

The GCSE attainment gap: Assessing the influence of permanent school exclusion

Stephen Hills¹  | Matthew Walker²  | James Guinn³  |
Aubrey Kent⁴ 

¹Guildhall School of Business and Law, London Metropolitan University, London, UK

²G. Brint Ryan College of Business, University of North Texas, Frisco, Texas, USA

³Department of Kinesiology and Sport Management, Texas A&M University, College Station, Texas, USA

⁴School of Sport, Tourism and Hospitality Management, Temple University, Philadelphia, Pennsylvania, USA

Correspondence

Stephen Hills, Guildhall School of Business and Law, London Metropolitan University, 166-220 Holloway Rd, London N7 8DB, UK.
Email: s.hills@londonmet.ac.uk

Abstract

Permanent school exclusions continue to be a topic of keen interest to UK schools and policymakers. The debate over the practice has recently intensified owing to the perceived negative outcomes directly resulting from the exclusion event. Research has indeed shown that pupils who have been permanently excluded are at a greater risk for a variety of negative life outcomes when compared with their non-excluded peers. However, that disadvantaged groups are disproportionately represented among those excluded has not been accounted for in empirical testing. Accordingly, previous measures of the influence of permanent exclusion may have over-estimated its negative consequences because they have not controlled for disadvantageous pupil characteristics. This is a critical limitation of the research owing to the influence of confounding variables and sample selection bias. Using the National Pupil Database and a full cohort of UK pupils ($N=590,092$), our analysis tracked a sample of 1490 pupils permanently excluded in year 11 of the English education system in 2018/2019. Using capped GCSE points as the academic attainment variable, we find that permanently excluded pupil scores were nearly 25 points lower than their non-permanently excluded peers. However, when controlling for disadvantageous pupil characteristics, this difference was cut roughly in half. As such, we conclude that permanent exclusion is neither the catalyst of disadvantage nor a continuation

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial](https://creativecommons.org/licenses/by-nc/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes.

© 2025 The Author(s). *British Educational Research Journal* published by John Wiley & Sons Ltd on behalf of British Educational Research Association.

of disadvantage on the same trajectory, but rather an accentuation of existing disadvantage. In other words, the existing trajectory of disadvantage gets steeper following the permanent exclusion event. Therefore, considering that the GCSE attainment gap found is equally attributable to both permanent exclusion and disadvantageous pupil characteristics, policymakers should both limit permanent exclusion to being a last resort and provide additional support for pupils at risk of being permanently excluded. Including a permanently excluded pupil's GCSE attainment in their former school's academic league table data incentivises schools to act in the best interests of these highly disadvantaged and vulnerable pupils.

KEYWORDS

academic attainment, disadvantage, exclusion, schools

Key insights**What Is the Main Issue that the Paper Addresses?**

Schools in England make much greater use of permanent exclusion than their counterparts in the rest of the United Kingdom despite considerable evidence of the negative effects of permanent exclusion. There is also evidence that permanently excluded pupils are disproportionately disadvantaged, such that prior measurements of the effect of permanent exclusion may be over-estimations owing to not controlling for disadvantageous pupil characteristics.

What Are the Main Insights that the Paper Provides?

When controlling for disadvantageous pupil characteristics, the negative influence of permanent exclusion on GCSE attainment halves. This means the decision by a school to permanently exclude does not alone predict lower GCSE attainment, but also prior disadvantages. As well as reducing permanent exclusions by only using them as a last resort, greater focus should be given to alleviating the disadvantage of pupils at risk of being permanently excluded. Including an excluded pupil's GCSE attainment in their former school's academic league data will incentivise schools to act in the best interests of their disadvantaged and vulnerable pupils at risk of being excluded.

Each year thousands of pupils are permanently excluded from schools in England at a considerable cost to British communities and UK society as a whole (Department for Education, 2023; Parsons & Castle, 1998). School exclusions are largely considered an extreme form of discipline that heightens inequalities and are regarded as the first step in exclusion from mainstream society (Blyth & Milner, 1993; Kulz, 2019). There is also consensus

that permanently excluded pupils are at a greater risk of variety of negative outcomes than their non-excluded peers (Pirrie et al., 2011), which include crime, drug use and other anti-social behaviours (Berridge et al., 2001; Daniels & Cole, 2010; Hodgson & Webb, 2005; McCrystal et al., 2007; Pritchard & Cox, 1998). Research has found that excluded pupils have limited aspirations owing to stymied academic attainment and limited career prospects owing to being outcasts from their mainstream peers (Berridge et al., 2001; Daniels & Cole, 2010; Mainwaring & Hallam 2010). Despite this evidence, UK schools still support the practice and the number of those excluded continues to rise.

Permanent exclusions are less frequent in the rest of the United Kingdom, for example Scotland, where exclusions are near zero (Duffy et al., 2021; McCluskey et al., 2019). Countries like Scotland have learned what the rest of the world is starting to realise—the negative consequences of permanent exclusion have been over-estimated and improperly communicated. That stated, we must acknowledge that permanently excluded pupils are also disproportionately disadvantaged in terms of special education needs, disabilities (Bowman-Perrott et al., 2013; Krezmien et al., 2006; Strand & Fletcher, 2014), low socio-economic status (Strand & Fletcher 2014) and minority status (Achilles et al., 2007; Demie, 2021; Krezmien et al., 2006; Strand & Fletcher, 2014). These factors contribute to excluded pupils being arguably the most vulnerable in UK society and the ones most in need of better forms of intervention.

Using General Certificate of Secondary Education (GCSE) attainment of a full cohort of pupils in England, the purpose of our study was to assess the academic attainment gap between permanently excluded pupils and non-permanently excluded pupils. To this end, we provide a raw measurement of the GCSE attainment gap compared with an adjusted measurement of the GCSE attainment gap that controlled for disadvantageous pupil characteristics. This was done so as to assess the relative influence of permanent exclusion vs. disadvantaged characteristics, adding to the debate on whether permanently excluded pupils should be supported or blamed and punished (see MacRae et al., 2003; Parsons, 2005).

