Improving the effectiveness of virtual schools

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Executive summary

This report seeks to address the question of why children in care get markedly different educational outcomes depending on which local authority has responsibility for them. This is an important issue of fairness and the effectiveness of social policy.

We explore this question through the lens of the ‘virtual school’ – the team within each local authority tasked with supporting learning and held accountable for progress and attainment. Virtual schools have existed across England since 2014 and play a key role in advocating for young people, liaising with schools and delivering learning opportunities.

The report draws on expert interviews with key stakeholders, focus groups of virtual school heads and analysis of secondary data about local authorities and their virtual schools. It focuses on the concept of effectiveness as it relates to virtual schools and how this might be improved.
Our key findings are as follows:

1. There are important differences in the ability of virtual schools to ensure that young people have stable school attendance, with many local schools actively resisting the admission of children in care. Differences in the availability of special school and alternative provision places and local school approaches to attachment, trauma and mental health needs are also contributory.

2. The management of special educational needs and disabilities for children in care is unnecessarily complex and leads to delays in securing school places and the necessary learning support. This is intensified in geographically small local authorities.

3. There were universal concerns about the availability of appropriate care placements and pressures on social workers. These factors were heightened in some areas (especially rural) and could lead to disruption and a deprioritising of education.

4. The engagement of Ofsted in supporting the education of children of care appears to be limited and inconsistent, in both local authority and school inspections.

5. We found no evidence that any particular model of virtual school was inherently more effective. Effectiveness was, however, impacted by differences in the stability of funding, the skills/experience of the virtual school head and their relationships with key decision makers.

Based on these findings, we have established ten principles of effectiveness and related these to recommendations for the Department of Education, Ofsted, the Association of Directors of Children’s Services and the Local Government Association. These cover: (1) Stable planning horizons, (2) Parity of status and pay, (3) Timely school admissions, (4) Coherent SEND support, (5) Informed practitioners, (6) Engagement with Ofsted inspections, (7) Developing PEP practice, (8) Adequate care placements, (9) High-quality special and alternative provision, and (10) Stronger trauma-informed and attachment-aware practices.

About this report

This report was kindly funded by the KPMG Foundation and published in November 2023 by the University of Exeter and the National Association of Virtual School Heads (NAVSH). The authors are Dr Neil Harrison (University of Exeter), Professor Judy Sebba (University of Oxford), Dr Marc Wigley (University of Oxford), Rachael Pryor (NAVSH) and Fay Blyth (NAVSH). The first three authors undertook data collection and/or analysis, while the latter two contributed expert knowledge about virtual schools but did not have access to the data. The authors are extremely grateful to the participants in the expert interviews and focus groups for their time and insight.
1. What is the issue?

Children in care have substantially less strong educational outcomes than other young people, on average, even when compared to others in disadvantaged groups (e.g. those with a social worker or receiving free school meals). The reasons for this are outside the scope of this study, but include the long-term impact of abuse and mistreatment experienced prior to coming into care, social disruption, school and care placement changes, long-term mental health issues, low expectations from professionals and stigmatisation.

This trend is generally expressed at the national level, but it also holds at the level of individual local authorities too. In every local authority in England, children in care have substantially lower attainment and progress scores than the national average. However, this is where the picture becomes more intriguing.

One might imagine that those local authorities with the best outcomes for young people overall would also record the best outcomes for children in care. However, a brief exploration of the data shows this assumption to be unfounded – see Figure 1. In fact, there is very little relationship between the two, either at Key Stage 2 (KS2) or Key Stage 4 (KS4). Expressed slightly differently, children in care often do better in local authorities where other children do relatively poorly, and vice versa.

Figure 1: (a) Percentage of young people reaching the expected level in reading at KS2, averaged between 2017 and 2019 for each local authority in England (n=87), (b) KS4 ‘Attainment 8’ scores averaged between 2017 and 2019 for each local authority in England (n=145).

Source: Local Authority Interactive Tool dataset.

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1 We use this phrase throughout the report as it is the one that tends to be preferred by young people. It is effectively identical in meaning to ‘looked after child’ or ‘child looked after’, which are more commonly used in government documents.

2 We use the word ‘placement’ throughout the report for clarity of understanding, but we recognise that practitioners are now moving away from this term as it can have negative connotations for young people.

Similarly, for young people not in care, educational outcomes are strongly correlated with the deprivation of the local authority in which they live – see Figure 2. However, once again, this relationship does not hold for children in care.

These weak relationships lie at the heart of this study. If deprivation and the educational success of local schools are not the main drivers of educational outcomes for children in care, what are? Why are there such variations in outcomes between ostensibly similar local authority areas? How are some equipped to support children in care to achieve success in school at a much higher rate than others?

Through this study we firstly pose the question of whether outcomes for all children in care can be brought up to the level of the best performing local authority. Secondly, we ask what can be done nationwide to raise the bar even higher. In particular, we focus on the role of the ‘virtual school’ – the team within each English local authority with responsibility for supporting the educational outcomes of children in care. We also explore the wider roles played by schools, Ofsted and other agencies in this space.

Figure 2: (a) KS4 ‘Attainment 8’ scores averaged between 2017 and 2019 for each local authority in England (n=145) for all children, compared to Index of Multiple Deprivation for the local authority, (b) KS4 ‘Attainment 8’ scores averaged between 2017 and 2019 for each local authority in England (n=145) for children in care, compared to Index of Multiple Deprivation for the local authority Source: Local Authority Interactive Tool dataset.

5 As there was significant disruption to education during the Covid-19 pandemic, earlier data have been used. Data are suppressed due to small numbers on children in care in some local authorities, especially in KS2.
2.1 Virtual schools

Following a successful pilot in the late 2000s, the Children and Families Act 2014 created a statutory responsibility on every local authority in England to have a ‘virtual school head’ (VSH). Typically an experienced headteacher, each VSH leads a virtual school – not to be confused with online learning provision, the principal purpose of virtual schools is to improve educational outcomes for children in care. They aim to achieve this by:

a) advocating on behalf of children with physical schools, local authority departments and other agencies engaged in their education and welfare,

b) administering the Pupil Premium Plus funding totalling around £154 million nationally, and

c) delivering educational enhancement services directly or indirectly to children (e.g. additional tutoring or mentoring).

The devolved governments in both Scotland and Wales are now moving to implement virtual school systems, which are drawing ideas from the English model.

There have been several small-scale studies documenting the role, configuration, activities and challenges of virtual schools. While these have explored perceptions of success among virtual school heads, no specific impact evaluation of virtual schools has been undertaken since the pilot phase over 10 years ago. There is good correlational evidence that virtual schools are collectively having a positive effect. Direct comparisons are difficult due to changing definitions and examination protocols, but there have been apparent improvements in outcomes for children in care at both KS2 and KS4 since their implementation. There has also been a marked drop in permanent exclusions over this period, reflecting a key objective to keep children in care within school wherever possible.

Since their creation, virtual schools have been steadily accumulating new responsibilities. They were given responsibility for ‘previously looked-after children’ (e.g. those adopted from care) in 2018. In 2021, their remit was again expanded – initially on a pilot basis – to further include children with a social worker. From 2023/24, the Pupil Premium Plus will be extended to cover children in care aged over 16 across all virtual schools following a successful pilot phase.

Their role therefore now encompasses the educational progress of many of the most vulnerable young people in society. This is conceptualised within an increasing understanding that school can be a place of safety, stability and success for children in care, also acting as a protective factor in other elements of their lives. Virtual schools therefore have a key responsibility in the wide wellbeing of children in care, through ensuring that their educational experiences are as positive as possible.

However, beyond the requirement to have a VSH, there is no detail within the statutory guidance on how virtual schools should operate. As a result, virtual schools are constituted very differently between the 152 English local authorities, with contrasting resourcing, organisational positioning, professional networks and leadership. This partly reflects the size of the local authority in which they are based, but also the status of the VSH and the priority afforded to the virtual school – and children in care more widely. The portfolio of activities undertaken by virtual schools also vary considerably, based on prior history, interests within the staff team, access to research findings and local circumstances. Another important distinguishing factor is the proportion of Pupil Premium Plus funding that is used strategically by the virtual school, as opposed to being passed to individual schools.
2.2 Wider policy context

This study has been undertaken concurrently with several important policy reviews and developments that are salient to the work of virtual schools. We provide a brief overview here, focusing on the areas of most direct relevance, while acknowledging the inherent interconnectedness of all elements of the education and care systems.

The **Independent Review of Children’s Social Care**\(^7\) was published in May 2022, making wide-ranging recommendations for reform. In particular, it recognised the deepening crises within the care system caused by a shortage of foster carers and social workers, as well as the importance of the voice of the child in corporate decision-making. While the review makes passing reference to virtual schools – mainly to recommend that they should assume greater accountability for measured attainment – there is no real engagement with their pivotal role within local authorities. More broadly, the review’s section on education is limited in scope and depth, largely discussing existing practices rather than making meaningful recommendations for improvement. Importantly, it does not explicitly recognise the role of educational stability and success in supporting positive outcomes in other domains of young people’s lives.

The government’s response to the review, entitled **Stable Homes, Built on Love**\(^8\) was published in February 2023 as a consultation document. This makes specific recommendations for increasing the availability of foster carers (particularly through kinship networks) and social workers, as well as seeking to reduce perceived administrative burdens on the latter. The proposals have been broadly welcomed in principle by key organisations, but there are also extensive critiques (e.g. by the Local Government Association\(^9\)) about the absence of firm commitments around the provision of adequate funding to effect significant change.

The consultation document makes more significant reference to the work of virtual schools than the original review, albeit that it is still limited. There are commitments about improving the stability of school placements and the need for ‘robust’ Personal Education Plans (PEPs). There is also a commitment to extend the Pupil Premium Plus for young people aged between 16 and 19 nationwide and to consult on the extension of the role of virtual schools up to the age of 25, with a view to strengthening post-16 pathways for children in care and care leavers.

