

Evaluation of the City of York Councils' Universal Free School Meal Pilot: Interim Report

1. Background
2. Methods
 - i. Pilot design
 - ii. Data collection & analysis
3. Findings from the Breakfast Pilot (Burton Green Primary School)
 - i. Breakfast club uptake
 - ii. Attendance & lateness
 - iii. Impacts on behaviour & academic outcomes
4. Findings from the Lunch Pilot (Westfield Primary Community School)
 - i. School lunch uptake
 - ii. Attendance
 - iii. Impacts on academic outcomes
 - iv. Meal choices
5. Discussion of findings
 - i. Impact of adopting universalism in school meals
 - ii. Nutritional aspects of school meals
 - iii. Factors impacting school meal uptake.
 - iv. Pilot design
 - v. Interim conclusions
6. References
7. Appendices

1. Background

In the United Kingdom, 17% of all children live in food-insecure households (Francis-Devine, Danechi and Malik, 2023). Living with food insecurity during childhood has wide reaching impacts including reduced diet quality, poorer emotional wellbeing and worsened long-term physical health outcomes, including an increased risk of obesity (Food Foundation, 2023, Dean et al., 2023 and Yang et al., 2022). Additionally, hunger during the school day critically affects a child's readiness to learn, with lowered ability to concentrate often resulting in poorer behaviour and academic outcomes (Adolphus, Lawton and Dye, 2013 and Child Poverty Action Group, 2023). School food, both lunches and breakfasts, offer a practicable opportunity to reduce income-related diet inequalities and promote life-long wellbeing in children (The Food Foundation, 2021).

In England, school lunches are available free of charge to all key stage one (KS1) pupils, and to eligible pupils in key stage two (KS2) (GOV.UK, 2024). Pupils are generally eligible for free school meals (FSMs) if they come from a household that receives income-related benefits and has an annual income below £7,400 (GOV.UK, 2024). For ineligible pupils, the cost of a school meal can vary; in 2022 the average cost was £2.40 per day, however this is estimated to have risen to around £2.65 in 2023 (LACA, 2024).

A survey by Kellogg's in 2016 found that 85% of schools have a breakfast clubs (BC), or some form of breakfast provision (Kellogg's, 2016). A more recent survey in Leeds conducted in 2024 found that, 90% of primary schools had breakfast provision of some kind. Currently, support for school breakfast provision is largely provided by the National School Breakfast Programme (NSBP) - a government-led scheme to which schools with at least 40% of pupils from income-deprived areas can apply to receive a 75% subsidy for food and delivery costs - , or Magic Breakfast, a charity offering delivery of breakfast foods to eligible schools; in return for a membership fee (Magic Breakfast, 2023a). Many schools are unaware of these schemes, ineligible, or may choose not to make use of them. Some opt to run their own BC or use an external third-party, however for these, there is usually a cost to attend (Food, a fact of life, 2024). In 2024 the incoming government announced that funding would be provided to all schools to run free BCs (GOV.UK 2024e). This is a marked improvement to previous schemes where only eligible schools could receive assistance, and even then, the schools were still required to contribute towards costs. The logistics and practicality of how this scheme will be implemented are unknown, but likely to be moulded by the outcomes of pilot programmes around the country, and findings from the early adopter scheme (GOV.UK, 2024e).

To investigate the impact of providing universal school food, the City of York Council (CYC) is piloting two universal free school meal (UFSM) programmes at two primary schools in York. The first, looking at universal free school lunches is taking place at Westfield Primary Community School, and the second, looking at a universal free school BC at Burton Green Primary School. Both pilots began in January 2024 and are supported by funding from both the CYC and the York Community Funds' Hungry Minds Appeal. The aim of this interim report is to evaluate the first two terms of the pilot programmes using quantitative data from the two schools.

2. Methods

i. Pilot Design

The BC at Burton Green was introduced to provide all pupils at the school with access to a free healthy breakfast each day. The introduction of this BC was designed so as not to compete with the schools existing before-school club, which costs £2 per day. The pilot BC starts later, beginning 20-minutes before the school day starts. The pilot BC does not aim to provide wrap-around childcare, but a healthy breakfast and soft-start to the school day. A weekly menu for the pilot is provided by the schools' caterers and runs on a fortnightly rotation. The offering is substantial and varied, including choices like baked beans on wholemeal toast, fruit-topped porridge and toasted bagels, each accompanied by fresh fruit, or juice. Persistent absentees, those who were often late, or other pupils who the school felt could benefit from the BC were encouraged to attend, however it is open to all pupils and attendance is optional.

