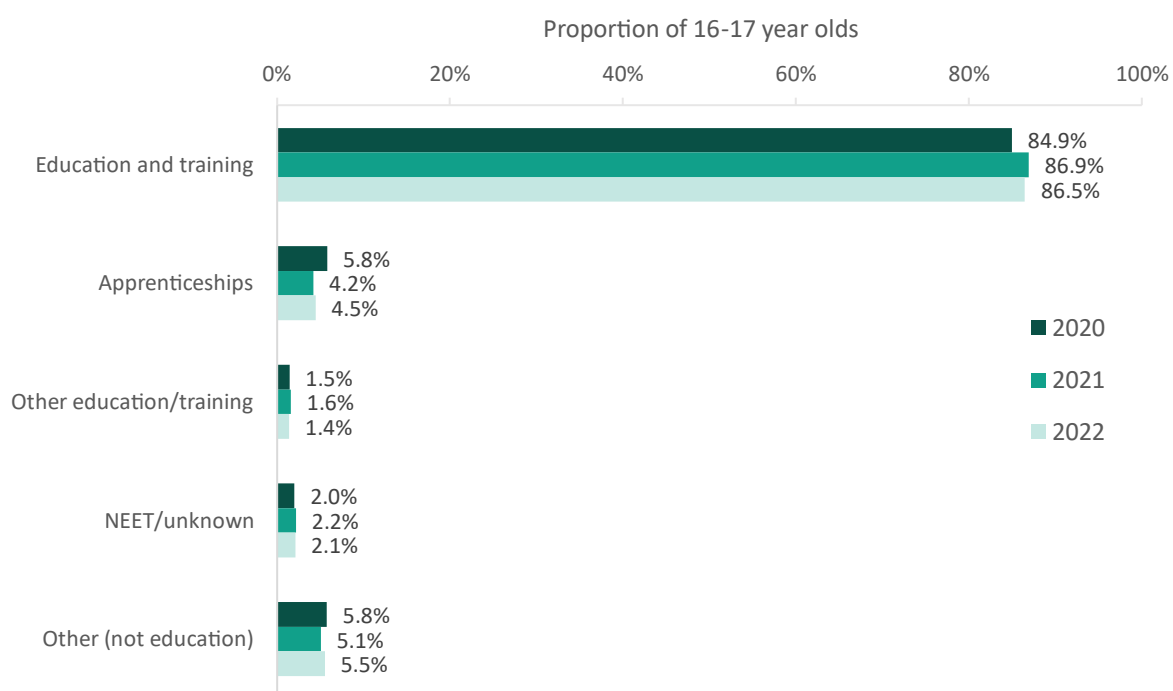
**Figure 3.1: Participation of 16- and 17-year-olds in Essex, East of England, and England, 2022**



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 Essex has changed over the last three years. Between 2020 and 2022, the proportion of 16- and 17-year-olds participating in education and training has increased, while the proportion undertaking apprenticeships has decreased. This mirrors the national picture, suggesting this effect is not unique to Essex. There has been very little change in the proportion of young people not in education, employment, training, and unknown participation types, or other forms of education and training.

**Figure 3.2: Participation of 16- and 17-year-olds in Essex, 2020-2022**



Source: DfE, Participation in education, training and NEET age 16 to 17 by local authority (2021/22)<sup>14</sup>

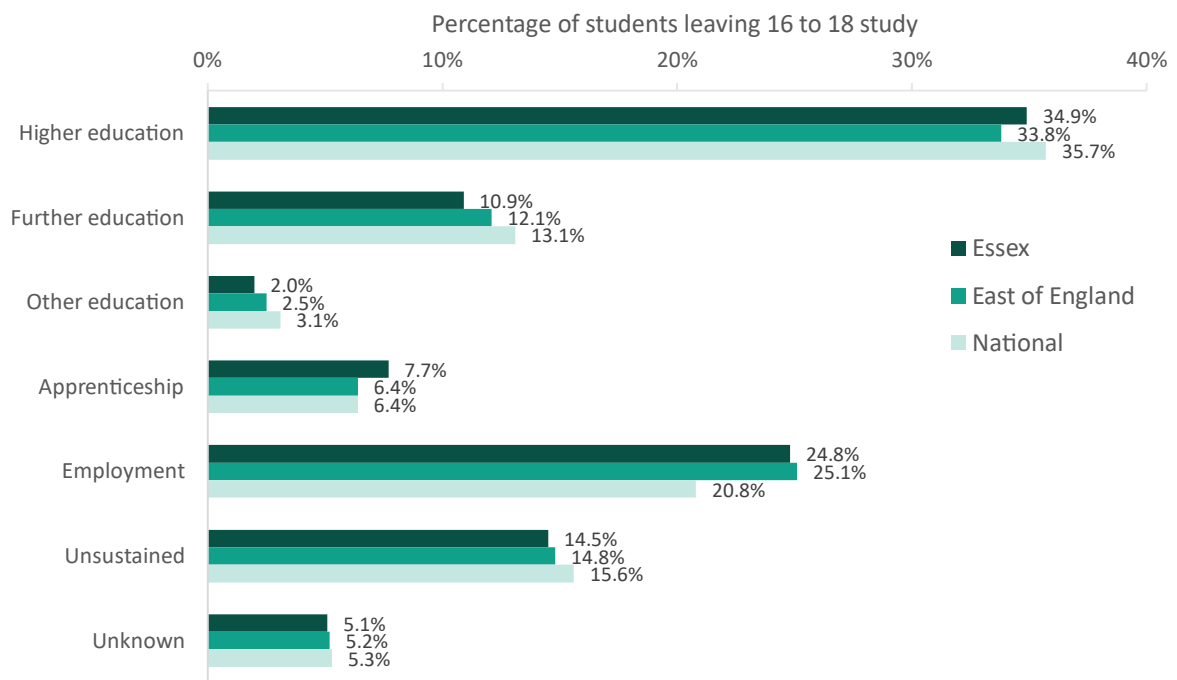
### Destinations of students leaving 16 to 18 study

Figure 3.3 shows the destinations of young people in Essex who have completed 16 to 18 study, compared with the East of England and England as a whole. A smaller proportion of students in Essex go into higher education (34.9 per cent) and further education (10.9 per cent) than the average in England, while a greater proportion progress to an apprenticeship (7.7 per cent) or employment (24.8 per cent). A lower share of Essex students end up in unsustained destinations<sup>15</sup> after leaving 16 to 18 study than in the East of England or England as a whole.