Finally, March 2023 saw the publication of the government’s **Special Educational Needs and Disabilities and Alternative Provision Improvement Plan: Right Support, Right Place, Right Time**\(^10\), following on from the Green Paper\(^11\) published a year earlier. The plan recognises the strong – and growing – demand pressures on the existing SEND system and seeks to increase the baseline of support available in mainstream schools in order to reduce the number of young people needing to source additional support through Education, Health and Care Plans (EHCPs), but provides no additional resources to schools to do so. The plan also commits £2.6 billion to opening new special schools and integrating alternative provision into the SEND system, with the whole system being governed by a set of ‘national standards’ in order to establish expectations and level geographical disparities. Importantly, the plan explicitly recognises the close linkages between care and SEND.

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\(^7\) For brevity, we use the term ‘physical schools’ throughout to indicate the ‘bricks-and-mortar’ places where young people learn, although these might be other forms of educational establishments such as early years provision, pupil referral units or further education colleges.


\(^9\) https://researchspace.bathspa.ac.uk/13242/1/13242.pdf


\(^11\) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1123287/VSH_extension_evaluation_December_2022.pdf. (NB: in a small number of cases, these responsibilities have been allocated to other units within the local authority.)


\(^18\) Following on from the Green Paper published a year earlier.

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**Improving the effectiveness of virtual schools**
3. How did we compile this report?
A key assumption underpinning this report is that some of the differences in young people's outcomes between local authorities will be attributable to the relative effectiveness of their virtual schools, reflecting the contrasting configurations outlined above.

The rationale for this study was therefore to explore and isolate key elements that underpin the effectiveness of virtual schools. This included (a) micro-practices around individual interventions with, and on behalf of, children in care, (b) macro-practices around the configuration, operation and leadership of virtual schools, and (c) environmental factors (e.g. status and organisational location within the local authority) that support effective practices.

We began by holding online expert interviews with four groups who we felt would offer important insights into the work of virtual schools:

1. Retired and other former VSHs
2. Directors of children's services from local authorities
3. Designated teachers\(^{20}\) from a range of school types
4. The National Association of Virtual School Heads (NAVSH) Board

We used the results of these interviews to frame the remainder of the study, alongside our pre-existing knowledge of the evidence on virtual schools from previous studies.

The next stage involved a quantitative analysis of two datasets – see the Appendix for more information about the data used and the analysis undertaken:

2. Data from the annual membership survey undertaken by NAVSH, covering various operational aspects of virtual schools, such as their size, funding, perceived challenges and organisational environment.

We explored correlations between these variables and the attainment and progress measures for children in care at KS4, before developing regression models to provide a holistic picture of which features of local authorities and/or virtual schools were associated with stronger outcomes for children in care. This enabled us to focus in on several topics of interest in the main data collection phase.

This phase comprised seven online group interviews with serving VSHs, with a total of 25 volunteering to participate. We asked them about their perceptions of effectiveness, focused around the features identified in the first two stages. We are cognisant that these volunteers are likely to represent some of the most effective virtual schools, who were keen to tell us about the values and practices that they felt to be key for young people.

Finally, we updated the regression models in light of the data from VSHs and presented the findings to the NAVSH Board as a final ‘sense check’ that they accurately reflected the challenges experienced by virtual schools and that the recommendations would be meaningful for policy and practice.

We believe that this report therefore provides a crucial multidimensional perspective on virtual schools. It foregrounds the views of the current practitioners, but validates these against other professionals and extensive statistical information. We have used short extracts from the focus groups to illustrate our findings. These have been tidied for flow and coherence, for example, by removing repeated words and rendering acronyms in full.

In keeping with our ethical approval from the University of Exeter, all the data collected for this project is presented anonymously and there has been no attempt to identify excellent virtual schools or those with less strong outcomes – not least as the environment around virtual schools can be subject to rapid change. We have therefore made minor changes to some of the quotes in order to avoid the identifiability of individuals or local authorities.

\(^{20}\) Designated teachers are school staff with statutory responsibility for children in care within their school and a key local point of contact for virtual schools.
4. Framing our findings

As we collected and analysed our data, we began to appreciate that barriers to effectiveness impacted virtual schools differently. We have drawn on this discovery as a framing principle for this report. We feel that these distinctions might begin to explain why similar areas often have divergent measurable outcomes for young people.

In considering the data, we identified three forms of challenge experienced by virtual schools (Figure 3):

- **Universal challenges** – these are challenges that impact on all virtual schools in more or less the same way. These include those created by government policy and the national structures of the education and care systems.

- **Differential challenges** – these are similar to universal challenges in that they impact on all virtual schools. However, in this instance the impact is localised and creates significantly stronger barriers for some virtual schools than others. These included those created by the pressures on care systems or the practices of local schools.

- **Localised challenges** – these are challenges that are felt only by a subset of virtual schools, usually due to the organisational structures in that local authority or the nature of its local environment – e.g. rural local authorities or those that are geographically small.

Thus, addressing differential and localised challenges provides a programme for levelling outcomes between local authorities. Similarly, addressing universal and differential challenges provides a programme for improving outcomes across all local authorities.

![Figure 3: Forms of challenge to the effectiveness of virtual schools](image-url)
4.1 Principles and recommendations

In summarising the extensive insights provided by VSHs and our expert interviewees, we have sought to identify underpinning principles of effectiveness and these conclude each of the subsections in the main findings. We believe that the ten principles provide a framework for understanding how the effectiveness of virtual schools can be conceptualised and therefore offers a strong basis for improvement.

We have then attached a recommendation to each of the principles, with the aim of addressing the universal, differential and localised challenges (as outlined above). These are summarised in Section 8 of this report.

4.2 A note on ‘effectiveness’

This study was framed around the concept of ‘effectiveness’ as represented by official statistics on educational progress and attainment. These reflect the most tangible manifestation of effectiveness and one with the most purchase on policymakers and the public discourse.

However, our participants were universally keen to assert a broader definition of effectiveness to capture a wider range of purposeful activities - either as intermediate outcomes or as an end in themselves. These included, inter alia, providing young people with greater stability in their lives, improving motivation for education and engagement with learning, increasing wellbeing and happiness, improving attendance, avoiding school exclusions, influencing local authority policy, preventing poor decision-making and advocating for a greater voice for young people. It was also noted that ‘small steps’ of progress for a young person or averting negative events might be missed by relatively crude national measurement systems, but were crucial to the wider social purpose of virtual schools.

Our participants also pointed out that the measured statistics could be misleading where the work of the local authority - including the virtual school - had been successful in securing a ‘permanence’ solution for the young person. In these situations, the young person would leave care and not feature in the virtual school’s statistics, even if there had been a strong improvement in their educational progress before (and after) permanence.

We recognise and accept these arguments. For the purposes of this report, we have foregrounded those elements of effectiveness that we feel are most likely to impact - directly or indirectly - on measured educational progress and attainment. However, we have also made extensive reference to less tangible elements where appropriate.

“I’m constantly stopping bad things happening as much as making good things happen.”

21 For example, adoption, a Special Guardianship Order or successful reunification with birth parents.
5. Main findings
5.1 Strategic leadership

All the VSHs interviewed in the study felt that their effectiveness was predicated on the ability to have a broad span of strategic influence across and beyond the local authority. They conceptualised educational outcomes as requiring significant action beyond physical schools and therefore being dependent on the effective working of many agencies surrounding the young person – we will explore these in more detail shortly. This was, in part, due to the limited funding at their disposal, which meant that a focus on influencing systems provided a more sustainable long-term return on their efforts than individual casework with schools or young people.

VSHs felt that a substantial part of their role was therefore to marshal other agencies to ensure that children in care were appropriately prioritised and that their needs were being centred. Former VSHs talked about the importance of knowing the ‘go-to person’ in other agencies to influence decisions, while several current VSHs talked about being the ‘glue’ that helped to bind different agencies and systems together. This required personal credibility and influencing skills, as well as regular access to the panels, committees and other structures where strategic decisions were being made. VSHs talked about making direct requests to join, for example, care panels, local headteacher committees and youth justice boards.

Another metaphor used was ‘nag-ability’, representing the skills needed to ensure that other agencies were aware of their responsibilities to children in care and that commitments made were met. This again required individual influence and pre-existing professional relationships, but also a degree of tenacity and resolve. Poor engagement by other agencies was seen as a major barrier to virtual school effectiveness, which was heightened where high proportions of young people were living and/or educated in a different local authority.

While the belief in strategic leadership was universal among the VSHs to whom we spoke, many commented on what they saw as a worrying trend of the role being redirected towards everyday service delivery in some local authorities. This was seen as a professional devaluing of the role, but also one which was unlikely to lead to stronger outcomes for children in care. Expert interviewees also described local authorities where a strategic role for VSHs had never taken root, which could lead to a high turnover of incumbents and a general lack of corporate status and influence for the virtual school. It was also noted that, in smaller local authorities, the VSH was often required to undertake casework with individual young people, limiting their scope for more strategic activity.

Our expert interviewees felt that it was vital that VSHs embodied a clarity of purpose with high expectations about children in care, actively rejecting stereotyped discourses about the inevitability of low educational outcomes. However, they also felt that not all VSHs were achieving this at present, leading to unevenness between local authority areas. They argued there needed to be a broad-based approach that recognised the importance of educational ‘second chances’ and incremental improvements in young people’s (re)engagement with learning.

Finally, there were marked differences between VSHs in terms of the financial environment in which they worked and the implications for staffing and other resourcing. Some had relatively stable funding horizons, with a high proportion of core funding from their local authority, whereas others were reliant on ‘soft’ forms of funding such as the Pupil Premium Plus which were only guaranteed for one year at a time. The latter situation made long-term planning difficult and also led to precarious staffing situations, where valued staff left for permanent contracts elsewhere. There was some corroboration from our quantitative analysis, with more stable forms of funding being associated with stronger outcomes.

**PRINCIPLE 1:** Effective virtual schools have VSHs with clarity of purpose and significant influence within and beyond the local authority, demonstrating a ‘systems wisdom’ that enables them to exercise long-term strategic leadership with confidence and respond rapidly to changing circumstances.