Negative consequences of permanent exclusion

Criminal and anti-social Behaviours

Empirical research into the negative consequences school exclusion has focused on the criminal and anti-social behaviours of excluded pupils and the subsequent education and employment outcomes achieved by these young people. For example, Pritchard and Cox (1998) tracked a full cohort of 227 permanently excluded pupils in England. From their research, the authors determined that 63% of their sample went on to obtain criminal convictions between the age of 16 and 23 years old—averaging 7.4 offences each. The authors estimated this rate of criminal convictions cost UK taxpayers £4.16 million. However, the authors of the study failed to measure criminal convictions prior to permanent exclusion, which is a significant limitation not acknowledged in the research. Hodgson and Webb (2005) interviewed 56 permanently excluded pupils and found that while 40 had offended, 36 of these had commenced their offending prior to exclusion. In addition, 50 of the 56 reported that they felt no more likely to offend subsequent to being permanently excluded.

Berridge et al. (2001) studied the effects of permanent exclusion on the offending careers of young people from a population of 343 permanently excluded pupils, over six different local authorities in England. The authors were able to access the complete police records of 263 excluded pupils, from which 117 (i.e. 44% of the sample) had no recorded offences prior to permanent exclusion but a record of offending following permanent exclusion. These results suggest that the permanent exclusion event was a contributing factor to these young

people's offending career. In particular, 13 of these individuals began their criminal career in the same month that they were excluded. The authors found that for 132 individuals (i.e. 50% of the sample), permanent exclusion did not alter the trajectory of their offending career, as 47 young people had recorded offences before and after permanent exclusion and 85 had no recorded offences prior to or following exclusion.

Daniels and Cole (2010) attempted to track the trajectory of a non-random sample of 141 permanently excluded pupils from a population of 480 drawn from 10 local education authorities in England. Interviews following permanent exclusion and follow-up interviews 2 years later revealed that 55% had, or were believed to have, offended in the intervening time period. However, 39% of the sample were offenders prior to exclusion. This means that for the majority of the sample, there was no change in trajectory in relation to offending. McCrystal et al. (2007) similarly tracked the drug use and anti-social behaviour of permanently excluded pupils in the UK via four annual surveys from when participants were 11 years old until they were 15 years old. Over the 4 years, the authors found that permanently excluded pupils were more likely to use drugs than their non-excluded counterparts, and that other anti-social behaviour escalated from year two onwards.

Education and employment prospects

Daniels and Cole (2010) tracked 141 excluded pupils and collected the academic attainment data for 91 (72%) of them. The authors found that 17 out of 91 (19%) permanently excluded pupils achieved one or more GCSEs at grade A–C. Via follow-up interviews, the researchers noted conflicting responses. Although half of the (tracked) permanently excluded pupils viewed their exclusion as having a damaging effect on their life trajectory, an equal amount viewed the event as having had a positive effect on their lives by providing opportunities that were only made available to them as a result of exclusion. For example, Berridge et al. (2001) found that nearly half of the permanently excluded young people they interviewed were either employed or in alternative education. Mainwaring and Hallam (2010) asked a sample of 25 pupils (i.e. 16 excluded from mainstream school and nine current school pupils) to imagine their 'possible selves' in order to understand their aspirations and life perceptions. Not surprisingly, 100% of the currently schooled pupils were more likely to have positive 'possible selves', compared with just 69% of the permanently excluded pupils.

Disadvantageous pupil characteristics

Analysis of permanently excluded pupil demographics highlights that certain groups are disproportionately represented with regard to special education needs and disabilities, socio-economic status, gender, ethnicity and prior attainment. As well as predicting permanent exclusion, these characteristics are associated with academic attainment, including GCSE attainment.

Special education needs and disabilities

Excluded pupils are disproportionately disadvantaged in terms of special education needs and disabilities. Krezmien et al. (2006), using data collected in the state of Maryland in the United States, found that pupils with emotional disturbances and those with a learning disability were more likely to be excluded. Bowman-Perrott et al. (2013) extended the work of Achilles et al. (2007), using a Special Education Elementary Longitudinal Study approach. The authors

collected data from a sample of 1824 pupils with the following learning disabilities: emotional or behavioural disorder, attention-deficit/hyperactivity disorder, learning disability or other health impairment. They found that pupils with emotional or behavioural disorder were more likely to be excluded than pupils with a learning disability. The authors also noted that pupils with attention-deficit/hyperactivity disorder were more likely to be excluded than pupils with a learning disability. Using a nationally representative sample of 15,000 pupils with special education needs in England, Humphrey et al. (2013) found that pupils with special education needs were at greater risk of poor academic attainment. Similarly, Velthuis et al. (2018) found that only 24% of pupils with special education needs achieved a C or better in English and maths, which was the lowest percentage across all pupil characteristics measured. Other work follows this same track (see also Gross & McChrystal, 2001; Strand & Fletcher, 2014). The caveat here is that these studies were all limited in terms of the comparisons with those with no disabilities.

Socio-economic status

Excluded pupils are disproportionately disadvantaged in terms of low socio-economic status. Achilles et al. (2007) found that socio-economic status was negatively associated with likelihood of being excluded. Strand and Fletcher (2014) found that pupils who were entitled to free school meals, which was used as a proxy for poverty, were more likely to be excluded than pupils not entitled to free school meals. Shuttleworth (1995), Gorard (2012) and Ilie et al. (2017) found that free school meal eligibility is an indicator of deprivation and that it was associated with lower GCSE attainment. Farquharson et al. (2024) showed that pupils not eligible for free school meals were three times more likely to achieve above the expected level of GCSE attainment.

Looked after

Strand and Fletcher (2014) also found that pupils who had been 'looked-after' by their local authority, such as living in a children's home, are more likely to be excluded. Furthermore, according to Harland (2014), looked-after pupils have significantly lower academic attainment than their non-looked-after counterparts. Harland (2014) also found the lower academic attainment of looked-after pupils was due to stereotyping, lower expectations and the environment of being 'in care'. Luke et al. (2015) found that looked-after pupils had lower GCSE attainment than their counterparts and Fletcher et al. (2015) found that looked-after pupils had worse educational experiences, including more school changes, lower attendance and more exclusion.

Gender

Males are consistently more likely to be excluded than females. This is evident in both the United States as well as England (see Achilles et al., 2007; Bowman-Perrott et al., 2013; Strand & Fletcher, 2014). However, it should be noted that although males remain more likely to be excluded than females in England, there have been substantial increases in the number of girls being permanently excluded (Clarke, 2024). On average, the GCSE attainment of females is higher than that of males while the gender gap narrowed by nearly 4% during 2021–2024 (FFT Education Datalab, 2024). These data perhaps help explain the historical relationships between school attainment, socio-economic status and gender in the United Kingdom from 2000 to 2012. Early et al. (2020) concluded that gender was a statistically significant indicator of attainment.