<sup>14</sup> <https://explore-education-statistics.service.gov.uk/find-statistics/participation-in-education-training-and-neet-age-16-to-17-by-local-authority/2021-22>

<sup>15</sup> Young people in ‘unsustained destinations’ refers to young people who 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 16-18 study, 2021**

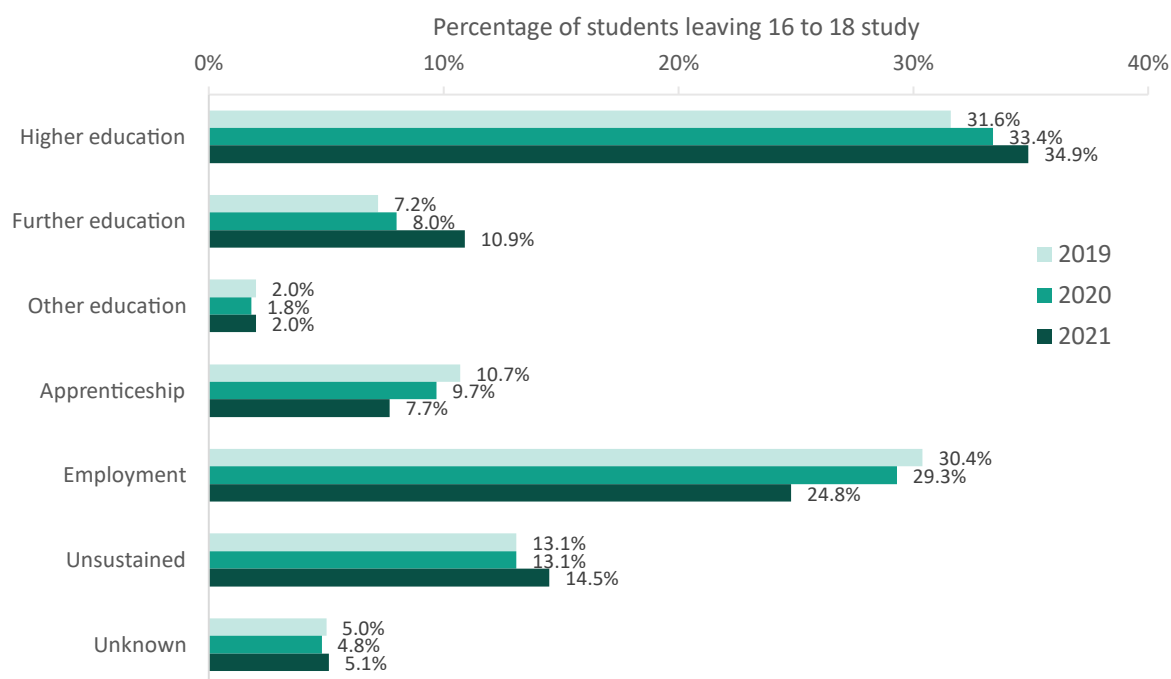


Source: DfE, 16-18 destination measures (2020/21)<sup>16</sup>

Figure 3.4 shows how the destinations of young people leaving 16 to 18 study have changed over the past three years. In 2021, a greater proportion of Essex students progressed to higher education and university than in 2019, while a lower proportion progressed to apprenticeships or employment in 2021 than in 2019. The proportion of Essex students ending up in an unsustained destination did not change between 2019 and 2020 but increased by 1.4 percentage points in 2021.

<sup>16</sup> <https://explore-education-statistics.service.gov.uk/find-statistics/16-18-destination-measures>

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



Source: DfE, 16-18 destination measures (2020/21)<sup>17</sup>

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

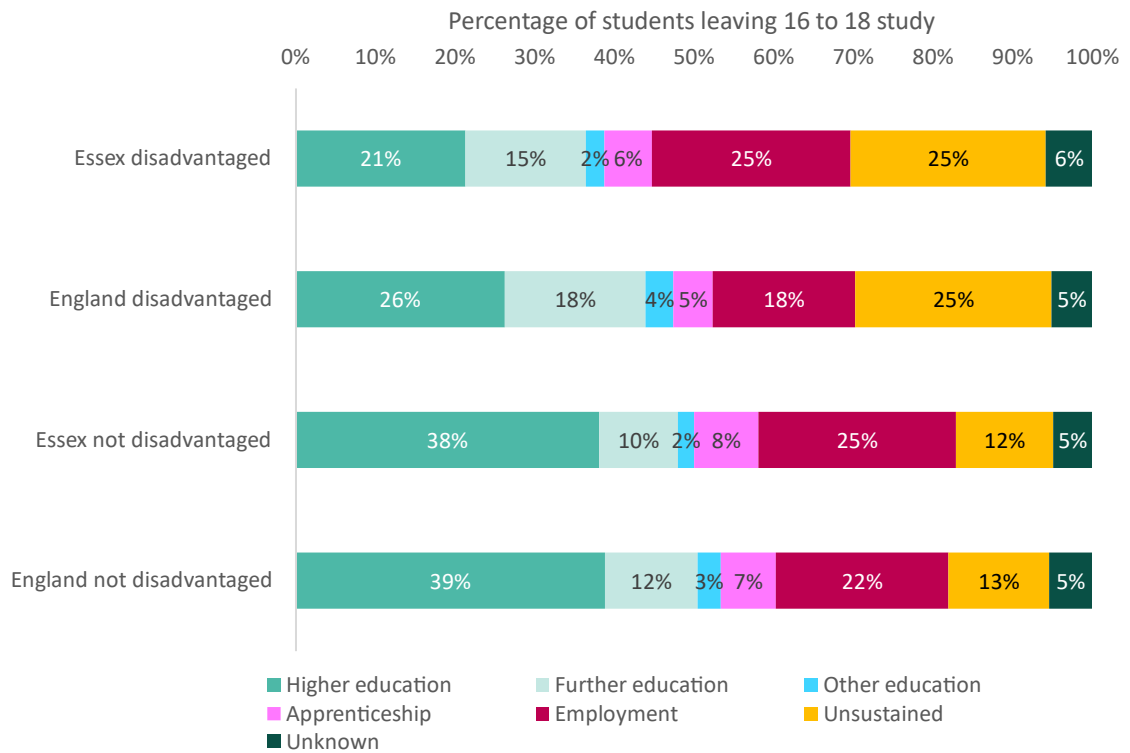
Comparing disadvantaged young people in Essex to disadvantaged young people across England, a smaller proportion progress to university or further education, while a greater proportion progress to employment. However, the share of students in the unsustained category is the same for both – at roughly 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 Essex as non-disadvantaged young people nationally.