“It’s the uncertainty, because the local authority won’t let you do anything long-term on a grant because it’s not permanent.”

“Multi-agency, multi-partnership pro-active work around vulnerable children I think is absolutely a growing characteristic [for virtual schools].”

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5.2 Organisational status

A key distinction for virtual schools is between those based in education services and those in children’s social care services within the local authority – this will be discussed further in Section 5.3.3. However, the expert groups and data from the NAVSH survey also recounted that virtual schools were afforded a very different status between local authorities with respect to where the virtual school was positioned within the local authority hierarchy and the degree of access to senior leaders (especially the director of children’s services).

Effective virtual schools were seen to be those where the VSH was in frequent contact with senior leaders who could, among other things, resolve interagency disputes, establish new high-level relationships, access additional resources and influence policymaking. This was most commonly found where the VSH reported directly to the director of children’s services or a similarly senior individual, but not exclusively so; effective structures and relationships could provide forms of access that superseded official chains of line management.

Many VSHs recounted the value of having a director of children’s services who had made public commitments around children in care and who made themselves available where necessary. However, others reported having a current or previous director of children’s services who they felt to be distant, ill-informed and/or disengaged from the agenda, where access was extremely limited, mediated through less senior staff or purely focused on perceived ‘problems’ caused by children in care. A particular challenge came when virtual schools were asked to take on new responsibilities (e.g. for children with a social worker) where access to funding – and therefore staffing – was delayed within local authority decision-making processes rather than being passed swiftly to the virtual school.

These differences in organisational status could also have profound operational impacts with respect, for example, to the pay and conditions of the VSH and their staff – e.g. short term or term-time only contracts. Our expert groups noted examples of local authorities that markedly struggled to recruit or retain high-quality staff, leading to a ‘revolving door’, sustained interim arrangements and strategic stagnation.

PRINCIPLE 2: Effective virtual schools are afforded high status and priority within their local authority, with direct access to senior leaders and lead politicians who are well-informed and committed to children in care; this also supports the recruitment and retention of high-quality staff in the virtual school.

5.3 Multi-agency working

As outlined above, VSHs increasingly saw their role as helping to facilitate and guide the ‘team around the child’ (see Figure 4) to ensure that education was afforded equal status with other elements of care – e.g. placements or health. This ‘joining up the dots’ was partly a recognition that virtual schools had insufficient resources to adequately influence educational outcomes alone, as well as a desire to seed sustainable systemic change.

Correspondingly, many virtual schools had, over time, reduced the emphasis on engaging in individual casework with young people in favour of more strategic activities with schools and other agencies – e.g. through the provision of training or embedding staff within other agencies. VSHs who had taken this path felt that this had increased their long-term effectiveness, by helping to ensure a consistency of approach and delivery for the young person. We will address each set of relationships in turn.

22 The structures and terminology vary between local authorities, but the most common pattern is for a director of children’s services to have responsibility for separate departments or directorates covering education and children’s social care, led by directors or assistant directors. We have used the word ‘services’ in this report to reflect this diversity.

23 Often referred to as a ‘Tier 2 officer’, although terminology varies.

“I don’t think it matters where you sit, in social care or education, as long as you can make those relationships with the people at the top.”
5.3.1 Relationships with physical schools

VSHs generally felt that their relationships with physical schools had improved over time, as their role had become clearer and their responsibilities had increased (e.g. for children with a social worker). While other members of the virtual school team had built day-to-day relationships with designated teachers, the VSHs had been able to link more strongly with headteachers as peers; many had joined local headteacher forums as a means of asserting their professional status and building professional networks. The scope to provide training to designated teachers and school staff around children in care on relevant topics such as trauma-informed and attachment-aware practice (see Section 5.7) and adverse childhood experiences (often known as ACEs) had also increased.

However, two main points of difficulty had emerged. A proportion of schools were reported to be habitually reluctant to admit children in care, despite them having statutory priority for admissions. This was variously justified by the school being full, having ‘too many’ children in care already or claiming to be unable to accommodate the social, emotional or mental health needs of the young person. The last of these rationales was reported to be commonly expressed by schools or multi-academy trusts that had adopted inflexible ‘zero tolerance’ behaviour policies.

In addition, an overlapping group of schools were, in the view of VSHs, too quick to seek suspensions or exclusions for children in care. Insufficient consideration was given to the young person’s underlying circumstances, the impact of their life experiences prior to entering care and the associated mental health challenges. Suspension and exclusion could be very disruptive for young people, undermining the stability of their education, dislocating social relationships and weakening their motivation for learning.

VSHs felt that schools and multi-academy trusts could do much more to maintain continuity of education before recourse to exclusion, although the shortage of alternative provision made this challenging – this is discussed in more detail in Section 5.6.

These issues had several consequences. Firstly, there were often delays in getting young person into a new school, leaving them without a place for a considerable period of time. Nearly all the VSHs we spoke to could cite examples where a young person were out of school for many months through no fault of their own, compromising their ability to make educational progress and gain stability. While local authorities are able to ‘direct’ schools under their control to admit children in care, this process could still take several weeks, especially where there was resistance from schools. However, ‘direction’ for academies requires the intervention of the Secretary of State; an extremely lengthy process which could delay admission for substantial periods.

Secondly, negotiations with schools around admissions were often exceedingly time-consuming for VSHs, distracting them from more strategic activity – this was particularly common where the young person had an education, health and care plan (EHCP). This tended to be considerably more significant for admissions to academies and several VSHs suggested that the burden of responsibility to appeal to the Secretary of State should be shifted from the virtual school to the academy seeking to decline admission. VSHs also reported that a growing proportion of their time was occupied by lengthy negotiations with schools about suspensions and exclusions.

Thirdly, and perhaps most worryingly, many VSHs talked about schools in their area that they felt were effectively ‘no go’ areas for children in care. This limited the options available and could lead to the young person ending up in a lower-achieving school or one at some distance from their home. This could be particularly challenging with respect to multi-academy trusts, where their approach to children in care was shared across all the member schools in a geographical area.

Importantly, these difficulties were not evenly distributed. Most VSHs alluded to ‘one or two’ schools in their area that had proved problematic for them, but felt that this was not a huge impediment

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25 More broadly, see https://excludedlives.education.ox.ac.uk
26 Also see https://www.integrated.org.uk
as other schools were available. However, some VSHs were in a position where the proportion was very high, severely limiting their ability to secure and maintain nearby school places for their young people. One VSH explained that over 60 percent of their children in care of secondary school age were educated in other local authority areas, largely for this reason.

Within our quantitative analysis, we found that the proportion of children in care in a local authority recorded as ‘persistent absentees’ had a strong negative relationship with outcomes. In other words, some local authorities had significantly higher levels of school absence and these local authorities tended to have lower progress and attainment at KS4.

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5.3.2 Relationships with special educational needs and disabilities services

In 2021/22, 57.4% of children in care for 12 months or more were recorded as having special educational needs or disabilities (SEND), including 30.2% who had an EHCP, recognising a higher level of need requiring additional resources. The proportion rises with age, such that 72.6% of care leavers have SEND in KS4, with 24.1% attending a special school. These proportions are very substantially higher than the average for young people. Nearly half of SEND for children in care are for social, emotional and mental health reasons, which will be closely aligned with the reasons why they entered care or their experiences within the care system – i.e. related to trauma and other adverse childhood experiences. There is also a group of children who are in care due to profound needs that cannot be managed within the family, who are usually accommodated in special residential schools on a year-round basis.

Our statistical analysis suggests that children in care tend to have less strong attainment in local authorities where there is a larger proportion with SEND. Indeed, all VSHs asserted the importance of SEND provision for children in care and that securing this was a major component of the virtual school’s work. However, accounts varied markedly between VSHs – some had strong relationships with the SEND team in their local authority (including having embedded staff – see Section 6.6.2), but others described extensive delays, limited understanding of children in care and other challenges with securing support in a timely fashion. SEND (and especially EHCP) being a key ‘pressure point’ for virtual schools is therefore consistent with our statistical analysis; these pressures are not equally distributed.

There was consensus among the VSHs that we interviewed that there were fewer challenges arising from regulations around SEND that dictate which local authority has the administrative and financial responsibilities for a young person. This causes complexity as children in care often reside ‘out of area’ due to shortages in care placements (see Section 5.3.3) and so the SEND responsibility can rest with a different local authority to the virtual school. VSHs noted that there was considerable confusion arising from contradictions between the regulations, leading to protracted negotiations and delays for young people. As a result, we noted that there were markedly differing practices across local authorities.

This is further exacerbated when young people move care placements rapidly and/or frequently and therefore ‘belong’ to various local authorities in quick succession, with concomitant bureaucratic delays in transferring paperwork and support packages. This was reported to be particularly problematic in geographically-small local authorities (e.g. in London – see Section 6.2). As a result, VSHs strongly felt that the regulations often worked against the best interests of children in care, delaying school admission or the provision of needed support while a child’s SEND paperwork was being transferred or an EHCP renegotiated.

PRINCIPLE 4: Effective virtual schools have a strong relationship with the SEND team in their own local authority but are able to smoothly navigate the regulations to ensure that care placement moves outside the local authority area do not compromise or delay the support that young people need to engage in learning.

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28 https://www.nuffieldfoundation.org/project/care-leavers-transition-into-the-labour-market-in-england
5.3.3 Relationships with children’s social care services

Virtual schools are conceptualised by VSHs as a ‘bridge’ or ‘translator’ between education and care services within the local authority. The majority are based within the former, but we did not identify that either configuration was inherently more effective.

However, many VSHs described difficulties in engaging consistently with social work teams and other professionals within social care teams – in both their own local authority and others. Several reasons were cited, including workload pressures, staff turnover and high reliance on agency staff amongst social work teams. Indeed, our expert groups and some VSHs talked about how the relatively strong continuity of staffing in virtual schools enabled them to act as an ‘institutional memory’ about individual young people. Perhaps most significantly, some VSHs felt that education was deprioritised within social care teams, being seen as distinctly secondary to care placements and safeguarding concerns. As a result, they reported that social workers frequently did not attend PEP meetings (see Section 5.4) or made decisions about care that disrupted the young person’s education.

