



Geospatial and sociodemographic patterns of unauthorised school absence



Key points

- Using attendance records obtained from the Department for Education, the team analysed the pre-pandemic rates of unauthorised absences across the Bradford District between 2012 and 2019.
- School absences have increased over time, largely due to a rise in unauthorised absences which increased by 38% across this period.
- Rates of unauthorised absence are highly concentrated among particular pupils but rates vary widely across areas. Analyses showed between 1.7% and 18.8% of pupils are associated with 80% of total unauthorised absence in their home LSOA (Lower Super Output Area).
- The concentration of unauthorised absences also varied by gender, ethnicity, and age-group.

Summary

Using routinely collected attendance records provided by the Department for Education (DfE) and geospatial data from the Connected Bradford database, the team explored how unauthorised absences vary by place- and person-level factors across the Bradford district

Between 2012 and 2019, school absence rates have increased. There are large discrepancies in the concentration of unauthorised absence rates across

areas which varies further by sociodemographic factors such as ethnicity, gender, and age.

In addition, the study's preliminary findings suggest a relationship between unauthorised absence and mental health issues in young people.

What works in one community to reduce unauthorised absences may not be appropriate for another. Therefore, these insights demonstrate why schools and local authorities must adopt tailored place-based initiatives to tackle school absences.

Background

Research suggests school absence has both immediate and long-lasting adverse effects, including poor educational outcomes, increased rates of risky behaviour, increased risk of criminality, and poorer mental health.

Importantly, the effects of absenteeism impact the whole classroom, not just the children who do not turn up. While all absence from school is detrimental to children's development, prior work suggests that *unauthorised* absences might be more harmful than those that are authorised (e.g. medical appointments, religious holidays). Therefore, this project focused on unauthorised absences.

Absence is a complex problem; there are countless reasons why a pupil may not be attending school. Due to the sometimes stark differences in the demography of one area to the next (e.g. ethnic density, socioeconomic variation), it is naïve to assume that applying the same intervention across a whole region or district is likely to be successful. Therefore, to begin to tackle the attendance crisis, it is important to understand how trends in absence rates vary between areas.

This research is particularly timely as absence rates continue to increase, especially since the Covid-19 pandemic. It is estimated that in the 2022–23 academic year, nearly a quarter of pupils had less than 90% attendance. However, to begin to tackle post-pandemic absenteeism, it is essential to first explore the landscape prior to the pandemic.

With increased funding cuts, a greater understanding of where to target attendance interventions ensures that local authorities can use their limited resources most effectively.

What we did

Anonymised data were accessed via Connected Bradford – a secure population-level linked database of public service data. Key datasets accessed included those provided by the DfE (including attendance records), Bradford District Care Trust, and primary healthcare for the 2012–2019 period.

Absence rates were calculated as the total number of authorised/unauthorised absent sessions divided by the total number of sessions that could have possibly been attended.

The team obtained geographic reference data for each individual describing their home LSOA and examined spatial variation in absence rates at the LSOA level. An LSOA is a geographical area with a typical population of 1,000–3,000 people.

The team also investigated the concentration of unauthorised absence among pupils. They looked at how many pupils within an LSOA make up 80% of unauthorised absence in that LSOA. This varied across Bradford. In one LSOA, 1.7% of pupils were associated with 80% of unauthorised absence.

To investigate the relationship between unauthorised absence and mental health, the team obtained referrals to Child and Adolescent Mental Health Services (CAMHS).

Key findings

Analyses found interesting patterns of absence rates over time and demonstrated distinct differences due to both geography and sociodemographics.

1. School absences increased across Bradford from 2012–13 to 2018–19, largely due to a rise in unauthorised absences. In 2018–19, 680,000 school days were lost to absence. Of these, 260,000 were due to unauthorised absence, a 38% increase from the equivalent figure in 2012–13.
2. The levels of unauthorised absence across Bradford vary considerably by area. In 2018–19, 30% of Bradford LSOAs were associated with 60% of unauthorised absence. The LSOA with highest unauthorised absence rate was 5.10%, 22.4 times greater than the LSOA with the lowest (0.02%).
3. Unauthorised absence is highly concentrated among pupils. In 2018–19, 80% of unauthorised absences were associated with 11.9% of pupils. This concentration varies across Bradford; in one LSOA, 1.7% of pupils were associated with 80% of unauthorised absence.
4. With increasing age, there were increased rates of unauthorised absences. For instance, during primary school (age 6–11 years), the average rate of unauthorised absence was approximately 1.5%. This increased to nearly 3.5% by age 16. This is also demonstrated by the high concentration levels in six-year-olds, compared to other ages (i.e., a small minority of pupils accounting for a large proportion of absences).
5. Aggregating by age showed that not only were rates of unauthorised absence increasing, but the age of which unauthorised absence was an issue was decreasing. For example, 11-year-olds in 2018–19 have almost the equivalent absence rate of 14-year-olds in 2012–13.
6. The concentration of unauthorised absence varies between different ethnic populations. In 2018–19, unauthorised absence was more concentrated in the White British and Northern Irish population than in the British-Asian/Asian Pakistani population (i.e., a smaller number of individuals accounting for a larger proportion of the absence). This ethnic difference widens as children move into secondary school.
7. The unauthorised absence rate increased by more than one percentage point in 27 Bradford LSOAs from 2012–13 to 2018–19. This is equivalent to every pupil in those areas losing an additional two school days per academic year.
8. In preliminary analyses, pupils with at least one referral to CAMHS in 2018–19 had higher unauthorised absence rates that academic year compared to pupils without a CAMHS referral. While these findings are preliminary, they show an association between unauthorised absenteeism and engagement with mental health support services.



Next steps

Other local authorities should use similar methods to adopt a place-based approach to tackle the attendance crisis.

By doing so, the limited resources available are targeted to areas in greatest need, rather than using less effective “blanket approaches” to policy change. This initial exploratory study has highlighted a range of potential avenues for future research to support these efforts.

For example, future work should consider how the reasons for absence (e.g. illness, extended family holidays etc.) may vary geographically. Also, further investigation could begin to understand how some of the patterns might differ across primary, secondary, and special schools.

In addition, now a “baseline” has been established, further work should consider the change in these spatial patterns following the Covid-19 pandemic.

Only preliminary work was undertaken (prior to formal statistical modelling) on the link between mental health and school absence. Therefore, to progress this line of enquiry, it would be useful to understand the relationship between CAMHS referrals and absence while controlling for additional factors, such as gender, ethnicity, and socioeconomic status.

Adding in additional data related to mental health (e.g. survey data or diagnoses) or including qualitative data might also be useful to deepen the understanding of the impact on school absence.

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For further information

Read more about our Connected Data Analytics programme on our website: vulnerabilitypolicing.org.uk/connected-data-analytics

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