ANALYSIS OF PUPIL ATTENDANCE DATA IN EXCELLENCE IN CITIES (EiC) AREAS: AN INTERIM REPORT

Marian Morris and Simon Rutt
National Foundation for Educational Research

Introduction

Levels of school attendance during the years of compulsory education have long been the focus of Government interest and, in recent years, a range of initiatives have been introduced, many under the National Behaviour and Attendance Strategy, with the aim of reducing truancy and improving pupil attendance and behaviour. Schemes such as the targeted Behaviour Improvement Programme (BiP) are key elements of that strategy. Pupil behaviour and attendance are also central to initiatives such as Excellence in Cities (EiC). This research brief summarises an analysis of the pupil-level data that was collected by a consortium (led by the NFER) for the national evaluation of EiC. During this evaluation, attendance data was provided, on an annual basis, by secondary schools agreeing to take part in the longitudinal evaluation of EiC. The data included in this report was in the form of authorised and unauthorised absence (in half-day sessions) on young people in Year 7 through to Year 10 in 343 schools over a two-year period.

Key findings

- The majority of pupils in the 343 participating EiC schools (67 per cent) had no recorded periods of unauthorised absence. However, for a minority of pupils (just over five per cent) incidents of unauthorised absence amounted to up to two weeks per school year. For over one per cent this absence amounted to half a term or longer. Indeed, the majority of incidents of unauthorised absence were accounted for by a minority of pupils. Nearly half of the recorded sessions of unauthorised absence were attributable to just two per cent of the pupils in the study.

- For just over one-third of the pupils in the EiC schools authorised absences amounted to one week or less per year, although less than one-tenth of pupils had no authorised absences. However, nearly five per cent of the pupils in the EiC schools, and more than five per cent of those in Year 10 had authorised absence periods that equated to approximately half a term (80 half-day sessions).

- Once pupil and school background characteristics for young people in Year 9 and Year 10 were taken into account:
  - Higher than average levels of authorised absence were seen amongst girls; young people with special educational needs; those in receipt of free school meals; and those in comprehensive schools (for 11-16 year olds).
  - Higher than average levels of unauthorised absence were seen amongst young people with special educational needs; those in receipt of free school meals; girls in girls' schools in Year 9; Year 10 pupils in BiP schools, low performing schools, or in EiC schools in the south-west.
  - Lower than average levels of authorised absence were seen amongst young people with lower levels of fluency in English; young people who were bi-lingual non-native speakers; young people in London schools, small schools (Year 10 only) and Specialist schools (Year 10 only). Amongst the 2002 cohort low levels of absence were also seen amongst Black African pupils (Year 9 and Year 10) and Year 9 pupils from Chinese, Black Caribbean, Black other, Indian and other minority ethnic groups.
  - Lower than average levels of unauthorised absence were seen amongst young people with lower levels of fluency in English and girls who were bi-lingual non-native speakers; Year 9 Black African and Chinese pupils (2002 data); Year 9 pupils in Beacon schools.
Once pupil and school background characteristics were taken into account, there appeared to be an association between absence rates and pupil attainment:

- **Higher** than average levels of absence (authorised and/or unauthorised) were associated with reduced attainment at GCSE in Year 11, with a particular impact on boys; reduced probability of achieving five or more GCSEs at A*-C; increased likelihood of not obtaining any GCSEs at grade C or above; reduced attainment in Key Stage 3 English (and, for authorised absence alone, Key Stage 3 Maths), with a particular impact on boys.

**Findings from descriptive statistics**

For just over one-third of the pupils (33.9%) in the 343 participating EiC schools **authorised absences** amounted to one week or less per year (10 half day sessions), although fewer than 10% of pupils had no authorised absences. Just over half of the pupils (54%) had no more than two weeks of authorised absence during the academic year, although there was some variation by year group, with lower levels of such absence amongst the younger pupils.

However, nearly five per cent of the pupils (4.5%) in the EiC schools, and more than five per cent of those in Year 10 (5.3%) had authorised absence periods that equated to approximately half a term (80 half day sessions). On average, one per cent of all of the pupils in such schools were absent for the equivalent of at least one school term or longer, although there was some minor variation by year group, with less than one per cent of Year 7 pupils (0.7%) and more than one per cent of Year 10 pupils (1.2%) having such long periods of authorised absence.

The story for **unauthorised absence** was rather different. The majority of pupils (67%) had no recorded periods of unauthorised absence, while a further 23.4% had incidents of unauthorised absence amounting to no more than one week. For over five per cent of pupils, however, unauthorised absence amounted to up to two weeks and for over one per cent this absence amounted to half a term or longer. Indeed, for some pupils (0.5%) this unauthorised absence was equivalent to more than one-third of the academic year, with two pupils (one in Year 9 and one in Year 10) having attended school for less than one week in the year.

The majority of incidents of unauthorised absence were accounted for by a **minority** of pupils. Nearly half of the recorded sessions of unauthorised absence (44.9%), for example, were attributable to just two per cent of the pupils in the study, each of whom had missed 51 or more half-day sessions (equivalent to five or more weeks in the academic year). Well over half of the missed half-day sessions were attributable to less than one twentieth of the pupils in the study: 59.8% of the recorded unauthorised absence was accounted for by 3.8% of the pupils.