VSHs who felt they had an effective relationship with social care teams talked about establishing a shared understanding that education could be a key facilitator in placement stability and safeguarding – links with Independent Reviewing Officers\(^30\) were felt to be particularly important. They had often negotiated a place on key committees or working groups to advocate for educational concerns alongside the other elements of care. They also provided evidence-based training to social workers and foster carers, reinforcing the importance of maintaining school stability to wider outcomes. It was noted that the Covid-19 pandemic and the growth of online communications had opened up new opportunities to build direct relationships with foster carers who were often too busy to attend in-person training. The overarching desire was to develop ‘education-friendly care and care-friendly education’\(^31\).

PRINCIPLE 5: Effective virtual schools take an active role in decision-making processes that impact on the stability of young people’s schooling and ensure that social workers, foster carers and other care professionals understand the importance of education within the young person’s wider wellbeing.

“\textit{It’s a slow, slow process [when] you have to get the EHCP transferred to the other local authority, which can be a mission in itself and involves lots of chasing up while it gets lost between local authorities [and] then all those schools are full.}”

\(^30\) Experienced social workers with responsibility for chairing ‘Looked After Child Reviews’ and scrutinising the care provided to the young person.

\(^31\) A phrase apparently coined by Professor Robbie Gilligan of Trinity College Dublin.
5.3.4 Relationships with Ofsted

VSHs described very different levels of engagement with Ofsted, usually through the periodic inspecting local authority children’s services (ILACS) inspection. For some, their contact was restricted to a very short meeting or telephone call that was intended to cover the educational outcomes for multiple groups of young people. However, others had an extended engagement in the ILACS process, where they reported being able to make a meaningful contribution to ensuring that children in care were centred. The approach of the director of children’s services was felt to be key to the amount of contact that the VSH had with Ofsted. Our quantitative analysis found no relationship between the ILACS rating and educational outcomes.

Some VSHs and expert interviewees felt that Ofsted inspectors – including senior inspectors at a regional level – were not always well-informed about children in care and that the focus of their inspection could therefore be misaligned. More generally, there was concern that school inspections did not do enough to adequately explore the experiences of children in care or children with a social worker, for example, to question why some schools or multi-academy trusts were not more inclusive or supportive.

PRINCIPLE 6: Effective virtual schools are heavily engaged in ILACS inspections and engage with Ofsted more widely, working with inspectors who are well-informed about the educational needs of children in care.

“I didn’t even know there was an annual engagement meeting [with Ofsted] because nobody had told me. Nobody invited me. Now I know. I will make sure that I’m always on that agenda, that I’m always in that meeting.”
5.4 Personal Education Plans

Supporting the production of Personal Education Plans (PEPs) is one of the primary concerns of virtual schools. This process is intended to bring together all that is known about the young person from their physical school, foster carers, social workers and other agencies to devise a plan to meet their needs and provide a pathway to educational progress. Typically, a PEP will recommend additional support or educational enhancements, the costs of which are met through the Pupil Premium Plus funding.

However, the PEP framework was also an area of concern for all VSHs and expert interviewees. The exact methodology for completing PEPs is not prescribed in statute, beyond basic requirements (e.g. that they should have ‘smart’ targets and should be reviewed on a termly basis). In this policy vacuum, many variations have emerged, with differing processes and paperwork – several companies also now offer technology-facilitated ‘ePEP’ systems, generating long-term contractual relationships with local authorities. Again, in the absence of statutory guidance, responsibility for completing the PEP varies across different local authorities, variously resting with the social worker, virtual school or designated teacher in the physical school. Some VSHs were concerned that they were held accountable for the completion of PEPs when they had no formal responsibility for them or powers to require particular practices. Despite probing, we were unable to determine whether any of these models were consistently more effective than others and there was no evidence from our quantitative analysis to suggest a strong relationship with outcomes.

Where there was more consensus was with respect to the underpinning principles and ethos that led to effective use of PEPs, both among the VSHs and our expert groups. Firstly, there was a strong belief that PEPs were a fundamental vehicle for multi-agency working as they effectively required key individuals to engage with the young person’s educational needs on a regular basis, instilling significant moral pressure. Secondly, it was vitally important that the young person’s voice was centred to ensure the relevance of the plan to their current and future lives, including frequent reviews to ensure its continued relevance. It was noted, for example, that the PEP could be organised to avoid any stigma for the young person (e.g. by having them removed from lessons). Thirdly, it was important that the plan itself was deliverable and delivered, with clear lines of accountability; this was generally via the physical school in exchange for Pupil Premium Plus funding. VSHs who believed that their virtual school was effective generally placed the PEP process at the heart of this accountability by ensuring that sufficient resources were available, while maintaining a flexible approach when there had been a change in the young person’s circumstances.

There were, however, challenges to the PEP systems. Some VSHs felt that other agencies did not always engage with sufficient consistency – this was most commonly in reference to social workers (as discussed in Section 5.3.3). Conversely, some participants in our expert groups reported that the engagement of virtual schools could also be inconsistent in some areas or that social workers and foster carers were not sufficiently supported to participate meaningfully. PEPs were reported to become particularly problematic where young people are in care placements and/or schooled outside of the local authority area, where there were often clashes between systems – for example, where designated teachers or foster carers were familiar with a different style of PEP. This was most profoundly obvious for young people in the 16 to 18 age group, where further education colleges might be asked to engage with PEPs in ten or more different formats, reflecting young people from the many different local authorities studying with them.

There were discussions about the possibility of a nationwide PEP system, but these were inconclusive; while it was considered desirable in the abstract, there was no consensus about how this might happen, especially given the differences in current practice and the commercial ePEP contracts in place. VSHs tended to believe that their own approach was optimal or that it best suited their own local circumstances and/or funding constraints. National direction would likely be needed to streamline the PEP system.

PRINCIPLE 7: Effective virtual schools have PEP systems that engage frequently and consistently with all relevant agencies, foster carers and the young person, coupled with an accountability framework to ensure that promises made to the young person are educationally relevant and that they are kept.

“When I started, it was 40% of PEPs, completed by social workers, and the variability was huge [with] little or no focus on education. Now we achieve 98%, 99%, 100% and they’re incredibly impactful.”

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32. For an overview of potential interventions, see https://whatworks-csc.org.uk/research-report/what-works-in-education-for-children-who-have-had-social-workers/
33. Also see https://www.tandfonline.com/doi/abs/10.1080/03054985.2022.2124963
34. A small proportion of VSHs and participants in our expert groups were unconvinced about the effectiveness of PEPs as a tool, seeing it as overly onerous or unconnected to practice.

Improving the effectiveness of virtual schools
5.5 Availability of care placements

All VSHs within our study referred to the challenges associated with the well-attested shortage of care placements available for young people\(^37\). This frequently caused disruption to their schooling, either through a succession of short-term placements or through the need to accommodate a young person in a different geographical area, necessitating a change of school; this was often heightened during KS4 due to a particular shortage of places for teenagers.

While these issues impacted all virtual schools to some extent, the challenges were not evenly distributed. In particular, there were areas (e.g. in London and rural areas) where the dearth of local care placements meant that a high proportion of young people had suffered disruption to their schooling. Several VSHs reported that it was not uncommon for older young people to be housed and schooled in different local authority areas, neither of which were the one that had legal responsibility for them – and potentially at some distance from it. This geographical distance meant that young people could spend long periods in transport to and from school, eating into their study time; this was reported to be more common for young people with an EHCP.

PRINCIPLE 8: Effective virtual schools are fortunate to have a good supply of local care placements for young people, which leads to greater school stability and less wasted time out of school.

5.6 Availability of alternative provision and special school places

The term ‘alternative provision’ describes diverse educational contexts outside those provided by mainstream and special schools. These are primarily designed to support young people to re-engage with learning after a period of disruption, including illness, exclusion or school refusal – either on a full-time or part-time basis. Alternative provision can encapsulate a wide range of activities, from offering a traditional curriculum to something more bespoke or innovative, designed to inspire or connect with the young person. Many children in care, especially those with the most profound or complex needs, will access alternative provision at some point.

The evidence we collected around alternative provision was somewhat contradictory, although there does appear to be a resolution. On the one hand, from our statistical analysis, we found that local authorities that made greater use of alternative provision tended to have lower educational outcomes for their children in care. On the other hand, the VSHs and expert interviewees\(^38\) stressed the huge range in quality in alternative provision that was available. In some instances, they opined that alternative provision was primarily focused on occupying the time of young people with little meaningful engagement with learning.

All VSHs wanted to have purchase on more high-quality alternative provision. They valued it highly as part of a wider strategy of finding appropriate learning opportunities for all young people and an important time-limited ‘bridge’ towards reintegrating young people into mainstream schooling. However, they reported that there was insufficient alternative provision available in general and that it was often very expensive\(^39\) and/or situated at substantial distance from the local authority area. Some felt that what was available locally was very poor or surprisingly quick to exclude children in care, but they were obliged to use it due to the difficulties in accessing mainstream schools (as outlined in Section 5.3.1). This latter point helps to explain the findings from our statistical analysis.

Many VSHs also reported a shortage of places in local special schools, particularly those with expertise in social, emotional and mental health issues. These places were particularly valued for young people who had traumatic experiences before and/or during care and who often struggled to maintain regular engagement with learning in mainstream schools.

PRINCIPLE 9: Effective virtual schools have ready access to nearby, high-quality and value-for-money alternative provision and special school places to enable them to support young people with learning opportunities appropriate to their needs, especially to re-engage them with learning following disruption.

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\(^38\) Including a representative of an alternative provider.