<sup>17</sup> <https://explore-education-statistics.service.gov.uk/find-statistics/16-18-destination-measures>



**Figure 3.5: Destination of students leaving 16 to 18 study by disadvantage status, Essex and England, 2021**



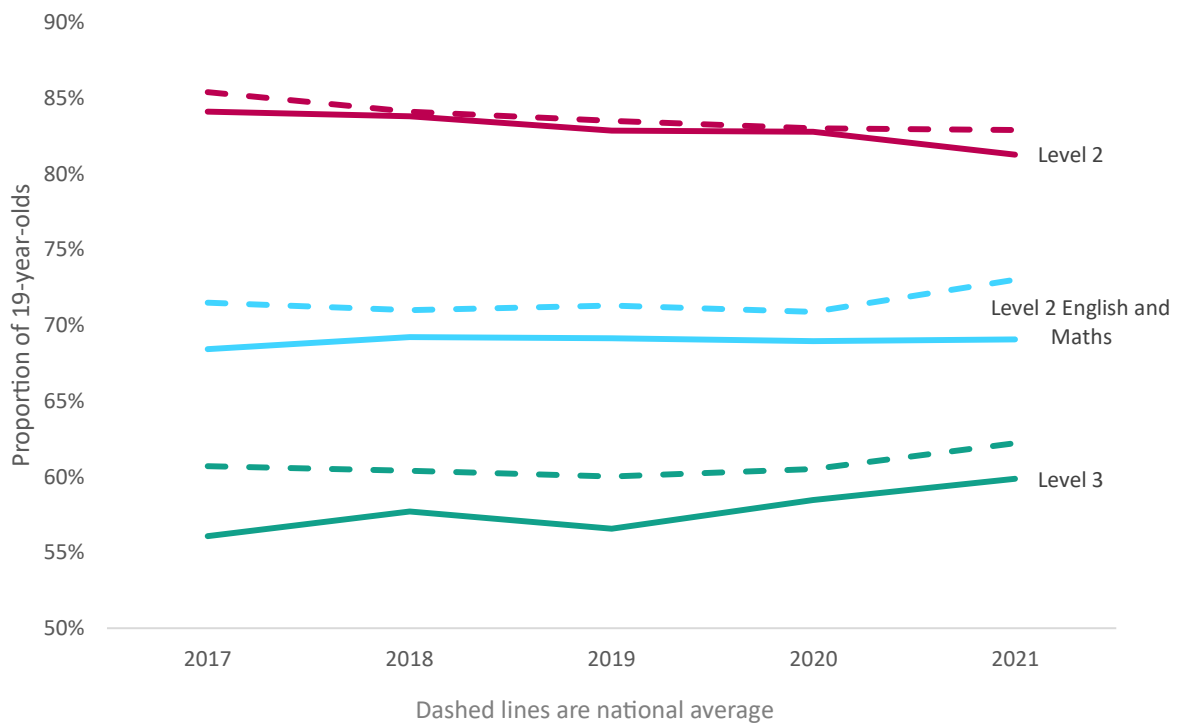
Source: DfE, 16-18 destination measures (2020/21)<sup>18</sup>

### Attainment by age 19

Figure 3.6 looks at the proportion of 19-year-olds qualified at different levels. Essex was slightly below the national average at all levels in 2021, with the largest difference at level 2 English and maths qualifications (69 per cent in Essex, 73 per cent nationally).

<sup>18</sup> <https://explore-education-statistics.service.gov.uk/find-statistics/16-18-destination-measures>

**Figure 3.6: Attainment levels of 19-year-olds in Essex and England, 2017-2021**

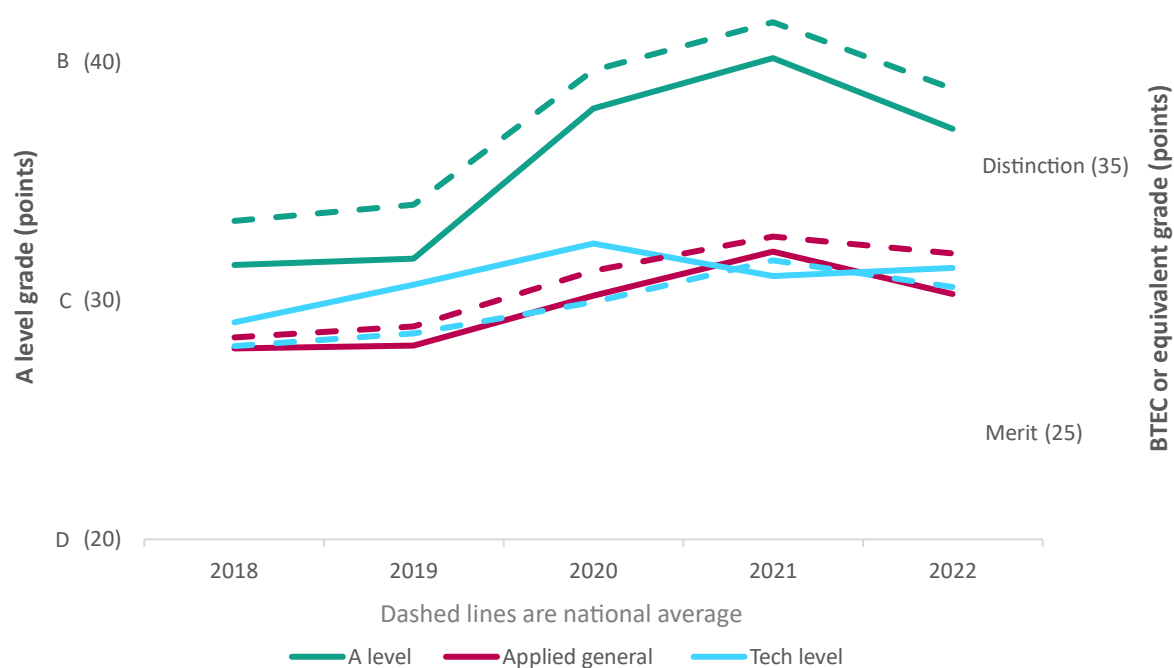


Source: DfE, *Level 2 and 3 attainment age 16-25, 2020/21*<sup>19</sup>

Figure 3.7 looks at the attainment of pupils completing level 3 qualifications in Essex, with the national average at each level represented by the dotted lines. In 2022, young people in Essex taking A levels typically were awarded slightly lower grades than the national average (37.2 points in Essex, 38.9 points nationally). Young people in Essex taking applied general qualifications were similarly awarded lower grades than the national average (30.3 points in Essex, 32.0 points nationally). However, young people in Essex taking tech levels began to outperform the national average in 2022 (31.4 points in Essex, 30.6 points nationally).