Ethnicity

In the United States, Krezmien et al. (2006), Achilles et al. (2007) and Bowman-Perrott et al. (2013) all found that Black pupils were more likely to be excluded than White pupils. In England, Strand and Fletcher (2014) found that Black Caribbean pupils were more likely to be excluded than White British pupils. Demie (2021) reported that Black Caribbean pupils were nearly four times more likely to receive a permanent exclusion than the school population as a whole, which were attributed to institutional racism, teachers' low expectations, a lack of diversity in school staff and lack of training in multicultural education. Similarly, via an ethnography of schools in an urban area of the South of England, Carlile (2012) concluded that institutionalised racism played a role in the administration of permanent exclusions.

Strand (2013) found that the academic attainment gap between White British and several ethnic minority groups was large. Li (2021) used the Longitudinal Study of Young People in England to show that ethnic minorities had lower GCSE attainment. Jackson (2012) similarly found gross ethnic inequalities in GCSE attainment in England and Wales.

Language

Clegg et al. (2009) found that language abilities was associated with risk of being permanently excluded. Of 15 pupils identified as at risk of being permanently excluded from a mainstream school located in an area of socio-economic deprivation, 10 were found to have language difficulties, five of whom had significant and severe language difficulties. Strand et al. (2015) identified an academic attainment gap between pupils who had English as a first language and pupils who had English as an additional language. This gap was found to be greater in reading than maths and decreased with age. Demie and Strand (2006) found a strong relationship between fluency in English and GCSE attainment, whereby pupils with a low level of fluency performed at very low levels, but fully fluent bi-lingual pupils had higher levels of GCSE attainment than English-only speakers.

Prior academic attainment

Strand and Fletcher (2014) found a strong negative relationship between the Key Stage-2 English test at the end of primary school and school exclusion rate whereby the greater the score on the English test, the lower the likelihood of exclusion. Lessof et al. (2018) found that prior attainment at Key Stage-2 was a significant predictor of subsequent GCSE attainment.

What this literature suggests is that the concentration is on the United Kingdom and United States, despite no context restrictions being used when undertaking the literature search. Research in other contexts, in particular developing countries, focuses on drop outs, rather than exclusions, where the leaving of school is the decision of the pupil or family rather than the school itself (Wong, 2023). Given this difference, the drop-out literature was not considered sufficiently relevant to inform this study's conceptual framework and was therefore omitted from inclusion or discussion.

Hypothesis development

Our study adds to the literature regarding the negative consequences of permanent exclusion. To do so, we specifically considered the implications of permanent exclusion, rather than fixed-term exclusions. We took this track owing to consensus in the literature that pupils

who have been permanently excluded from school are at a far greater risk of a variety of negative outcomes than pupils who have not been excluded (Pirrie et al., 2011). Of the studies that considered education outcomes of permanently excluded pupils, none have compared permanently excluded and non-permanently excluded pupils in terms of academic attainment. Although Daniels and Cole (2010) tracked permanently excluded pupils to their GCSEs, they failed to compare their sample in order to establish a counterfactual. And although Mainwaring and Hallam (2010) compared permanently excluded and non-permanently excluded pupils, their sample size was qualitatively and structurally limited. Accordingly, our is among the first to consider the influence of permanent exclusion on a measure of academic attainment by comparing permanently excluded pupils with the counterfactual of pupils that have not been permanently excluded.

Specifically, like Daniels and Cole (2010), our study measured the influence of permanent exclusion on GCSE attainment. And whereas the authors measured pupils involved in education or training and the range of GCSEs studied, our approach measured GCSE at a more granular level in terms of the discrete variable of capped GCSE points. Performance in these exams has been found to be 'critical to future trajectories and life chances' (Lupton et al., 2021, p. 3) as they are the gateway to continued education. For example, Lupton et al. (2021) found that lower attainers often feel like failures and feel less confident about their futures. The authors also noted the lower attainers were overlooked and underserved in terms of career advice, guidance and social support. The authors further noted that even apprenticeships, which are assumed to be a more accessible pathway for lower attainers, were not a common destination for low attainers. Parsons and Elliot Major (2024) found that pupils who failed to get basic GCSE grades were less likely to be in education, employment or training, and were less likely to expect to go to university or to have professional or managerial aspirations.

GCSE attainment has far-reaching consequences beyond just future educational attainment. For example, Sabates (2008) found that low GCSE attainment was associated with juvenile crime (e.g. burglary, theft, criminal damage and drug-related offences). Parsons and Elliot Major (2024) noted that pupils who did not achieve basic GCSE grades were more likely to be in poor or fair health or to have a longstanding illness. The authors also noted that lower GCSE achievers are more likely to smoke or vape, take drugs, be stopped and questioned or formally cautioned by the police, to engage in underage sex and to attempt suicide. To compare the GCSE attainment of permanently excluded and non-permanently excluded pupils the following hypothesis was tested:

Hypothesis 1. GCSE attainment between permanently excluded pupils and non-permanently excluded pupils will significantly differ.

A causal relationship is most effectively achieved by an experimental design, whereby there is control over variables and the environment (Burtless, 1995). However, randomly assigning pupils to be permanently excluded from school is both unethical and impossible. Although adjustment methods cannot remove selection bias for unobserved differences, they can be used to remove selection bias for observed differences (Burtless, 1995). A comparison of permanently excluded and non-permanently excluded pupils was undertaken by Mainwaring and Hallam (2010) upon 'possible selves' and by McCrystal et al. (2007) upon drug use and anti-social behaviour. However, neither made use of adjustment methods to limit selection bias. This means that the influence of permanent exclusion was over-estimated because confounding variables were not controlled for.

Our study is the first to measure any consequence of permanent exclusion by using adjustment methods to control for selection bias. Specifically, previous research into predictors of permanent exclusion identified several disadvantageous pupil characteristics as

potentially confounding variables. In order to properly examine the influence of these factors, we held them constant in a multiple linear regression model. Doing so should provide a measurement of the influence of permanent exclusion adjusted for disadvantageous pupil characteristics that predict both permanent exclusion and GCSE attainment. To achieve this end, the following hypothesis was tested:

Hypothesis 2. The difference in GCSE attainment between permanently excluded pupils and non-permanently excluded pupils will decrease when disadvantageous pupil characteristics that predict both exclusion and academic attainment are held constant.