\(^39\) There are different costing models used across local authorities, exacerbating the financial pressure on some virtual schools who have to meet the cost of alternative provision.
5.7 Trauma-informed and attachment-aware practices

As part of the ongoing refocusing of their work from individual casework with young people towards more strategic approaches, many VSHs talked about their work to promote trauma-informed and attachment-aware practices in schools. Emerging over the last ten years, these practices work from the premise that many young people, including those in care, will have endured one-off or persistent traumatic experiences that impact on their ability to form relationships, regulate emotions, handle stressful situations, manage a cognitive load and generally engage with learning. Consequently, it stresses a relational approach in schools, with an emphasis on empathy, trust, respect and the careful use of language to de-escalate stressful situations and help young people to effectively manage their emotions.

VSHs who had focused resources on instilling trauma-informed and attachment-aware practices in schools (e.g. through training, mentoring programmes and/or action research) in their area felt that this was having a substantial positive impact for children in care. The teachers’ focus on building relationships enabled young people to increase their attendance and engagement with learning, while a focus on avoiding sanctions enabled them to spend more time in school on activities that were supporting their learning. It may also have a role in wider efforts to rebuild trust and relationships for young people.

However, the focus on trauma-informed and attachment-aware practices is not evenly distributed among virtual schools. Some had expended considerable efforts and engaged with large numbers of schools in their area in a long-term and multi-faceted way. Others did not refer to trauma-informed and attachment-aware practices, suggesting that their work in this space had been limited or absent thus far. Some noted that some schools were resistant to working in more trauma-informed ways as this is seen as in contradiction to achieving high standards, despite evidence to the contrary.

PRINCIPLE 10: Effective virtual schools support the physical schools in their area to develop trauma-informed and attachment-aware practices and thereby increase the engagement of young people in learning through the creation of a more supportive, empathetic and trusting environment.

“I’m a real, strong advocate of good alternative provision. Good, strong therapeutic trauma-informed alternative provision can make such a difference to the life of a vulnerable child.”

“We’re very aware of the trauma that our young people experience […] We can plan to support in the best way possible, but you can have a young person in a school that’s working perfectly well and then, all of a sudden, everything falls apart.”

6. Other considerations
6.1 Mission drift and identity

As described in Section 2.1, the role of the VSH has evolved rapidly since its inception in 2014, with substantial new responsibilities being added at irregular intervals. There was concern from our expert groups and VSHs that the original focused mission of virtual schools in promoting the education of children in care was in danger of being somewhat lost in a wider remit around vulnerable young people. This was exacerbated in some local authorities where the VSH was also required to manage other services (e.g. safeguarding) alongside the virtual school. While recognising the value of expanding the work of the virtual school to other groups and the degree of faith being placed in VSHs, there was a desire for greater coherence and clarity about the role, as well as adequate planning and financial horizons in the future. One approach mentioned by several VSHs was to provide statutory force to their duties around previously looked-after children and children with a social worker.

Questions were also raised about the applicability of the name ‘virtual schools’ as this was felt to cause confusion about their role and purpose, especially since the Covid-19 pandemic and the growth of online (i.e. ‘virtual’) learning platforms. A clearer remit around education for young people in contact with the children’s social care system might also provide a good opportunity for adopting a new name.

6.2 Geographical issues

Several VSHs made the case that there were particular geographical circumstances that impacted on their ability to be effective. These fell broadly into two groups. Firstly, VSHs from larger rural authorities discussed the challenges formed by distance and the ‘process costs’ associated with having to support young people where travel times could run into hours. Some also drew attention to the distortion of property prices due to tourism which limited the availability of both foster carers and alternative provision – as discussed in Sections 5.33 and 5.6.

Secondly, VSHs from geographically small local authority areas emphasised that their young people were more often living or schooled in other local authority areas (or both), leading to heightened challenges in liaising with schools, social workers and/or foster carers working within different administrative systems (e.g. PEPs). In addition, because of the closeness of the boundaries, young people tended to move between local authorities more frequently, adding to the disruption to their schooling for the reasons discussed above; this was particularly mentioned by London VSHs and those in other conurbations with multiple local authorities.

“You might see that a child lives there and there’s a school down the road [but] it just doesn’t work like that because of the transport network.”
6.3 Post-16 progression

Many of the VSHs participating in the study were keen to reflect on effectiveness with respect to outcomes for young people in the post-16 age group. This group has risen up the policy agenda recently, partly through the piloted extension of the Pupil Premium Plus to cover this group. It was noted that performance indicators for young people post-16 were not yet well-developed and that there was a mismatch between the expectations on virtual schools and their ability to directly affect change. For example, while there was a strong desire to reduce the number of care leavers who were not in education, employment or training (NEET), this was felt to be highly dependent on local factors such as the strength of the youth labour market and the availability of further education and training opportunities. Indeed, there was some evidence from our statistical analysis that children in care in areas with a higher percentage of NEET young adults had less strong educational outcomes at KS4. Some VSHs felt that there was an over-emphasis in policy on progression to higher education which was only an immediately credible pathway for a minority of children in care.

Many VSHs referred to the particular challenges associated with working with further education colleges. In contrast to both schools and universities, few were reported to have a good knowledge about the needs of young people in care, very few had well-established support mechanisms including staff with an identified responsibility (e.g. as a corollary of designated teachers in schools or the ‘single point of contact’ in universities⁴²). It was hoped that the extension of the Pupil Premium Plus would act as a catalyst in this regard and the evaluation of the first six months of the pilot suggests this is the case⁴³.

Furthermore, and as touched upon above, it was recognised that further education colleges themselves had particular challenges in developing their support systems. While some mapped readily onto local authority areas, where it was easier to build and maintain effective relationships with the virtual school, others did not. Some colleges were compelled to engage with many virtual schools by dint of their location in areas with geographically small local authorities (including London). As noted in Section 5.4, this caused difficulties with preparing PEPs, but it also made it harder for individual VSHs to have influence.

6.4 Unaccompanied asylum-seeking children

Unaccompanied asylum-seeking children (UASC) were viewed as a particular challenge for virtual schools, due to the constellation of needs that they present (e.g., around language, trauma and/or cultural expectations). They now comprise 24% of all children in care aged 16 and 17, with numbers growing markedly over the last decade. Their needs present a budgetary pressure for local authorities, but VSHs also reported that there was an absence of specialist provision and that it was often very difficult to secure timely and appropriate learning opportunities as schools and colleges were often resistant to admitting them, especially when they arrived in the local authority outside of the standard admission cycle. The national distribution of UASC is geographically uneven, so this is likely to create stronger challenges for some virtual schools than others. VSHs who had worked in multiple virtual schools described how some local authorities had much greater capability and capacity to support UASC than others.

6.5 Regional structures

Many of the VSHs noted the importance that regional NAVSH networks held for them and the effectiveness of their virtual schools. Formally, these provided the opportunity for professional sharing and mutual support, including, for example, the discussion of policy changes or different approaches to practice (e.g., administration of PEPs). More informally, they formed the basis of personal relationships that could be used to troubleshoot or resolve issues, especially those that related to young people who were housed and/or schooled outside of their own local authority. We additionally heard about one regional group that was pooling its resources in order to collate stronger data about young people and to engage with large multi-academy trusts, which appeared to be a positive practice.

We noted that the VSHs who volunteered to participate in our focus groups tended to be strongly involved in their regional networks. Within the scope of the study, we were unable to determine whether other VSHs were as engaged or whether the discussed benefits from the regional networks were themselves unevenly distributed through the VSH’s level of interest or time to attend meetings and build relationships.

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44 We are conscious that some practitioners are moving away from this phrase as it may misrepresent some young people, but we have retained it here as it remains in common use, especially among policymakers.
46 A national transfer scheme aiming to redistribute UASC more evenly was introduced in February 2022 – previously the largest numbers of UASC were concentrated in local authorities with ports or airports, reflecting where the asylum claim was made.
6.6 Promising practices

In the course of the study, we heard about several practices that had been developed in individual virtual schools that we felt were innovative and potentially worthy of consideration more widely.

6.6.1 Learning reviews

One VSH mentioned a system of ‘learning reviews’ that took place in their virtual school after the resolution of complex problems with a young person’s education. The purpose of these reviews was to learn from the process and provide a multi-agency professional development opportunity to ensure that similar future issues were handled as effectively as possible. We felt that this was potentially a very strong practice, but we were not able to evaluate it within the scope of this study.

“We’re placing members of our team [for] one or two days in our schools and colleges as an extended part of pastoral teams, picking up not only on the looked after child, but also the 30-odd children with social workers, looking at their attendance and bringing things together.”

6.6.2 Embedded or collocated staff

One VSH described how their virtual school had staff embedded within the SEND and admissions teams in their local authority. These individuals were collocated with these teams, but reported to the VSH and had an explicit focus on children in care and the other groups covered by the virtual school. Another VSH had staff embedded in physical schools and colleges on a regular basis. These approaches were felt to support collaborative working and a greater understanding between professionals. More broadly, several VSHs noted that their teams were physically located near to social work teams and that this was beneficial for effective working relationships.

6.6.3 Innovation in PEPs

One VSH outlined the development of tailored PEP forms/processes in their virtual school to cover young people of different types (e.g. UASC) or in particular educational circumstances (e.g. those aiming to re-engage with mainstream school). This approach enables the PEP to be more closely aligned with the needs of young people by asking questions that are specifically relevant, although it does add to the complexity of the overall system. A different VSH described how their PEP process included a commitment to write to each young person in appropriate language after the conclusion of the PEP to ensure that they were able to understand the commitments that had been made.

“We write back to our children and we summarise our PEP meetings: “We talked about this. We did this. We’re really proud of you and this is your next meeting.”
7. Conclusions
In this report, we have sought to draw on accounts from VSHs and other experts to explore the meanings of effectiveness for virtual schools and the implications for policy and practice. Within the scope of this study, we have not sought to formally evaluate practices or interventions, but rather to focus on the core principles that underpin effectiveness, as seen through the eyes of those closest to the system.