<sup>19</sup> <https://explore-education-statistics.service.gov.uk/find-statistics/level-2-and-3-attainment-by-young-people-aged-19>

**Fig 3.7: Average grades in level 3 qualifications in Essex and England, 2018-2022**



Source: DfE, *A level and other 16 to 18 results, 2021/22*<sup>20</sup>

### 16-19 disadvantage gaps

Using data from the National Pupil Database we create a measure of the disadvantage gap for 16-19 education. 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.

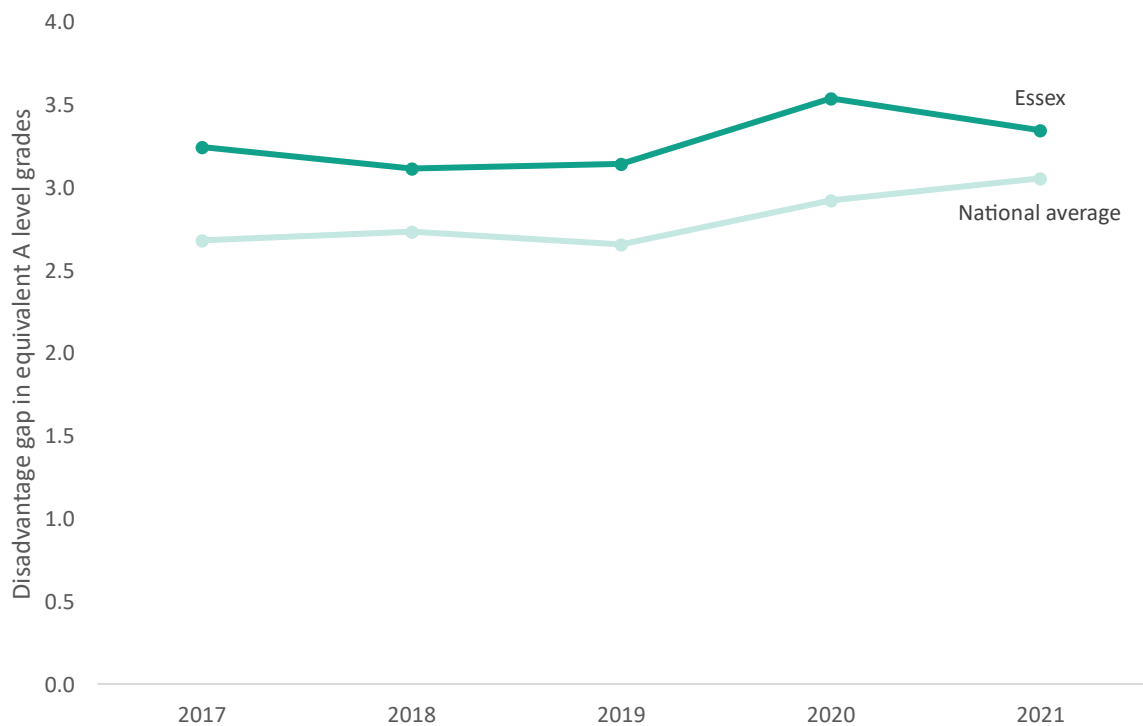
For more details on the methodology used see the EPI report ‘COVID-19 and Disadvantage Gaps in England 2021’<sup>21</sup>.

Figure 3.8 shows how the 16-19 disadvantage has changed in Essex over the last five years compared with England as a whole. Essex has had a consistently larger gap than the national average across students’ best three qualifications, although the difference between the gaps has fallen to its lowest level since 2018 in 2021 at 0.29 grades (3.35 in Essex, 3.06 nationally).

<sup>20</sup> <https://explore-education-statistics.service.gov.uk/find-statistics/a-level-and-other-16-to-18-results>

<sup>21</sup> (Tuckett et al, 2022)

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



*Source: EPI analysis of National Pupil Database (2021)*

Exam results for 16–19-year-olds, like GCSEs, were also awarded using CAGs in 2020 and TAGs in 2021, resulting in increases to average grades in both years. 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 Essex therefore may be driven by a different mix in institution types compared with England and further analysis would be required to determine this.

## Geographic comparisons within Essex

In this section we look at how performance on the key measures of attainment and the disadvantage gap varies across the 17 parliamentary constituencies in Essex. As in the previous section, we do this for key stage 4 only.

As with Essex-level gaps, parliamentary constituency gaps compare attainment of local disadvantaged pupils with the attainment of all non-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.

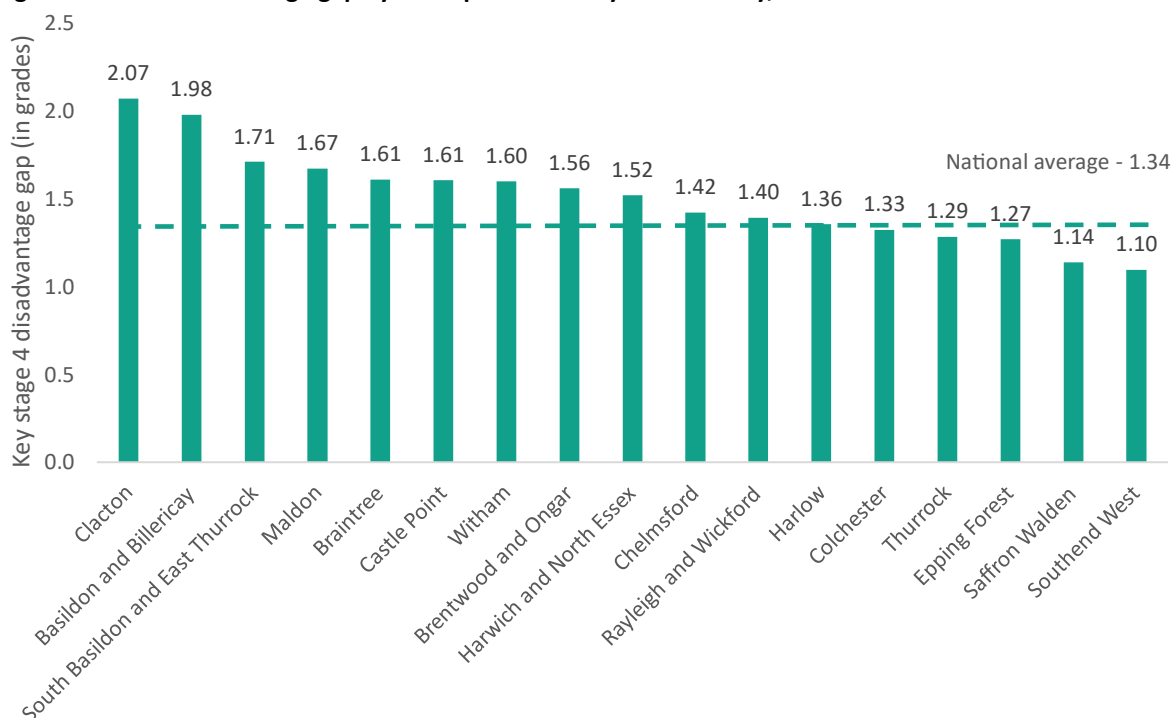
### Key stage 4

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 2021, and for Essex as a whole the average is 1.58 grades.