In order to add to the debate on whether permanently excluded pupils should be supported rather than blamed and punished (see MacRae et al., 2003; Parsons, 2005), our study assessed the relative influence of permanent exclusion and disadvantageous pupil characteristics. Whereas previous research has either measured the disadvantages that predict permanent exclusion or the disadvantages that follow permanent exclusion, our study was the first to bring these two lines of research together in a single piece of research. The preceding commentary underscores the importance of two measures of the GCSE attainment gap between permanently excluded pupils and non-permanently excluded pupils: (1) an unadjusted measure; and (2) an adjusted measure controlling for disadvantageous pupil characteristics. By calculating a ratio of these two measures, our study assessed the relative influence of being permanently excluded vs. disadvantageous pupil characteristics.

In order to reduce causal inference limitations by making use of a counterfactual and controlling for certain confounding variables, our study curtailed the population inference limitations seen in existing research. For example, Hodgson and Webb (2005) interviewed only 56 permanently excluded pupils when drawing their conclusions; Berridge et al. (2001) tracked a non-random sample of only 263 excluded pupils; Daniels and Cole (2010) tracked a non-random sample of 141 permanently excluded pupils; McCrystal et al. (2007) compared a non-random sample of 51 permanently excluded pupils with approximately 4000 non-permanently excluded pupils; Mainwaring and Hallam (2010) compared a non-random sample of only 16 permanently excluded pupils and nine non-permanently excluded pupils. What these studies have in common is the use of small and non-random samples, which limit the generalisability of existing knowledge on the negative consequences of permanent exclusion. In contrast, Strand and Fletcher (2014) made use of the National Pupil Database to access a population of a whole cohort of over 500,000 pupils in England so to establish highly externally valid predictors of exclusion. Like Strand and Fletcher (2014), our study will access a population of a whole cohort of pupils in England through the National Pupil Database in order to establish a highly externally valid consequence of permanent exclusion.

METHOD

Sample

The data for our study comes from England's National Pupil Database, which is controlled by the Department for Education and contains data on all pupils in state-funded education. The database is sourced primarily by returns from schools that are provided three times a year by the school census. The data is then matched using names, dates of birth and other factors. In 2017/2018, 7905 pupils were permanently excluded from mainstream schools in England, the largest group being 2040 who were in year 10—the year before they were due to take their GCSE examinations (Department for Education, 2019). Our

study tracks these students to their GCSE examinations the following year—2018/2019 when these pupils were then in year 11 of their schooling (i.e. the final year of compulsory education when pupils take their GCSE examinations)—comparing them with those non-permanently excluded. The total population consisted of 590,092 pupils for whom data on all variables were available. The dataset included 1490 permanently excluded pupils (0.3%) who were compared with 588,602 pupils who had not been permanently excluded (99.7%). The sample was evenly distributed between females (49.1%) and males (50.9%). The majority of pupils were in the second (39.3%) and third quartiles (38.1%) of prior academic attainment. The majority of pupils (68.1%) were not of an ethnic minority (68.1%) and had English as a first language (84.9%). Less than 1% had been looked after by a local authority but nearly a quarter were eligible for free school meals (23.5%) and over one-fifth had identified special needs (21.3%).

Variables

Dependent variable

Our study sought to establish the influence of being permanently excluded on academic attainment, for which results from GCSE examinations are being used. Pupils are required to take a minimum of five subject but most pupils take nine subjects, which must include English, maths and science. Each GCSE is marked on a scale of '1' to '9' as well as a grade of 'U', which means 'ungraded'. A pupil's capped GCSE score is the cumulative score of their English, maths and science GCSEs plus their next best six subjects, for a cumulative total GCSE score. A perfect performance of nine GCSEs graded as 9e would accrue a maximum score of 81. The capped score, rather than uncapped score, was used as a control for the number of GCSE subjects taken. In other words, this was done so that a high score is more representative of quality of educational attainment than the quantity of subjects taken. The discrete data were taken from the National Pupil Database's Key Stage Four Data Table for 2018–2019, which was restricted to the sample of year 11. The dataset does not include results from compulsory resits after year 11 such that GCSE scores in this study are based upon just the single and first attempt.

Independent variable

The independent variable of interest was permanent exclusion. For consistency and controlling for time, this variable was operationalised as a pupil having been permanently excluded in year 10 of the 2017–2018 school year. This variable was selected because it is the school year when the most permanent exclusions occurred (Department for Education, 2019). This dichotomous measure was taken from the National Pupil Database's Exclusions Data Table for 2017–2018, which was restricted to cases of year 10 pupils being permanently excluded. Given that the data were drawn from a separate data table to the National Pupil Database's Key Stage Four Data Table for 2018–2019, from which the dependent variable measure was taken, it was necessary to use the pupil matching reference number to match the data and code each pupil in terms of having been permanently excluded in year 10 (yes = 1; no = 0).

Control variables

Pupil characteristics available in the National Pupil Database were controlled for if established in the literature as being associated with both the independent variable of permanent

exclusion and the dependent variable of academic attainment, so to avoid spurious associations. Gender is associated with both exclusions (Achilles et al., 2007; Bowman-Perrott et al., 2013; Strand & Fletcher, 2014) and academic attainment (Early et al., 2020; FFT Education Datalab, 2024). Gender was available as a dichotomous variable (coded as male=1; female=0) in the National Pupil Database. Prior academic attainment is associated with both exclusions (Strand & Fletcher, 2014) and subsequent academic attainment (Lessof et al., 2018). The National Pupil Database recorded prior academic attainment at the end of year 6 (i.e. the end of key stage 2) based upon the SAT school-administered tests for reading, writing, and maths, which was coded a discrete variable from 1 to 4. Ethnicity is associated with both exclusions (Achilles et al., 2007; Bowman-Perrott et al., 2013; Carlile, 2012; Demie, 2021; Krezmien et al., 2006; Strand & Fletcher, 2014) and academic attainment (Jackson, 2012; Strand, 2013). From a long list of ethnicity categories recorded in the National Pupil Database, ethnicity was recoded as a dichotomous variable with all White ethnicities (i.e. non-ethnic minorities) coded as 0 and all other ethnicities (i.e. ethnic minorities) coded as 1. Language ability is associated with both exclusions (Clegg et al., 2009) and academic attainment (Demie & Strand, 2006; Strand et al., 2015). Whether English was a pupil's first language was available as a dichotomous variable (yes=1; no=0) in the National Pupil Database. Looked-after status is associated with both exclusions (Strand & Fletcher, 2014) and academic attainment (Fletcher et al., 2015; Harland, 2014; Luke et al., 2015). In the context of the National Pupil Database, pupils are classified as looked-after if they have been in the care of their local authority for 1 day or more during 2018–2019, which was available as a dichotomous variable (yes=1; no=0). Socio-economic status is associated with both exclusions (Achilles et al., 2007; Strand & Fletcher, 2014) and academic attainment (Farquharson et al., 2024; Gorard, 2012; Ilie et al., 2017; Shuttleworth, 1995). A measure of socio-economic status available in the National Pupil Database is eligibility for free school meals in the previous 6 years, which was available as a dichotomous variable (yes=1; no=0). Having special education needs is associated with both exclusions (Achilles et al., 2007; Bowman-Perrott et al., 2013; Krezmien et al., 2006; Strand & Fletcher, 2014) and academic attainment (Humphrey et al., 2013; Velthuis et al., 2018). Having a special education need was available in the National Pupil Database as a dichotomous variable (coded as yes=1; no=0). Data for all control variables were taken from the National Pupil Database's Key Stage Four Data Table for 2018–2019 (Tables 1 and 2).