A key finding from our study is the importance of stable school attendance for children in care. This is not surprising in itself given our focus on measured attainment – any young person with a disrupted schooling, especially at key points like KS4, is unlikely to attain highly. What is perhaps more surprising is that there are substantial differences in the levels of disruption between virtual schools and the local authorities in which they sit. For example, the proportion of children in care recorded as ‘persistent absentees’ shows a huge disparity, with the average between 2017 and 2019 varying from 6.7% to 21.3%. There are similar differences by fixed term exclusions, but neither can be explained by simple recourse to measures of deprivation or spending.

So why do children in care spend more time in school in some local authority areas than others? There are some strong clues within our findings, which illuminate a complex system which can work to support or undermine a young person’s education. At its worst, it forms a series of interlocking ‘vicious circles’ with which virtual schools (and other professionals) are forced to struggle. We have illustrated how these elements interact through Figure 5, which we believe also provides some insight into how these inequalities might be addressed.

In areas where there is a high proportion of schools that resist the admission of children in care, long delays can result or the young person is routed to a school with long travel times, distant from friends and family. Where there are concentrations of schools that are quick to turn to exclusion due to inflexible behaviour policies, young people miss more school and the need for new admissions is higher.

This also leads to a greater demand for special school and alternative provision places, both of which are unevenly distributed. In some areas, virtual schools are forced to make extensive use of low-quality alternative provision in the absence of other options.

All VSHs reported difficulties with accessing SEND support for the high proportion of children in care with these needs, limiting their ability to engage fully with learning or making school admissions more difficult. This is exacerbated by localised shortages in care placements, which lead to increasing numbers of young people being accommodated outside of their area and more rapid school moves. This, in turn, heightens the problems with accessing SEND support, aggravated by contradictory regulations. Geographically small local authorities face particular challenges in this regard.

We have also highlighted the importance of the VSH themselves. The role demands that the incumbent is strategically influential within and beyond the local authority, with the ability to navigate complex regulatory frameworks and positively manage relationships with schools. Yet we know that some VSHs are recruited with limited experience and afforded a low status within their local authority, with pay and conditions that are not commensurate with the demands of the role, managerial marginalisation and financial systems that undermine long-term planning. Beyond the Ofsted ILACS inspections, in which the coverage of education is patchy, there is no scrutiny of virtual schools or, importantly, the wider infrastructure provided by their local authority.

What these findings speak to is a classic ‘postcode lottery’. A young person’s chances of receiving a stable education in a nearby school with the support they need is, in large part, determined by the happenstance of where they lived prior to entering care. This is clearly an unfair proposition and, we argue, requires urgent attention.

Figure 5: Systems map illustrating the influences of local circumstances on young people’s outcomes (green boxes represent local circumstances, yellow boxes represent consequences)

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*Calculated from the LAIT dataset, where persistent absence is defined as missing more than 10% of sessions.

*The terminology of ‘fixed term exclusions’ matches the data used, but the term ‘suspension’ is now more widely used.
8. Recommendations

In this section, we bring together the ten principles of effectiveness that we identified through our expert interviews and focus groups, linking them to specific recommendations for the Department for Education, Ofsted, the Association of Directors of Children’s Services and the Local Government Association. These recommendations have been formulated to respond directly to the principles, with the aim of mitigating challenges to virtual schools that are variously universal, differential or localised (as discussed in Section 4). We believe that these recommendations will serve to improve the effectiveness of all virtual schools, as well as helping to close the gaps between those with the lowest and highest measured outcomes.

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<thead>
<tr>
<th>Principles of effectiveness</th>
<th>Recommendations</th>
<th>Nature of challenge</th>
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<tr>
<td>1. Effective virtual schools have VSHs with clarity of purpose and significant influence within and beyond the local authority, demonstrating a ‘systems wisdom’ that enables them to exercise long-term strategic leadership with confidence and respond rapidly to changing circumstances.</td>
<td><strong>Stable planning horizons.</strong> The Department for Education should ensure that all VSHs have predictable and longer-term funding and policy environments that enable them to plan strategically, including (a) sufficient recurring funding from their local authority, and (b) ample advance notice of national changes in responsibilities.</td>
<td>Universal</td>
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<td>2. Effective virtual schools are afforded high status and priority within their local authority, with direct access to senior leaders and lead politicians who are well-informed and committed to children in care; this also supports the recruitment and retention of high-quality staff in the virtual school.</td>
<td><strong>Parity of status and pay.</strong> The Association of Directors of Children’s Services and the Local Government Association should encourage their members to ensure that there is parity of status, pay and organisational influence for VSHs to reduce staff turnover rates and increase strategic effectiveness.</td>
<td>Localised</td>
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<td>3. Effective virtual schools are able to rapidly secure school places for children in care and work with schools to avoid suspensions and exclusions wherever possible, thus ensuring that the young person is spending as much time as possible engaged in education in an environment where they feel wanted and respected.</td>
<td><strong>Timely school admissions.</strong> The Department for Education should ensure that schools and multi-academy trusts admit children in care promptly where this is the most appropriate placement (e.g. by reversing ‘direction’ regulations to require schools to appeal decisions rather than the virtual school) and work to reduce suspensions and exclusions for children in care and other time out of school.</td>
<td>Differential</td>
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<td>Principles of effectiveness</td>
<td>Recommendations</td>
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<td>4. Effective virtual schools have a strong relationship with the SEND team in their own local authority, but are able to smoothly navigate the regulations to ensure that care placement moves outside the local authority area do not compromise or delay the support that young people need to engage in learning.</td>
<td><strong>Coherent SEND support.</strong> The Department for Education should review the relevant SEND regulations, with the aims that (a) virtual schools should have a clear role in the decision-making process, (b) that there is more flexibility in approach, and (c) that delays are minimised where the young person is moving between areas.</td>
<td>Differential</td>
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<td>5. Effective virtual schools take an active role in decision-making processes that impact on the stability of young people’s schooling and ensure that social workers, foster carers and other care professionals understand the importance of education within the young person’s wider wellbeing.</td>
<td><strong>Informed practitioners.</strong> The Association of Directors of Children’s Services should encourage its members to ensure that social workers, foster carers and other practitioners receive adequate training about the role of the virtual school and the importance of education as a protective factor for children in care.</td>
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<td>6. Effective virtual schools are heavily engaged in ILACS inspections and engage with Ofsted more widely, working with inspectors who are well-informed about the educational needs of children in care.</td>
<td><strong>Engagement with Ofsted inspections.</strong> Ofsted should increase the focus on the education of children in care within its inspection regime, including greater training for its inspectors, positive engagement with trauma-informed school practices and a consistent role for VSHs in ILACS inspections.</td>
<td>Universal</td>
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<td>7. Effective virtual schools have PEP systems that engage frequently and consistently with all relevant agencies, foster carers and the young person, coupled with an accountability framework to ensure that promises made to the young person are educationally relevant and that they are kept.</td>
<td><strong>Developing PEP practice.</strong> The Department for Education should clarify the statutory guidance on PEPs (including lines of responsibility) and work with NAVSH to develop models of strong practice, with a view to the development of a national PEP or convergence in practice over time – the development of a common post-16 PEP would seem particularly important and timely.</td>
<td>Universal</td>
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<td>8. Effective virtual schools are fortunate to have a good supply of local care placements for young people, which leads to greater school stability and less wasted time out of school.</td>
<td><strong>Adequate care placements.</strong> The Department for Education should work towards a more even geographical distribution of high-quality care placements, particularly acknowledging the importance of young people having stable schooling near to their home, ensuring that VSHs have a role in decision-making.</td>
<td>Differential</td>
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<td>9. Effective virtual schools have ready access to nearby, high-quality and value-for-money alternative provision and special school places to enable them to support young people with learning opportunities appropriate to their needs, especially to re-engage them with learning following disruption.</td>
<td><strong>High-quality special and alternative provision.</strong> The Department for Education should ensure that the development of new, high-quality and focused provision for children in care outlined in the SEND review pays particular attention to addressing ‘cold spots’ where little/none currently exists.</td>
<td>Differential</td>
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<td>10. Effective virtual schools support the physical schools in their area to develop trauma-informed and attachment-aware practices and thereby increase the engagement of young people in learning through the creation of a more supportive, empathetic and trusting environment.</td>
<td><strong>Stronger trauma-informed and attachment-aware practices.</strong> The Department for Education and Ofsted should recognise the positive contribution made by trauma-informed and attachment-aware school practices and actively encourage their development and adoption nationwide.</td>
<td>Universal</td>
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</table>
Appendix: Quantitative analysis

This appendix is intended to provide a brief and accessible summary of our analyses to complement the qualitative data which forms the majority of this report. Given the relatively small number of local authorities, our approach has some important limitations which we will discuss briefly in due course. It is also important to remember that all the measures used in this analysis are subject to local effects that can compromise their reliability and/or validity. Our aim, therefore, is to use the data to provide an insightful counterpoint that might help to corroborate or challenge the accounts offered by VSHs, rather than to draw firm conclusions. The 5% significance level is used, but some other indicative results are also reported.

A1: Local authority data

The first element in our quantitative analysis is based around the data which forms the Local Authority Interactive Tool (LAIT), published by the Department for Education. This brings together a wide range of educational indicators and measures at the local authority level, including many that are specific to children in care and the children’s social care system more broadly.

Included in the LAIT dataset are outcome measures for KS2 and KS4. Data are not available for all local authorities, especially the smallest where the data are suppressed to avoid the identification of individuals. We decided against using the KS2 outcomes due to a high proportion of missing or suppressed data that made it impossible to draw reliable inferences. For KS4, we used two measures: Attainment 8 (which captures young people’s GCSE attainment across a range of subjects) and Progress 8 (which seeks to capture the amount of progress made by young people between KS2 and KS4)\(^48\). Because of the relatively low number of children in care in each local authority, these measures can be volatile year-on-year. We therefore decided to use a three-year average between 2017 and 2019, avoiding the turbulence of the Covid-19 pandemic period. We were able to do this for 145 local authorities.

We then selected a portfolio of other variables based on previous studies and our qualitative data. Our aim was to explore the extent to which outcomes for children in care could be explained with recourse to socio-economic factors (e.g. deprivation levels), educational infrastructure and operational practices within the local authority (e.g. pressures on social work teams).