Figure 4.1 shows the disadvantage gap in the parliamentary constituencies of Essex. Five of the 17 constituencies in Essex have a smaller disadvantage gap than the national average: Colchester, Thurrock, Epping Forest, Saffron Walden, and Southend West. The constituencies with the largest gaps are Clacton and Basildon and Billericay.

**Figure 4.1: KS4 disadvantage gap by Essex parliamentary constituency, 2021<sup>22</sup>**

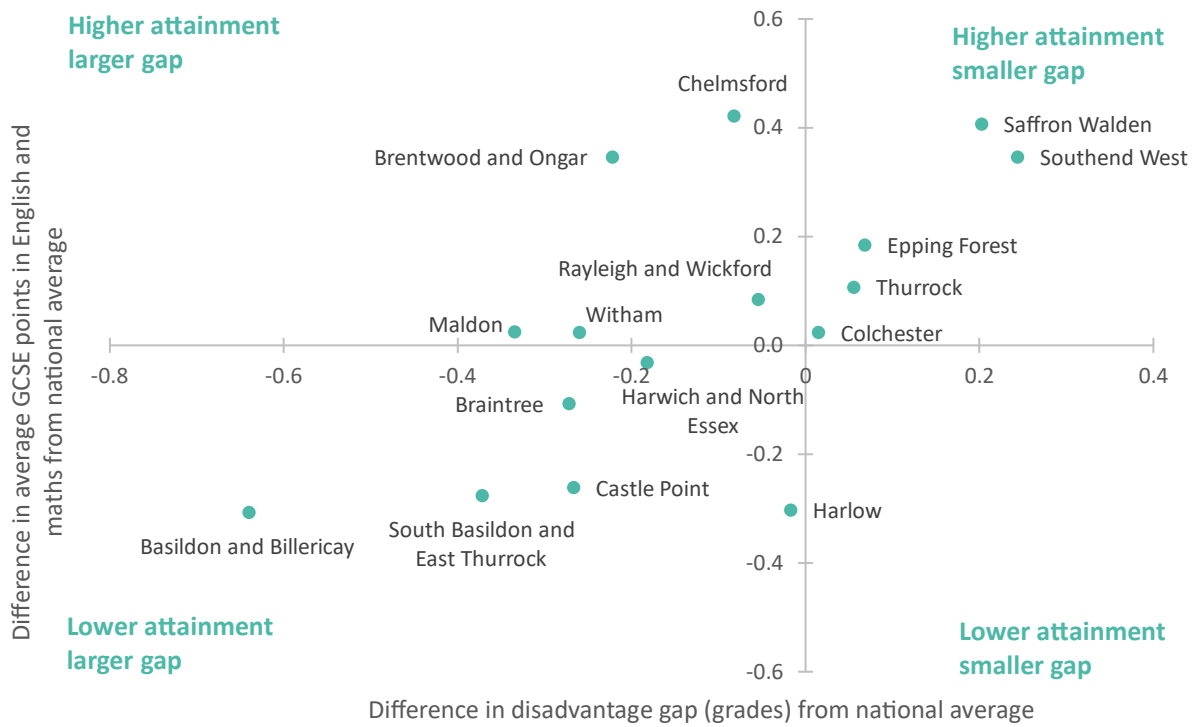


**Note on interpreting the scatter plot:** The next figure (Figure 4.2) plots the disadvantage gap against average attainment for each parliamentary constituency. We do this by finding the difference between the disadvantage gap in a given constituency and the national average, and the difference between 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).

Figure 4.2 plots the disadvantage gap against average attainment for key stage 4. Five constituencies outperform the national average in both attainment and the disadvantage gap (Colchester, Thurrock, Epping Forest, Saffron Walden, and Southend West). Six constituencies (Basildon and Billericay, South Basildon and East Thurrock, Braintree, Castle Point, Harwich and North Essex, and Harlow) have both lower attainment and a larger disadvantage gap than England as a whole. No constituencies in Essex have lower attainment than average and a gap that is below average.

<sup>22</sup> Disadvantage calculated using the FSM6 flag (pupils that were eligible for free school meals in the last six years) in the National Pupil Database. Only includes pupils at state-funded schools except for those whose sole or main registration was in alternative provision, a pupil referral unit, or a hospital school.

**Figure 4.2: Divergence from the national averages for the KS4 disadvantage gap and average points in GCSE English and maths by parliamentary constituency, 2021<sup>23</sup>**



<sup>23</sup> Disadvantage calculated using the FSM6 flag (pupils that were eligible for free school meals in the last six years) in the National Pupil Database. Only includes pupils at state-funded schools except for those whose sole or main registration was in alternative provision, a pupil referral unit, or a hospital school.