Analytic approach

Using Statistical Package for the Social Sciences, our analytical procedure began with a comparison of mean averages of capped GCSE points between non-permanently excluded pupils and permanently excluded pupils. To accomplish this, we used an independent-samples *t*-test to provide an unadjusted measurement of the GCSE attainment gap between permanently excluded pupils and non-permanently excluded pupils. Next, a multiple linear regression model was constructed to measure the influence of the independent variable of permanent exclusion on the dependent variable of capped GCSE points (i.e. holding constant the control variables of prior academic attainment, gender, ethnicity, first language, looked-after status, free school meal eligibility and having a special education need). Holding these measures constant provided an adjusted measurement of the GCSE attainment gap between permanently excluded pupils and non-permanently excluded pupils. The multiple linear regression formula is expressed as follows:

$$Y_i = \alpha + \beta_1 X_{i1} + \dots + \beta_k X_{ik} + \varepsilon_i$$

TABLE 1 Participant characteristics.

	<i>n</i> (%)
Permanently excluded	
No	588,602 (99.7%)
Yes	1490 (0.3%)
Gender	
Female	289,843 (49.1%)
Male	300,249 (50.9%)
Prior attainment	
One	55,045 (9.3%)
Two	231,845 (39.3%)
Three	224,997 (38.1%)
Four	78,205 (13.3%)
Ethnic minority	
No	402,105 (68.1%)
Yes	187,987 (31.9%)
English as first language	
No	88,941 (15.1%)
Yes	501,151 (84.9%)
Looked after	
No	584,734 (99.1%)
Yes	5358 (0.9%)
Free school meals	
No	451,514 (76.5%)
Yes	138,578 (23.5%)
Special education needs	
No	464,396 (78.7%)
Yes	125,696 (21.3%)
Total	590,092 (100%)

where Y is the outcome variable, X_k refers to the explanatory variables, α is the intercept, β_k is the regression coefficient for the variable k and ε accounts for the residual. Lastly, the unadjusted and adjusted GCSE attainment gaps were compared in terms of a ratio (i.e. the coefficient of the independent variable of permanent exclusion from the multiple linear regression was divided by the mean difference in the independent-samples t -test analysis). This was done in order to determine the extent of the GCSE attainment gap that could be attributed to being permanently excluded and the extent to which it could be attributed to prior academic attainment and disadvantageous pupil characteristics.

RESULTS

The results of the analyses indicate that permanently excluded pupils had statistically significantly lower capped GCSE points (8.94 ± 9.84) when compared with non-permanently excluded pupils (33.58 ± 17.24), a mean difference of 24.64, $t(1512.21) = 96.22$, $p < 0.001$. In other words, non-permanently excluded pupils scored 3.76 times more GCSE points than

TABLE 2 Linear regression for academic attainment.

	β	SE	t-Value	p-Value
Constant	20.55	0.07	298.89	<0.001
Permanently excluded (vs. not)	-12.49	0.37	-33.53	<0.001
Male (vs. female)	-3.97	0.04	-106.06	<0.001
Prior attainment (1–4)	7.67	0.02	318.18	<0.001
Ethnic minority (vs. not)	-0.35	0.05	-7.28	<0.001
English as first language (vs. not)	1.08	0.06	18.35	<0.001
Looked after (vs. not)	-9.28	0.2	-46.98	<0.001
Free school meals (vs. not)	-6.3	0.05	-137.19	<0.001
Special education needs (vs. not)	-14.26	0.05	-293.12	<0.001

permanently excluded pupils. Therefore, Hypothesis 1 that GCSE attainment between permanently excluded pupils and non-permanently excluded pupils will significantly differ was accepted. When holding constant disadvantageous pupil characteristics this difference approximately halved—on average, permanently excluded pupils achieved 12.49 fewer capped GCSE points than non-permanently excluded pupils ($\beta = -12.49$, $p \leq 0.001$). In other words, when holding constant the *a priori* factors in this study (i.e. prior attainment, gender, ethnicity, English as a first language, looked-after status, free school meals and special needs), the GCSE attainment gap between permanently excluded pupils and non-permanently excluded decreased from 26.64 to 12.49. Therefore, Hypothesis 2, that the difference in GCSE attainment between permanently excluded pupils and non-permanently excluded pupils will decrease when disadvantageous pupil characteristics that predict both exclusion and academic attainment are held constant, was also accepted.

The control variables were all associated with GCSE attainment. Prior attainment was significantly positively associated with capped GCSE points ($\beta = 17.67$, $p \leq 0.001$). Being registered as having special needs (vs. not) was significantly negatively associated with capped GCSE points ($\beta = -14.26$, $p \leq 0.001$). Being of looked-after status (vs. not) was significantly negatively associated with capped GCSE points ($\beta = -9.28$, $p \leq 0.001$). Being eligible for free school meals (vs. not) was significantly negatively associated with capped GCSE points ($\beta = -6.3$, $p \leq 0.001$). Being male (vs. being female) was significantly negatively associated with capped GCSE points ($\beta = -3.97$, $p \leq 0.001$). English being a pupil's first language (vs. not) was significantly positively associated with capped GCSE points ($\beta = 1.08$, $p \leq 0.001$). Being of an ethnic minority (vs. not) was significantly negatively associated with capped GCSE points ($\beta = -0.35$, $p \leq 0.001$). As well as all variables being individually predictive of capped GCSE points, the model significantly predicted capped GCSE points, $F(8, 590,083) = 33462.64.393$, $p < 0.001$, $R^2 = 0.312$. Approximately 32% of variance in capped GCSE points is explained by the model.