Combined authorised and unauthorised absence data was available for 55,072 young people and was used to derive an **attendance** variable. This suggested that overall mean attendance was significantly higher (at 91.98%) in 2002 than in 2001 (at 91.54%). There were
also some significant differences between year groups. Overall attendance was significantly higher in Year 7 (92.8%) than in all other year groups. Attendance in Year 8 (91.9%) was significantly higher than in Year 9 or 10. However, there were no statistically significant differences between young people in the older year groups, although attendance amongst the Year 10 2002 cohort (91.8%) was significantly higher than amongst those who had been in Year 10 in 2001 (91%).

The outcomes of analysis of variance suggested that there were some significant differences in authorised and unauthorised absence and attendance rates between different groups of young people (girls had higher rates of authorised absence than boys, young people in Specialist schools had lower rates of authorised absence than other pupils and young people from Black African backgrounds had a lower incidence of unauthorised absence than their peers from all other groups, for instance). However, this analysis did not indicate whether there were any variations between the absence rates of Black African girls in Specialist schools compared with Black African girls in non-Specialist schools, for instance. In order to examine the relative impact of background variables on attendance a multilevel modelling approach was taken.

**Findings from the modelling process: authorised and unauthorised absence and attendance**

Using hierarchical modelling techniques, models were constructed for authorised and unauthorised absence and attendance for young people in Years 9 and 10. Across both cohorts, and once other pupil and school characteristics were taken into account, there appeared to be a significant association between special educational needs and poor attendance, with comparatively high levels of both authorised and unauthorised absence particularly amongst those on stage 3 of the SEN Code of Practice. Young people who were non-native speakers of English had a better record of attendance than those for whom English was a first language. In both Year 9 and Year 10, those who were becoming familiar or confident with English and those who were fluent bi-lingual speakers had better attendance records (and a lower incidence of both authorised and unauthorised absence) than native English speakers. Indeed, amongst girls (whose attendance records were generally poorer than boys), those who were bi-lingual had better attendance records than all other girls and than boys.

**Findings from the modelling process: the relationship between authorised and unauthorised absence and attainment**

There appears to be a significant association between authorised and unauthorised absence and attainment at both Key Stage 3 and Key Stage 4, even when pupil and school level characteristics have been taken into account. At Key Stage 3, this was most evident in relation to achievement in English (where the impact of both authorised and unauthorised absence was negatively associated with attainment), while at Key Stage 4 higher levels of absence (though, particularly, higher levels of unauthorised absence) were negatively associated with lower capped eight scores, a reduced probability of attaining five A* to C grades and an increased probability that young people would not obtain any GCSEs above a grade D. Across both Key Stages, the impact of pupil absence on attainment was more apparent amongst boys than amongst girls, particularly in relation to unauthorised absence.

An examination of the coefficients for authorised and unauthorised absences suggest that higher levels of unauthorised absences may be more significant in determining the extent to which young people's performance at GCSE is affected by their attendance in school. However, it is worth acknowledging that the impact of such non-attendance may have a bigger impact on boys' achievement than on girls' achievement.

**Discussion**

The statistical techniques that have been used in the analyses that are presented here do not imply causality. We cannot tell from the associations identified above whether the increased likelihood of low levels of attainment with higher levels of absence are the direct result of poor attendance, whether poor prior attainment has led to poor attendance or whether some other factor, not included in the modelling process, is having a significant impact.

For example, in the case of boys' apparent underperformance by comparison with girls with the same level of attendance, prior attainment and other characteristics, one would need to question whether this means that boys need more time in school in order to achieve the same results as their female peers, or whether, perhaps, other factors (particularly attitudinal factors) are contributing to this difference in outcome. In the analyses conducted for the national evaluation of EiC, one of the key factors associated with higher levels of performance was a positive
attitude to education: girls were significantly more likely than boys to be associated with such attitudes.

It should also be noted that the apparent relationship between pupil absence and pupil attainment is not even. While a decrease in absence may be marked by an increase in the probability of higher level attainment, an increase in absence (particularly in authorised absence) does not necessarily lead to a concomitant decrease in such a probability. At Key Stage 3, the relationship between absence and attainment also appeared to vary by subject, with unauthorised absence, for instance, being more particularly associated with lower levels of performance in English than in Maths. Moreover, the apparent relationship between pupil absence and pupil attainment was not evident across all pupil groups: the higher rates of attendance amongst Black Caribbean pupils than amongst White UK pupils in Year 9 were not reflected in higher attainment at Key Stage 3.

To what extent, therefore, is it possible to find answers to the questions posed at the outset of this analysis? Clearly, there are variations in authorised and unauthorised absence rates between young people from different year groups and with different background characteristics and these rates vary by school type and location. There appears to be some relationship between attendance and attainment, although as indicated above, this relationship is not straightforward. However, further exploration is needed to ascertain both whether the impact on attainment of different levels of non-attendance can be quantified, and whether there is a critical threshold of attendance, beyond which levels of absence might affect attainment significantly. These questions will be explored in cross-sectional and longitudinal models to be developed once the NPD data for 2002/03 has been incorporated.

Additional Information

Copies of the full report (RR571) - priced £4.95 - are available by writing to DFES Publications, PO Box 5050, Sherwood Park, Annesley, Nottingham NG15 0DJ.

Cheques should be made payable to "DFES Priced Publications".

Copies of this Research Brief (RB571) are available free of charge from the above address (tel: 0845 60 222 60). Research Briefs and Research Reports can also be accessed at www.dfes.gov.uk/research/

Further information about this research can be obtained from Liz Ison, DFES, Level 65, Sanctuary Buildings, Great Smith Street, London SW1P 3BT.

Email: liz.ison@dfes.gsi.gov.uk

The views expressed in this report are the authors' and do not necessarily reflect those of the Department for Education and Skills.