# Geographic comparisons beyond Essex

## Method

The methodology used in this section follows the method described in this report’s predecessor, published in 2022.<sup>24</sup>

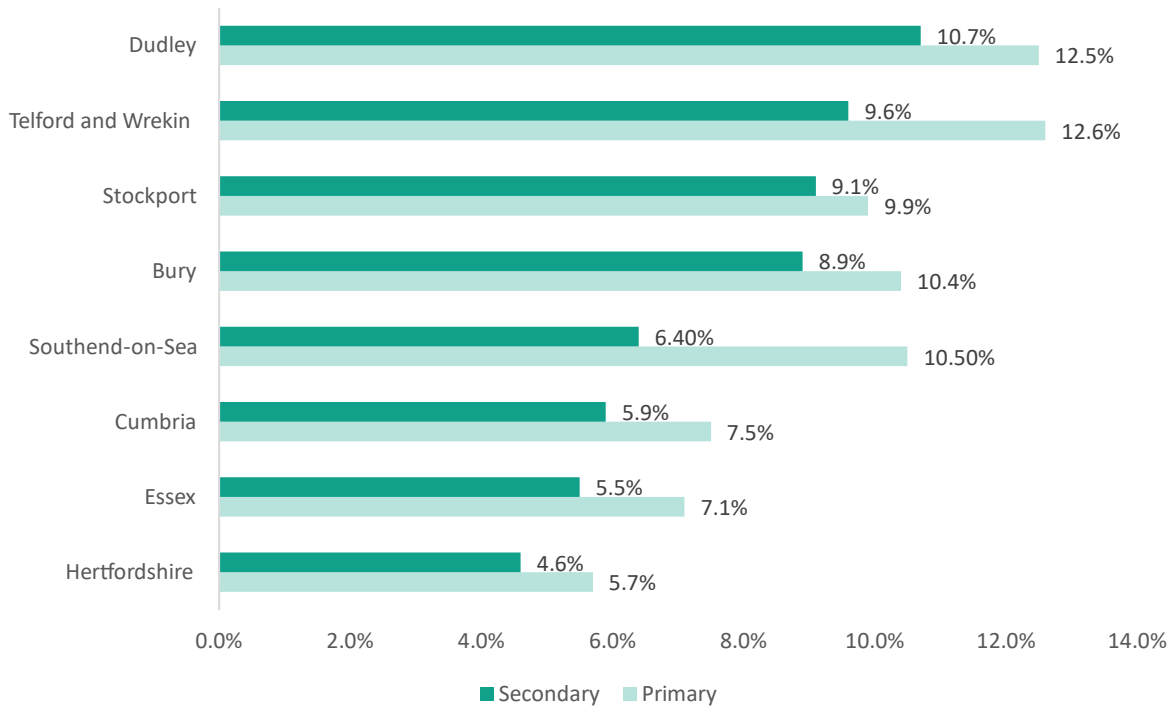
We have identified seven local authorities including two county councils to use as comparators in this analysis. The comparator LAs are Bury, Cumbria, Dudley, Hertfordshire, Southend-on-Sea, Stockport, and Telford and Wrekin.

Selection of the comparators was based on the following characteristics:

- The share of persistently disadvantaged young people from 2019 records.
- Dominant ONS neighbourhood classifications or ‘pen portraits’.

The percentage of children who are persistently disadvantaged in Essex was 7.1 per cent at primary school and 5.5 per cent at secondary school. We selected local authorities with a similar proportion, allowing the proportion in persistently disadvantaged children young people to be 5.5 percentage points higher or lower than Essex. The proportion of persistent disadvantage in our selected comparators is summarised in Figure 5.1.

**Figure 5.1: Percentage of pupils who are persistently disadvantaged in Essex and selected comparators**



Source: EPI, ‘Education Policy Institute Report to Essex Education Task Force’, 2022

<sup>24</sup> EPI, ‘Education Policy Institute Report to Essex Education Task Force’, 2022.



Of our selected comparators, only Hertfordshire has a lower share of persistent disadvantage than Essex. On average, we are therefore comparing Essex to a relatively more disadvantaged set of comparators.

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 classifications produced by the Office for 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 five main census dimensions: demographics, household composition, housing tenure, socio-economic status and employment) to classify the dominant neighbourhood types in Essex.<sup>25</sup>

**At LSOA-level, the dominant neighbourhood types in Essex are hampered neighbourhoods (13 per cent), ageing suburbanites (11 per cent) and comfortable neighbourhoods (10 per cent).<sup>26</sup>**

The share of KS4 pupils who are disadvantaged in hampered neighbourhoods is 23 per cent. People living in these neighbourhoods are less likely to be university educated and more likely to be unemployed. Illness, overcrowding and social renting are more common than average, and people mostly live in flats or terraces. Ethnic diversity is not especially high but most common ethnic minorities include people from Black and mixed ethnic groups.

By contrast, the proportion of KS4 pupils who are disadvantaged in ageing suburbanite neighbourhoods is only four per cent. Ageing suburbanites are particularly unlikely to live in socially rented accommodation and more likely to live in detached housing. There is little ethnic diversity and university education is level with average.

Finally, seven per cent of KS4 pupils living in comfortable neighbourhoods are disadvantaged. Adults in comfortable neighbourhoods are less likely to be unemployed and tend to work in industries such as construction and manufacturing. The most common highest qualification level is Level 1, Level 2 or apprenticeship, which tends to be achieved when leaving schooling aged 16. Ethnic diversity is particularly low. Social renting is still higher than average but residence in semi-detached and detached housing is also common and private rental is particularly low. Unpaid care and illness are more common than average.

Analysis of educational outcomes across these neighbourhood types finds very different outcomes for disadvantaged and non-disadvantaged pupils depending on the 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.<sup>27</sup>

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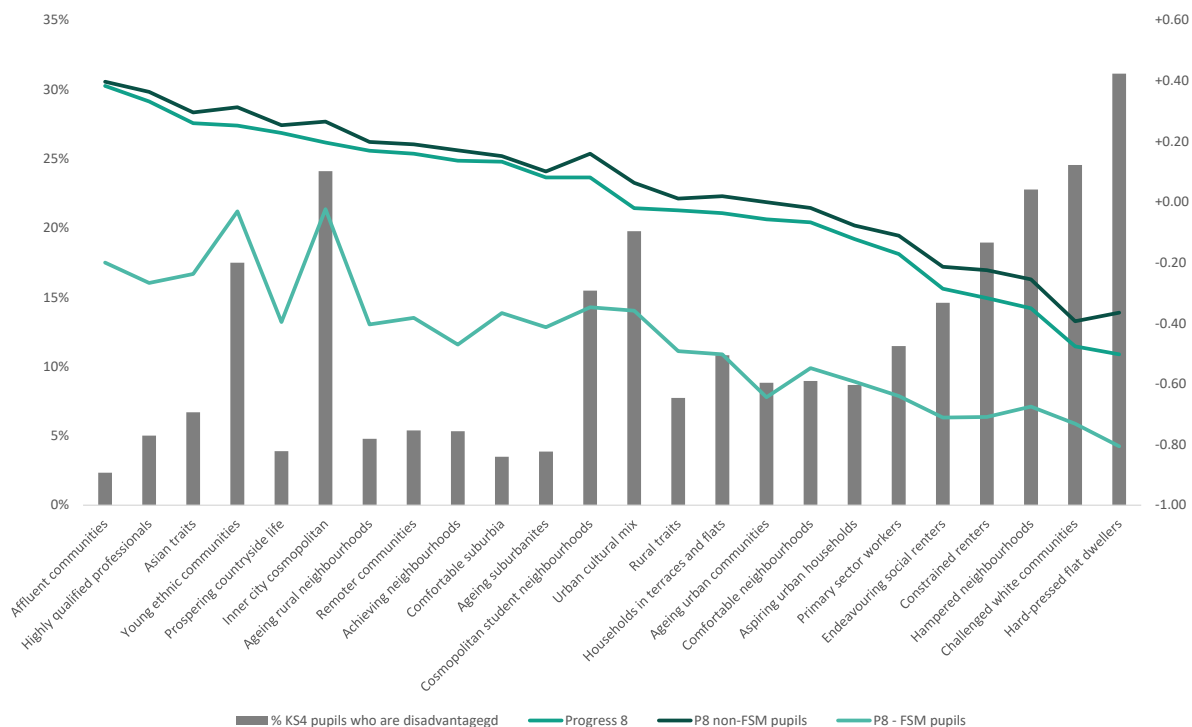
<sup>25</sup> Pen portraits and radial plots, ONS, 2018