DISCUSSION

Prior research has over-estimated the influence of the event of permanent exclusion on subsequent negative consequences by failing to control for existing disadvantages (Berridge et al., 2001; Daniels & Cole, 2010; Mainwaring & Hallam 2010; McCrystal et al., 2007; Pritchard & Cox, 1998). Our study provides a more refined and appropriate approach to measure the influence of permanent exclusion to overcome the limitations of prior work. We found that only half of the GCSE attainment gap between permanently excluded pupils

and their non-excluded peers can be attributed to permanent exclusion. This result suggests that permanent exclusion is neither the catalyst of disadvantage nor a continuation of disadvantage on the same trajectory. Rather, permanent exclusion can more accurately be understood as an accentuation of existing disadvantages whereby the existing trajectory of disadvantage becomes steeper following permanent exclusion. In other words, permanent exclusion compounds academic attainment deficiencies caused by disadvantages associated with gender, prior attainment, ethnicity, language, being looked after, poverty and special education needs.

Policy implications

Our study found that non-permanently excluded pupils achieve 3.76 times more GCSE points than permanently excluded pupils, but that this difference halved when controlling for disadvantageous pupil characteristics. In other words, half of the GCSE attainment gap can be attributed to being permanently excluded and half of the attainment gap can be attributed to previous academic attainment and disadvantageous pupil characteristics. Therefore, taking the approach taken by schools in Scotland to not permanently exclude will not completely solve the GCSE attainment gap. These findings suggest that pupils in Scotland who would have been permanently excluded in England, but were not in Scotland, would still experience significantly lower GCSE attainment than their counterparts because not excluding a pupil does not remove their disadvantage (McCluskey et al., 2016). As such, policymakers and schools need to address the GCSE attainment gap between permanently excluded and non-permanently excluded pupils on two fronts.

First, in order to reduce the gap caused by permanent exclusion, the practice should be more of a last resort. And a decision to permanently exclude should be taken in the interests of the pupil and not in the interests of the school's performance in academic league tables. Currently, England's education system is measured and funded on the basis of academic league tables, which according to Thompson et al. (2021) serves as a perverse incentive when it comes to permanent exclusions that peak in the year ahead of examinations. According to McShane (2020), exclusion incentivises schools to engage in the practice of off-rolling (i.e. the removal of pupils from the school roll via unofficial means). To counter performance-driven exclusions and off-rolling, the results of previously permanently excluded pupils should be included in a school's data for the academic league tables.

Second, in order to reduce the element of the gap caused by previous academic attainment and disadvantageous pupil characteristics, the chronic underfunding of the inclusion agenda should to be reversed (Done & Knowler, 2020). Furthermore, greater understanding of permanently excluded pupils is needed so to remove the stigma associated with being permanently excluded. Rather than blaming and punishing permanently excluded pupils (MacRae et al., 2003; Parsons, 2005), we instead argue that schools should support them in overcoming previous low academic attainment and disadvantageous characteristics. As reported by Murphy (2022), permanently excluded pupils perceived that schools had misread their special educational needs as misbehaviour and non-compliance. Further, the authors suggest that such behaviours were the school's way of communicating personal and social problems, which were amplified by punitive measures. We suggest that before considering permanent exclusion, mainstream schools should work with parents and other agencies to address the social and cultural factors disadvantaging pupils. However, this approach should only be taken if these factors cannot be addressed within the pupil's original mainstream school, and only if it is in the best interest of the pupil should alternative provision be sought, such that zero permanent exclusions is not the solution. This is because it does not remove disadvantages and will only encourage schools to make use of hidden

forms of exclusion to achieve zero exclusions in official statistics (Power & Taylor, 2020). For some pupils, exclusion can serve a corrective function and other mainstream schools or alternative provision may offer a clean start with greater support for disadvantaged pupil characteristics. Keeping the subsequent GCSE performance of the pupil on the books of the originating school incentivises everyone to act in the best interests of the pupil.

Study limitations

Our study was only able to track 1490 pupils out of 2040 (73%) pupils who were permanently excluded from year 10 of state-funded schools in England, such that there is a missing data issue. The permanently excluded pupils that cannot be tracked in these instances are likely to be different from those that can be tracked, as such creating a type of selection bias in these samples. In the case of our study, there were 550 permanently excluded pupils from year 10 in 2017–2018 who were not found in the National Pupil Database's Key Stage Four Data Table for 2018–2019. This means that it is unknown what happened to these pupils and their GCSE attainment.

Some of the permanently excluded pupils that could not be tracked will have achieved zero GCSE attainment, such that the non-adjusted difference in GCSE attainment between permanently excluded pupils and non-permanently excluded pupils is even larger than reported. Other permanently excluded pupils may have continued their education in independent schools, personal tutoring or home schooling which the state or local authority do not fund. In which case, their data would not be included the National Pupil Database even though they may have attained GCSE points. This missing data problem could have been reduced by using GCSE results from 2019/2020 in order to capture pupils who sat their GCSEs a year later. Accordingly, missing data would have introduced bias and inconsistency in the dependent variable as GCSE marks were inflated by being based upon teacher's predicted grades in 2019/2020, rather than examination results as in 2018/2019. Whatever the extent of sampling bias in the data, it is consistent in both the unadjusted (i.e. means comparison) and adjusted (i.e. multiple linear regression) analyses being compared as both make use of the same sample.

A further limitation of this study is condition contamination caused by off-rolling, which is a form of unofficial exclusion using unofficial means (McShane, 2020). Some pupils will have been included in the data but owing to the use of unofficial means to exclude, these pupils will have been coded as non-permanently excluded. The extent of off-rolling is highlighted by Gill et al. (2017), who contrasted 6685 officially recorded exclusions in 2016 against 48,000 pupils registered in alternative provision (AP) settings. Future research could again use data from the National Pupil Database to compare GCSE attainment of pupils in mainstream schools vs. pupils in AP, in order to capture the pupils who end up in AP through either permanent exclusion or off-rolling. Future research should consider if these findings hold during pandemic years and post-pandemic years to understand if the pandemic had an exacerbating influence on the GCSE attainment gap between permanently and non-permanently excluded pupils and also if the relative influence of permanent exclusion or disadvantaged pupil characteristics altered at all.