A1.1 Variables used

We selected the following variables from the LAIT dataset and other publicly available sources, based on the data from our focus groups and expert interviews\(^49\):

- **Index of Multiple Deprivation**: a continuous variable reflecting the deprivation in the local authority across multiple domains.
- **Demand on children’s social care**: a continuous variable reflecting the level of overall demand on children’s social care within the local authority. This is combines data from four variables in the LAIT dataset using latent variable analysis: number of children looked after, number of children with a Child Protection Plan, number of Section 47 enquiries and number of care applications (Cafcass), all per 10,000 children.
- **Workforce pressures**: a continuous variable reflecting the level of pressure on the social care workforce within the local authority. This is combines data from five variables in the LAIT dataset using latent variable analysis: social worker turnover, social worker caseload, social worker vacancies, social work absences and use of agency social workers.
- **Expenditure level**: a continuous variable representing the total spend on children’s services (Section 251 outturn) divided by the number of children in care, acting as a proxy for expenditure levels within the local authority.


\(^49\) We also explored other variables (e.g. urbanity), but none offered additional insight.
A1.2 Individual regression models

Table A1 presents the individual regression models for each of the ten variables listed in the previous section for KS4 Attainment and KS4 Progress — i.e. the simple relationships between each and the outcome measures without controlling for the other variables.

The only two variables with a significant relationship to KS4 Progress were the persistent absence rate (p<.001) and the demand on children's social care (p=.001). In both instances, the relationship was negative, such that higher absences and higher demand were associated with less educational progress for children in care.

The persistent absence rate was also significant for KS4 Attainment (p<.001), along with the EHCP rate (p=.020), with the latter indicating that local authorities with more children in care with higher levels of need tended to have lower attainment. As might be expected, KS4 Attainment was significantly correlated with KS4 Progress (p<.001), such that local authorities with stronger progress for their children in care tended to also record stronger attainment. Two variables narrowly missed the threshold for significance. KS4 Attainment tended to be somewhat higher in local authorities with stronger EET rates for children in care (p=.087) and where fewer children in care were in out-of-area placements (p=.072).

Table A1: Individual regression models for KS4 Progress and KS4 Attainment

<table>
<thead>
<tr>
<th>Variable</th>
<th>KS4 Progress (n=145)</th>
<th></th>
<th>KS4 Attainment (n=145)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (SE)</td>
<td>p</td>
<td>B (SE)</td>
<td>p</td>
</tr>
<tr>
<td>Index of Multiple Deprivation</td>
<td>-.005 (.02)</td>
<td>.822</td>
<td>.331 (.26)</td>
<td>.201</td>
</tr>
<tr>
<td>Demand on children’s social care</td>
<td>-.063 (.02)</td>
<td>.001**</td>
<td>-.355 (.25)</td>
<td>.164</td>
</tr>
<tr>
<td>Workforce pressures</td>
<td>.005 (.02)</td>
<td>.820</td>
<td>-.240 (.25)</td>
<td>.341</td>
</tr>
<tr>
<td>ln Expenditure level</td>
<td>.084 (.10)</td>
<td>.395</td>
<td>.144 (108)</td>
<td>.894</td>
</tr>
<tr>
<td>EHCP rate</td>
<td>-.001 (.03)</td>
<td>.957</td>
<td>-.671 (.29)</td>
<td>.020*</td>
</tr>
<tr>
<td>Persistent absence rate</td>
<td>-.092 (.02)</td>
<td>&lt;.001***</td>
<td>-.965 (.24)</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>Fixed-term exclusion rate</td>
<td>-.005 (.02)</td>
<td>.833</td>
<td>-.174 (.25)</td>
<td>.491</td>
</tr>
<tr>
<td>EET rate</td>
<td>.097 (06)</td>
<td>.089</td>
<td>1.067 (62)</td>
<td>.087</td>
</tr>
<tr>
<td>Out-of-area rate</td>
<td>.006 (.02)</td>
<td>.818</td>
<td>-.470 (.26)</td>
<td>.072</td>
</tr>
<tr>
<td>Ofsted inspection (excellent/good)</td>
<td>-.025 (.05)</td>
<td>.589</td>
<td>.381 (.50)</td>
<td>.450</td>
</tr>
<tr>
<td>KS4 Progress</td>
<td>1.959 (20)</td>
<td>&lt;.001***</td>
<td>1.959 (20)</td>
<td>&lt;.001***</td>
</tr>
</tbody>
</table>

*significant at the 5% level **significant at the 1% level ***significant at the 0.1% level  z = mean standardised, ln = log transformation
A1.2 Multiple regression model: KS4 Progress

We constructed a multiple regression model with the KS4 Progress measure for children in care at the local authority level (Table A2). Multiple regression models aim to explore the individual contribution of individual variables while taking other variables into account. It is important to remember that the relationships identified are correlative and not necessarily causal in nature.

Four variables were significantly associated with higher levels of progress at the local authority level, all else being equal. Progress was lower where there was a higher overall demand on children’s social care (p<.001) and where the persistent absence rate among children in care was higher (p<.001). Conversely, it was higher in local authorities with more care leavers in education, employment and training (p=.020), perhaps reflecting a ‘pull factor’ in terms of local labour market opportunities or the availability of further education. Progress was also significantly higher in local authorities with a higher fixed-term exclusion rate (p=.008), which is perhaps counterintuitive; however, this should be viewed in conjunction with persistent absence, with which it is correlated. Our modelling most likely suggests that absences due to exclusion have lower impact on progress relative to other reasons (e.g. illness), potentially as they are shorter or that they trigger more intensive interventions from the virtual school or other agencies.

It is also notable that six of the variables had no significant relationship with progress. Despite prima facie reasons for assuming that there might be one, there was no direct relationship with deprivation, expenditure or Ofsted inspection rating. Workforce pressure, children in care having an EHCP or living out-of-area featured strongly in our focus groups, but again there was no significant relationship identified by the regression analysis. This could be as these variables were strongly associated with other variables in the model – for example, young people with an EHCP or living out-of-area might be more likely to also be a persistent absentee.

### Table A2: Multiple regression model for KS4 Progress

<table>
<thead>
<tr>
<th>Variable</th>
<th>B (SE)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index of Multiple Deprivation</td>
<td>.029 (.03)</td>
<td>.294</td>
</tr>
<tr>
<td>Demand on children’s social care</td>
<td>-.110 (.03)</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>Workforce pressures</td>
<td>.008 (.02)</td>
<td>.745</td>
</tr>
<tr>
<td>Expenditure level</td>
<td>-.095 (.13)</td>
<td>.483</td>
</tr>
<tr>
<td>EHCP rate</td>
<td>-.039 (.03)</td>
<td>.186</td>
</tr>
<tr>
<td>Persistent absence rate</td>
<td>-.147 (.02)</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>Fixed-term exclusion rate</td>
<td>.068 (.03)</td>
<td>.008**</td>
</tr>
<tr>
<td>EET rate</td>
<td>.129 (.05)</td>
<td>.020*</td>
</tr>
<tr>
<td>Out-of-area rate</td>
<td>.015 (.03)</td>
<td>.586</td>
</tr>
<tr>
<td>Ofsted inspection (excellent/good)</td>
<td>-.092 (.05)</td>
<td>.052</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>-.525 (.95)</td>
<td>.580</td>
</tr>
</tbody>
</table>

R² = .296

*significant at the 5% level  **significant at the 1% level  ***significant at the 0.1% level  z = mean standardised, ln = log transformation
A1.3 Multiple regression models: KS4 Attainment

Table A3 shows two multiple regression models for KS4 Attainment; Model 1 uses the ten variables described above, while Model 2 adds KS4 Progress, reflecting its strong relationship with attainment.

In Model 1, the persistent absence (p<.001) and EHCP rates (p<.001) have a very strong negative relationship with KS4 Attainment. The relationship with demand on children’s social care is also negative (p=.040), while there are positive relationships with the fixed-term exclusion rate (p=.016 – see Section A12 above for a discussion on this) and the EET rate for children in care (p=.046). Once KS4 Progress is added in Model 2, the latter three relationships are no longer significant, leaving just persistent absence and EHCP rates with a significant relationship with KS4 Attainment at the local authority level. Two variables are just outside the threshold for statistical significance. Higher levels of expenditure are somewhat related to stronger attainment (p=.082), while the out-of-area rate is negatively related (p=.086).

Table A3: Multiple regression models for KS4 Attainment

<table>
<thead>
<tr>
<th>Variable</th>
<th>KS4 Attainment (n=145)</th>
<th>KS4 Attainment (n=145)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td></td>
<td>B (SE)</td>
<td>p</td>
</tr>
<tr>
<td>Index of Multiple Deprivation</td>
<td>.232 (.30)</td>
<td>.446</td>
</tr>
<tr>
<td>Demand on children’s social care</td>
<td>-.704 (.34)</td>
<td>.040*</td>
</tr>
<tr>
<td>Workforce pressures</td>
<td>-.019 (.27)</td>
<td>.944</td>
</tr>
<tr>
<td>Expenditure level</td>
<td>1.590 (1.49)</td>
<td>.287</td>
</tr>
<tr>
<td>EHCP rate</td>
<td>-1.111 (.33)</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>Persistent absence rate</td>
<td>-1.473 (.27)</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>Fixed-term exclusion rate</td>
<td>.681 (.28)</td>
<td>.016*</td>
</tr>
<tr>
<td>EET rate</td>
<td>1.220 (.61)</td>
<td>.046*</td>
</tr>
<tr>
<td>Out-of-area rate</td>
<td>-.344 (.30)</td>
<td>.257</td>
</tr>
<tr>
<td>Ofsted inspection (excellent/good)</td>
<td>-.133 (.52)</td>
<td>.799</td>
</tr>
<tr>
<td>KS4 Progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSTANT</td>
<td>7.831 (10.48)</td>
<td>.456</td>
</tr>
<tr>
<td>R²</td>
<td>.282</td>
<td>.506</td>
</tr>
</tbody>
</table>

*significant at the 5% level **significant at the 1% level ***significant at the 0.1% level  z = mean standardised, ln = log transformation
A2: NAVSH survey data

Each year, NAVSH undertakes an online survey of its members to collect data about the operation of each virtual school and the challenges that it faces in supporting outcomes for children in care. We used the data from the 2021 survey, excluding any personal data. We then linked this at the local authority level to the data on KS4 Attainment and KS4 Progress (as described in A1 above). This enabled us to explore the relationships between those outcomes and the operational frameworks for individual virtual schools.