<https://www.ons.gov.uk/methodology/geography/geographicalproducts/areaclassifications/2011areaclassifications/penportraitsandradiplots>

<sup>26</sup> In this analysis, we summarise the share of ONS pen portraits in each LA by taking the percentage of LSOAs characterised as each classification.

<sup>27</sup> 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, 'Education Policy Institute Report to Essex Education Task Force', 2022

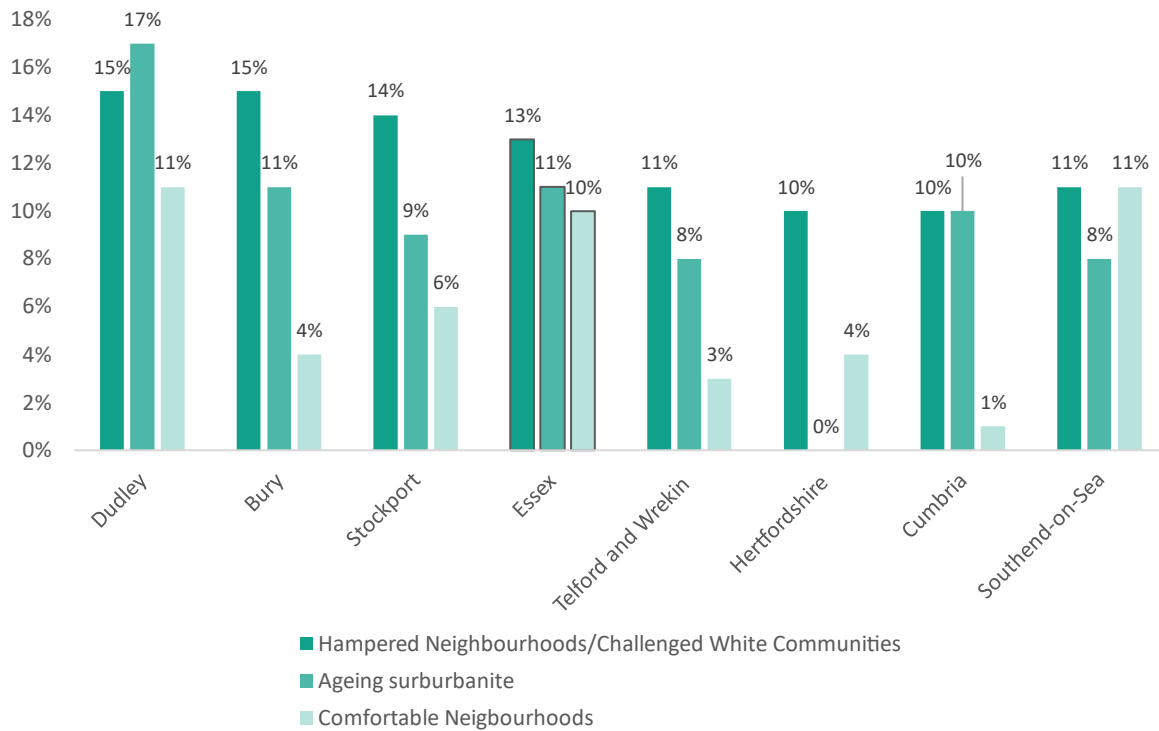
Figure 5.2 demonstrates that educational outcomes (progress 8) interact differently with poverty levels (KS4 pupils who are disadvantaged) in different neighbourhood types. For example, hampered neighbourhoods have high levels of poverty (23 per cent of KS4 pupils who live in hampered neighbourhoods 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 we should compare Essex with local authorities which have a similar social mix of neighbourhoods to Essex, over and above ensuring they have similar levels of disadvantage.**

The dominant pen portraits in Essex are hampered neighbourhoods (13 per cent), ageing suburbanites (11 per cent) and comfortable neighbourhoods (10 per cent). We specified that selected comparators must have similar shares across these neighbourhood types, within 25 percentage points of levels in Essex (Figure 5.3).<sup>28</sup>

<sup>28</sup> Cumbria has low levels of Hampered Neighbourhoods, however 10 per cent of its neighbourhoods are classed as "Challenged White Communities" which we consider to be sufficiently similar in demographics and education outcomes to substitute in this case.

**Figure 5.3: Neighbourhood classification across Essex and selected comparators, proportion of LSOAs in each LA with selected neighbourhood classification.**



Source: EPI, 'Education Policy Institute Report to Essex Education Task Force', 2022

While the mix of neighbourhood classifications in Cumbria and Hertfordshire are not as similar to Essex as the other LAs, we include them because, given they are county councils, they have more similarities to Essex in terms of governance and population size.

### Geographic comparisons beyond Essex: attainment and disadvantage

Figure 5.4 shows how the KS4 disadvantage gap varies across the comparators. All the comparators have a larger gap than the national average, with the exception of Stockport, which has the same gap as England as a whole at 1.34 grades.

Essex has the second largest gap in 2021 behind Telford and Wrekin at 1.58 grades.