A final study limitation is that the R^2 for the model produced to test the second hypothesis is 0.312, such that 68.8% of variance is explained by variables not in this model. In other words, there is omitted variable bias in predicting capped GCSE points and factors beyond permanent exclusion and disadvantaged pupil characteristics play an important role in predicting capped GCSE points. Although this study focused on disadvantaged pupil characteristics, future research could consider other groups of variables, such as pupil behaviour, including absences from school. However, caution should be taken to

ensure control variables are distinct from the independent variable of permanent exclusion. For example, absences in the year of a permanent exclusion may be a symptom, rather than a predictor, of exclusion. Furthermore, it should be considered that the data collected for the National Pupil Database is evolving and a limitation of this study is that scale data for a composite prior academic attainment measure has only been available since 2020–2021 and may have been more effective in modelling capped GCSE points than the less granular data used in this study. Future research should make use of this continuous data.

FUNDING INFORMATION

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

CONFLICT OF INTEREST STATEMENT

The authors declare that there are no conflicts of interest regarding the publication of this paper.

DATA AVAILABILITY STATEMENT

Research data are not shared.

ETHICS STATEMENT

This study was conducted in accordance with the BERA's Ethical Guidelines for Educational Research and the ethical standards of the London Metropolitan University. Ethics approval was obtained from the London Metropolitan University Ethics Committee prior to the commencement of the research.

ORCID

Stephen Hills  <https://orcid.org/0000-0001-5894-1418>

Matthew Walker  <https://orcid.org/0000-0002-3080-0530>

James Guinn  <https://orcid.org/0009-0005-5451-1644>

Aubrey Kent  <https://orcid.org/0009-0002-8537-4409>

REFERENCES

- Achilles, G. M., McLaughlin, M. J., & Croninger, R. G. (2007). Sociocultural correlates of disciplinary exclusion among students with emotional, behavioral, and learning disabilities in the SEELS national dataset. *Journal of Emotional and Behavioral Disorders*, 15(1), 33–45.
- Berridge, D., Brodie, I., Pitts, J., Porteous, D., & Tarling, R. (2001). *The independent effects of permanent exclusion from school on the offending careers of young people*. Great Britain, Home Office, Research, Development and Statistics Directorate.
- Blyth, E., & Milner, J. (1993). Exclusion from school: A first step in exclusion from society? *Children & Society*, 7(3), 255–268.
- Bowman-Perrott, L., Benz, M. R., Hsu, H. Y., Kwok, O. M., Eisterhold, L. A., & Zhang, D. (2013). Patterns and predictors of disciplinary exclusion over time: An analysis of the SEELS national data set. *Journal of Emotional and Behavioral Disorders*, 21(2), 83–96.
- Burtless, G. (1995). The case for randomized field trials in economic and policy research. *Journal of Economic Perspectives*, 9(2), 63–84.
- Carlile, A. (2012). An ethnography of permanent exclusion from school: Revealing and untangling the threads of institutionalised racism. *Race Ethnicity and Education*, 15(2), 175–194.
- Clarke, E. (2024). Voices from the edge: Girls' experiences of being at risk of permanent exclusion. *British Educational Research Journal*, 50(2), 855–875.
- Clegg, J., Stackhouse, J., Finch, K., Murphy, C., & Nicholls, S. (2009). Language abilities of secondary age pupils at risk of school exclusion: A preliminary report. *Child Language Teaching and Therapy*, 25(1), 123–139.
- Daniels, H., & Cole, T. (2010). Exclusion from school: Short-term setback or a long term of difficulties? *European Journal of Special Needs Education*, 25(2), 115–130.

- Demie, F. (2021). The experience of black Caribbean pupils in school exclusion in England. *Educational Review*, 73(1), 55–70.
- Demie, F., & Strand, S. (2006). English language acquisition and educational attainment at the end of secondary school. *Educational Studies*, 32(2), 215–231.
- Department for Education. (2019). Permanent and fixed period exclusions in England 2017 to 2018. Gov.UK. <https://www.gov.uk/government/statistics/permanent-and-fixed-period-exclusions-in-england-2017-to-2018>
- Department for Education. (2023). *Suspensions and permanent exclusions in England*. Gov.UK. <https://explore-education-statistics.service.gov.uk/find-statistics/suspensions-and-permanent-exclusions-in-england>
- Done, E. J., & Knowler, H. (2020). Painful invisibilities: Roll management or 'off-rolling' and professional identity. *British Educational Research Journal*, 46(3), 516–531.
- Duffy, G., Robinson, G., Gallagher, T., & Templeton, M. (2021). School exclusion disparities in the UK: A view from Northern Ireland. *Emotional and Behavioural Difficulties*, 26(1), 3–18.
- Early, E., Miller, S., Dunne, L., Thurston, A., & Filiz, M. (2020). The influence of socio-economic background and gender on school attainment in the United Kingdom: A systematic review. *Review of Education*, 8(1), 120–152.
- Farquharson, C., McNally, S., & Tahir, I. (2024). Education inequalities. *Oxford open Economics*, 3(1), i760–i820.
- FFT Education Datalab. (2024). *GCSE results 2024: The main trends in grades and entries*. Exams and Assessment. <https://ffteducationdatalab.org.uk/2024/08/gcse-results-2024-the-main-trends-in-grades-and-entries/>
- Fletcher, J., Strand, S., & Thomas, S. (2015). The educational progress of looked after children in England: technical report 1: secondary school progress and attainment. Nuffield Foundation. https://research-information.bris.ac.uk/ws/portalfiles/portal/56549074/EducationalProgressLookedAfterChildrenTechnical_Report_1_Nov2015.pdf
- Gill, K., Quilter-Pinner, H., & Swift, D. (2017). *Making the difference: breaking the link between school exclusion and social exclusion*. Institute for Public Policy Research. <https://ippr-org.files.svdcdn.com/production/Downloads/making-the-difference-summary-october-2017.pdf>
- Gorard, S. (2012). Who is eligible for free school meals? Characterising free school meals as a measure of disadvantage in England. *British Educational Research Journal*, 38(6), 1003–1017.
- Gross, J., & McChrystal, M. A. (2001). The protection of a statement? Permanent exclusions and the SEN code of practice. *Educational Psychology in Practice*, 17(4), 347–359.
- Harland, L. (2014). Educational attainment of children and young people in the looked-after care system. *Community Practitioner*, 87(11), 25–27.
- Hodgson, P., & Webb, D. (2005). Young people, crime and school exclusion: A case of some surprises. *The Howard Journal of Criminal Justice*, 44(1), 12–28.
- Humphrey, N., Wigelsworth, M., Barlow, A., & Squires, G. (2013). The role of school and individual differences in the academic attainment of learners with special educational needs and disabilities: A multi-level analysis. *International Journal of Inclusive Education*, 17(9), 909–931.
- Ilie, S., Sutherland, A., & Vignoles, A. (2017). Revisiting free school meal eligibility as a proxy for pupil socio-economic deprivation. *British Educational Research Journal*, 43(2), 253–274.
- Jackson, M. (2012). Bold choices: How ethnic inequalities in educational attainment are suppressed. *Oxford Review of Education*, 38(2), 189–208.
- Krezmien, M. P., Leone, P. E., & Achilles, G. M. (2006). Suspension, race, and disability: Analysis of statewide practices and reporting. *Journal of Emotional and Behavioral Disorders*, 14(4), 217–226.
- Kulz, C. (2019). Mapping folk devils old and new through permanent exclusion from London schools. *Race Ethnicity and Education*, 22(1), 93–109.
- Lessof, C., Ross, A., Brind, R., Harding, C., Bell, E., & Kyriakopoulos, G. (2018). *Understanding KS4 attainment and progress: Evidence from LSYPE2*. Department for Education. https://assets.publishing.service.gov.uk/media/5bc4b616e5274a361d74a6da/Understanding_KS4_LSYPE2_research-report.pdf
- Li, Y. (2021). Entrenched inequalities? Class, gender and ethnic differences in educational and occupational attainment in England. *Frontiers in Sociology*, 5, 601035.
- Luke, N., Sinclair, I., & O'Higgins, A. (2015). *The educational progress of looked after children in England: technical report 2: relating care to educational attainment and progress*. Nuffield Foundation. <https://www.education.ox.ac.uk/wp-content/uploads/2019/05/Technical-Report-2.pdf>
- Lupton, R., Thomson, S., Velthuis, S., & Unwin, L. (2021). *Moving on from initial GCSE 'failure': Post-16 transitions for 'lower attainers' and why the English education system must do better*. Nuffield Foundation. <https://www.nuffieldfoundation.org/wp-content/uploads/2021/02/Post16-transitions-for-lower-attainers-Final-report.pdf>
- MacRae, S., Maguire, M. E. G., & Milbourne, L. (2003). Social exclusion: Exclusion from school. *International Journal of Inclusive Education*, 7(2), 89–101.
- Mainwaring, D., & Hallam, S. (2010). 'Possible selves' of young people in a mainstream secondary school and a pupil referral unit: A comparison. *Emotional and Behavioural Difficulties*, 15(2), 153–169.