The survey was sent to all virtual schools but, inevitably, not all responded and some only provided partial responses. Once we had cleaned the data and removed very small virtual schools, we were left with 96 usable responses. Those that were fully complete numbered 78. Unfortunately, this total is at the lower end of what is usable for multiple regression analysis. Firstly, there is a general rule that regression requires 10 observations for each independent variable in the regression model. Secondly, there are insufficient data for high levels of confidence about the relationships, so the model is only likely to identify predictors as being statistically significant where they have a very strong relationship with the outcomes.

A2.1 Variables used

We selected the following variables from the NAVSH survey, based on the data from our focus groups and expert interviews:

- **Access to senior leaders**: a yes/no variable reflecting whether the VSH reported having regular one-to-one meetings with their DCS or regular scheduled meetings as part of a senior leadership team.
- **Staffing ratio**: a continuous variable comprising the ratio of virtual school staff (full-time equivalent) to school-aged children in care.
- **Funding source**: a continuous variable comprising the proportion of the virtual school’s funding that is derived from core local authority funds or Section 31 funding. This variable is intended to represent more stable forms of funding, in comparison to funding derived from retaining the Pupil Premium Plus, Dedicated Schools Grant, High Needs Grant or other sources.
- **PEP completion rate**: a continuous variable comprising the average proportion of PEPs reported to have been completed in the last academic year.
- **School responsible for PEP**: a yes/no variable reflecting whether it is the physical school that has responsibility for producing the PEP (as opposed to the local authority – i.e. virtual school or social worker).
- **Good relations with the SEN team**: a yes/no variable reflecting whether the VSH reported ‘excellent’ or ‘good’ relations between the virtual school and SEN team.
- **Use of alternative provision**: a continuous variable comprising the proportion of children in care accessing alternative provision in the last academic year.
- **School admission delays**: an eight-point ranking scale representing the VSH’s perception of the relative importance of school admission delays on outcomes for young people.
- **Availability of school places**: an eight-point ranking scale representing the VSH’s perception of the relative importance of the availability of suitable school places in local on outcomes for young people.
A2.2 Individual regression models

Table A4 presents the individual regression models for each of the nine variables listed in the previous section against KS4 Attainment and KS4 Progress.

The only variable significantly correlated with KS4 Progress was the proportion of funding that the virtual school received from more stable sources (p=.037). This may reflect a greater capacity for the virtual school to be able to make and resource long-term strategic plans - e.g. by employing staff on longer or permanent contracts. In addition, progress tended to be somewhat lower in local authorities which made more extensive use of alternative provision (p=.064), although this narrowly missed the threshold for significance. It is important to note that these results alone do not indicate that the use of alternative provision causes lower progress and attainment. These results could indicate that some virtual schools struggle to secure alternative provision of sufficient quality or appropriateness for young people. Alternatively, the results could reflect that virtual schools are turning to alternative provision where young people are already making less progress than they might, for example, due to engagement issues in mainstream schools.

Also, KS4 Progress tended to be somewhat higher where the VSH felt that school admission delays were a challenge (p=.066). This is, perhaps, counterintuitive as one would generally expect delays to compromise progress and this finding defies ready explanation. One possibility is that some VSHs are substantially more focused than average on gaining access to the highest achieving schools for children in care, getting frustrated by the delays but persisting until a place is secured in one school or another. While the delay might hamper progress in the short run, the young person would ultimately benefit from a richer educational environment. Finally, in relation to KS4 progress, there was some indication that this might be positively correlated with PEP completion rates (p=.154); this would be worthy of further exploration if data could be secured from more virtual schools in the future.

With respect to KS4 Attainment, the only variable that was significantly correlated was the use of alternative provision (p=.040), which was associated with lower attainment. There was some indication that attainment was lower on average in local authorities where schools had responsibility for completing PEPs (p=.122), which would again be worthy of future exploration with a more complete dataset.

<table>
<thead>
<tr>
<th>Variable</th>
<th>KS4 Progress (B (SE))</th>
<th>KS4 Attainment (B (SE))</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to senior leaders (Yes)</td>
<td>.013 (.05)</td>
<td>.465 (.61)</td>
<td>96</td>
</tr>
<tr>
<td>Staffing ratio</td>
<td>.000 (.00)</td>
<td>.005 (.01)</td>
<td>91</td>
</tr>
<tr>
<td>Funding from more stable sources</td>
<td>.002 (.00)</td>
<td>.013 (.01)</td>
<td>90</td>
</tr>
<tr>
<td>PEP completion rate</td>
<td>.004 (.00)</td>
<td>-.019 (.03)</td>
<td>89</td>
</tr>
<tr>
<td>School responsible for PEP (Yes)</td>
<td>-.054 (.05)</td>
<td>-.961 (.62)</td>
<td>89</td>
</tr>
<tr>
<td>Good relations with SEN team (Yes)</td>
<td>-.014 (.06)</td>
<td>-.277 (.72)</td>
<td>89</td>
</tr>
<tr>
<td>Use of alternative provision</td>
<td>-.006 (.00)</td>
<td>-.080 (.04)</td>
<td>78</td>
</tr>
<tr>
<td>School admission delays</td>
<td>.023 (.01)</td>
<td>.175 (.15)</td>
<td>88</td>
</tr>
<tr>
<td>Availability of school places</td>
<td>-.022 (.02)</td>
<td>-.221 (.22)</td>
<td>88</td>
</tr>
</tbody>
</table>

Table A4: Individual regression models for KS4 Progress and KS4 Attainment

*significant at the 5% level **significant at the 1% level ***significant at the 0.1% level

A2.3 Multiple regression models

This section presents two multiple regression models relating to progress and attainment at KS4 (see Table A5). Multiple regression models aim to explore the individual contribution of individual variables while taking other variables into account. It is important to remember that the relationships identified are correlative and not necessarily causal in nature. Also, these models should be considered indicative for the reasons outlined above – the sample size is quite small for the use of regression techniques in a complex social space such as this.

With respect to KS4 Progress, no variables were significantly related. However, two lie just outside this threshold, with progress tending to be higher, all else being equal, in local authorities (a) where the virtual school receives a great proportion of its funding from in more secure forms (p=.078), and (b) where fewer young people access alternative provision (p=.059). With respect to KS4 Attainment, the only significant relationship is with the use of alternative provision (p=.035).

Table A5: Multiple regression models for KS4 Progress and KS4 Attainment

<table>
<thead>
<tr>
<th>Variable</th>
<th>KS4 Progress (n=78)</th>
<th>KS4 Attainment (n=78)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (SE)</td>
<td>p</td>
</tr>
<tr>
<td>Access to senior leaders (Yes)</td>
<td>.023 (.052)</td>
<td>.663</td>
</tr>
<tr>
<td>Staffing ratio</td>
<td>.000 (.001)</td>
<td>.686</td>
</tr>
<tr>
<td>Funding from more stable sources</td>
<td>.002 (.001)</td>
<td>.078</td>
</tr>
<tr>
<td>PEP completion rate</td>
<td>.003 (.003)</td>
<td>.264</td>
</tr>
<tr>
<td>School responsible for PEP (Yes)</td>
<td>-.023 (.054)</td>
<td>.669</td>
</tr>
<tr>
<td>Good relations with SEN team (Yes)</td>
<td>.029 (.060)</td>
<td>.626</td>
</tr>
<tr>
<td>Use of alternative provision</td>
<td>-.006 (.003)</td>
<td>.059</td>
</tr>
<tr>
<td>School admission delays</td>
<td>.020 (.013)</td>
<td>.125</td>
</tr>
<tr>
<td>Availability of school places</td>
<td>-.030 (.021)</td>
<td>.150</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>-1.434 (.267)</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>R²</td>
<td>.172</td>
<td></td>
</tr>
</tbody>
</table>

*significant at the 5% level **significant at the 1% level ***significant at the 0.1% level
A3: Summary

The purpose of these analyses was to attempt to identify factors that vary substantially between local authorities and that might therefore help to explain the wide variations in KS4 outcomes for children in care. Three factors appear to be paramount with respect to attainment: persistent absence rates, EHCP rates and the use of alternative provision. It is likely that these are themselves interrelated.

Progress between KS2 and KS4 was lower in local authorities with higher overall demands on children’s social care and where more care leavers were not in education, employment or training. There was also an interaction between persistent absence and fixed-term exclusions which requires further consideration. Finally, there was some evidence that stronger progress was associated with virtual schools with more stable funding models.

Interestingly, many of the variables that we selected for the regression models were not related to the outcome variables. Area deprivation had no direct relationship with outcomes, although it was correlated with the overall demand on children’s services. Ofsted ILACS ratings appeared to have no relationship with outcomes, albeit that education currently only forms a small (and variable) element in the inspections. Social care workforce pressures were also not related to outcomes, although this might reflect their universality across local authorities. Similarly, virtual school staffing levels, relationships with the SEN team and the organisational status of the VSH were not salient within our regression models. There was some limited evidence that elements of the PEP and school admissions processes might be related to outcomes.

Finally, due to the limited nature of the data available, these findings should be treated with caution and as indicative rather than conclusive. We have used secondary data that have been collected for other purposes, which may not well represent the realities within local authorities and their virtual schools. The small sample sizes, especially for the NAVSH survey, is also an important limitation. Therefore, where these findings do not correspond with the qualitative findings comprising the majority of this report, it should not be assumed that the quantitative findings should take precedence.