**Figure 5.4: Key stage 4 disadvantage gap in Essex and selected comparators, 2021<sup>29</sup>**

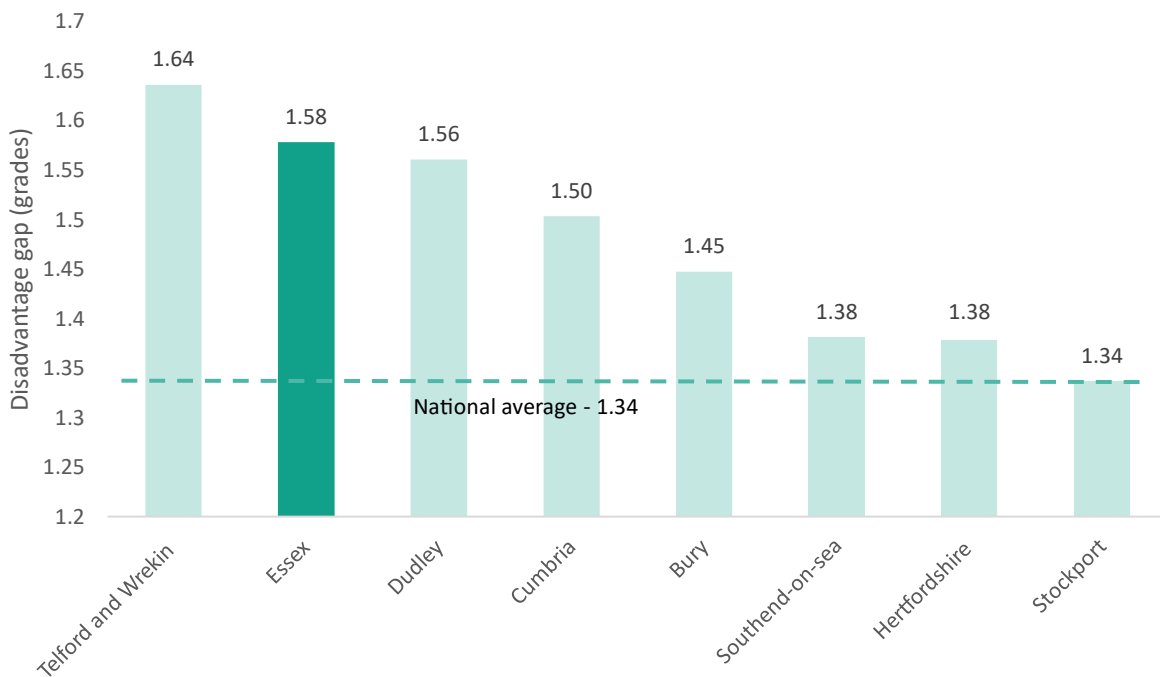
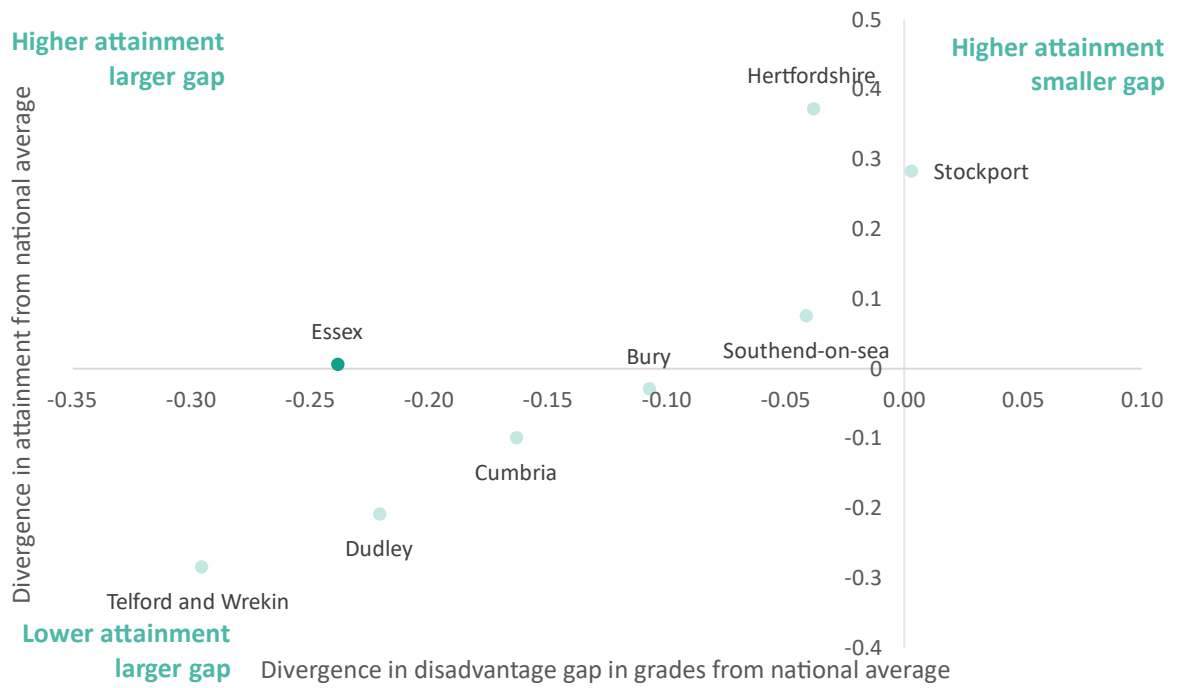


Figure 5.5 plots the attainment and disadvantage gaps of the comparators against the national average.

Essex has the third highest average attainment behind Hertfordshire, Stockport, and Southend-on-Sea at 4.96 points (compared to the national average of 4.95 points). Of the selected comparators, only Stockport has both higher attainment than the national average and a disadvantage gap equal to or smaller than England as a whole.

<sup>29</sup> Disadvantage calculated using the FSM6 flag (pupils that were eligible for free school meals in the last six years) in the National Pupil Database. Only includes pupils at state-funded schools except for those whose sole or main registration was in alternative provision, a pupil referral unit, or a hospital school.

**Figure 5.5: Divergence from the national averages for the KS4 disadvantage gap and average points in GCSE English and maths, Essex and selected comparators, 2021<sup>30</sup>**



<sup>30</sup> Disadvantage calculated using the FSM6 flag (pupils that were eligible for free school meals in the last six years) in the National Pupil Database. Only includes pupils at state-funded schools except for those whose sole or main registration was in alternative provision, a pupil referral unit, or a hospital school.

## Appendix – pupil numbers in Essex by disadvantage status

Year	KS4	
	Disadvantaged pupils	Persistently disadvantaged pupils
2011	3070	765
2012	3220	790
2013	3020	745
2014	2950	735
2015	2770	805
2016	2730	725
2017	2970	800
2018	2785	780
2019	2860	905
2020	2745	990
2021	2525	730