- McCluskey, G., Cole, T., Daniels, H., Thompson, I., & Tawell, A. (2019). Exclusion from school in Scotland and across the UK: Contrasts and questions. *British Educational Research Journal*, 45(6), 1140–1159.
- McCluskey, G., Riddell, S., Weedon, E., & Fordyce, M. (2016). Exclusion from school and recognition of difference. *Discourse: Studies in the Cultural Politics of Education*, 37(4), 529–539.
- McCrystal, P., Percy, A., & Higgins, K. (2007). Exclusion and marginalisation in adolescence: The experience of school exclusion on drug use and antisocial behaviour. *Journal of Youth Studies*, 10(1), 35–54.
- McShane, J. (2020). We know off-rolling happens. Why are we still doing nothing? *Support for Learning*, 35(3), 259–275.
- Murphy, R. (2022). How children make sense of their permanent exclusion: A thematic analysis from semi-structured interviews. *Emotional and Behavioural Difficulties*, 27(1), 43–57.
- Parsons, C. (2005). School exclusion: The will to punish. *British Journal of Educational Studies*, 53(2), 187–211.
- Parsons, C., & Castle, F. (1998). The cost of school exclusion in England. *International Journal of Inclusive Education*, 2(4), 277–294.
- Parsons, S., & Elliot Major, L. (2024). Not just grades: The far-reaching consequences of failing to gain a grade 4-9 in English and Maths GCSEs. UCL Centre for Longitudinal Studies. https://discovery.ucl.ac.uk/id/eprint/10194892/1/CLS-Working-Paper-2024-3-Not-just-grades_consequences-of-failing-to-gain-a-grade-4-9-in-English-and-Maths-GCSEs.pdf
- Pirrie, A., Macleod, G., Cullen, M. A., & McCluskey, G. (2011). What happens to pupils permanently excluded from special schools and pupil referral units in England? *British Educational Research Journal*, 37(3), 519–538.
- Power, S., & Taylor, C. (2020). Not in the classroom, but still on the register: Hidden forms of school exclusion. *International Journal of Inclusive Education*, 24(8), 867–881.
- Pritchard, C., & Cox, M. (1998). The criminality of former “special educational provision” permanently “excluded from school” adolescents as young adults (16–23): Costs and practical implications. *Journal of Adolescence*, 21(5), 609–620.
- Sabates, R. (2008). Educational attainment and juvenile crime: Area-level evidence using three cohorts of young people. *The British Journal of Criminology*, 48(3), 395–409.
- Shuttleworth, I. (1995). The relationship between social deprivation, as measured by individual free school meal eligibility, and educational attainment at GCSE in Northern Ireland: A preliminary investigation. *British Educational Research Journal*, 21(4), 487–504.
- Strand, S. (2013). The limits of social class in explaining ethnic gaps in educational attainment. *British Educational Research Journal*, 37(2), 197–229.
- Strand, S., & Fletcher, J. (2014). *A quantitative longitudinal analysis of exclusions from English secondary schools*. University of Oxford.
- Strand, S., Malmberg, L., & Hall, J. (2015). *English as an additional language and educational achievement in England: An analysis of the National Pupil Database*. Educational Endowment Fund.
- Thompson, I., Tawell, A., & Daniels, H. (2021). Conflicts in professional concern and the exclusion of pupils with SEMH in England. *Emotional and Behavioural Difficulties*, 26(1), 31–45.
- Velthuis, S., Lupton, R., Thomson, S., & Unwin, L. (2018). *The characteristics and post-16 transitions of GCSE ‘lower attainers’*. Nuffield Foundation. https://hummedia.manchester.ac.uk/institutes/mui/igau/lower_attainers_working_paper_oct2018.pdf
- Wong, Z. (2023). The alarming epidemic of school dropouts: Causes and consequences. *Journal of Educational Sciences Research*, 13(3), 1.

How to cite this article: Hills, S., Walker, M., Guinn, J. & Kent, A. (2025). The GCSE attainment gap: Assessing the influence of permanent school exclusion. *British Educational Research Journal*, 00, 1–17. <https://doi.org/10.1002/berj.4133>