The school lunch pilot provided universal access to free daily school lunches for all pupils at Westfield Primary School. Prior to the pilot, 177 pupils in KS2, or 36% of the school were required to pay £2.50 per day for a school meal, totalling £475 for a full year. Each day pupils had the choice of bringing a packed lunch from home, or choosing between a main meal, vegetarian main meal, filled jacket potato or cheese panini, all served with a daily side dish, vegetables, and dessert. The choices run on a 3-week termly rotation. The menus and food are provided by NYES Catering, who assure the foods compliance with Government School Food Standards.

ii. Data collection & analysis

To reduce the burden on the schools, the impacts of the two pilots were evaluated using data routinely collected by the two schools. The two schools made this data accessible to researchers in an anonymous format. For the Burton Green BC pilot, available data comprised of each pupil's termly attendance and lateness, end-of-year academic attainment from years 2 and 6, termly behavioural data and number of pupils attending the breakfast club each day, as well as which pupils were regular attendees. Data from the Westfield school lunch pilot, consisted of each pupil's daily lunch choice, termly academic attainment data for all year groups and termly attendance as a percentage for each pupil. In addition, each school provided the gender, year group and FSMs eligibility status of each pupil. Comparisons between the pupils who are eligible for FSMs, and those who are not eligible are used to demonstrate any specific impacts that the pilot programmes may have on children from more socioeconomically deprived backgrounds. During the first two terms of the pilot, Burton Green had 121 pupils (54% girls, 46% boys) and Westfield had 470 pupils (50% boys, 50% girls). At both schools, approximately 36% of pupils were eligible for a free school meal in the 23/24 academic year which is above the national average of 24.6% (GOV.UK, 2024c).

Before data collection commenced, information sheets and consent forms were provided to all parents and guardians at each school, detailing the purpose of the evaluation, and how to opt-out. Opt-out consent was employed in this study to maximise the sample size and avoid the exclusion of pupils from lower socioeconomic groups who may be underrepresented when opt-in consent is used.

Ethical approval for this evaluation was granted by the Faculty Research Ethics Committee (FREC) for Business, Environment and Social Sciences at The University of Leeds (Ethics Ref: 1388, awarded 26/06/2024).

3. Breakfast Club Pilot Findings (Burton Green Primary School)

i. Breakfast Uptake

Since the pilot began, the number of pupils attending the BC has increased, with an average of 32 (27% of all pupils at the school) attending each day in the spring term, and 40 (34%) in the summer. Figure 1 displays the daily number of pupils attending, as a percentage of all pupils on roll at the time. A total of 73 pupils (60% of the school) were identified by the school as BC attendees across the two terms the pilot has run so far, although not all attended every day. Pupils of all ages make use of the BC, however chi-squared analysis (Appendix 1) demonstrates a significant association between KS and FSM eligibility status, and likelihood of attending the BC ($p=0.013$). Significantly more KS2 pupils not eligible for FSMs attend the breakfast club than would be expected by chance ($p=0.003$).

Figure 2 shows the average BC attendance on each day of the week. Attendance is generally lowest on Mondays, with an average of 27% of all pupils attending, and rises steadily through the week to around 32% attendance on Thursdays and Fridays. This trend is consistent regardless of which of the food menus is on offer; attendance when week 1's menu is on offer was, on average, 30% of the school, and 31% with week 2's menu suggesting a similar trend in uptake regardless of the food on offer.

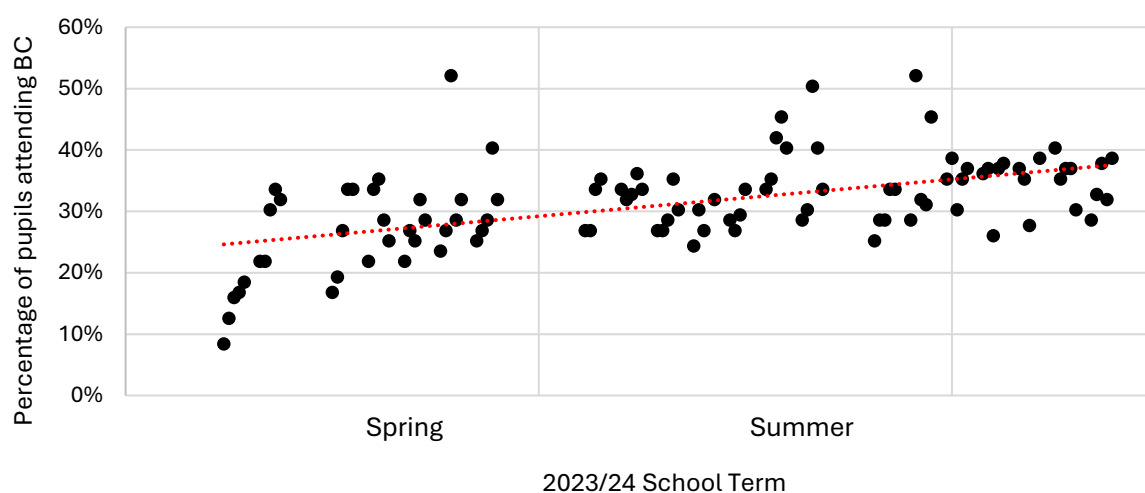
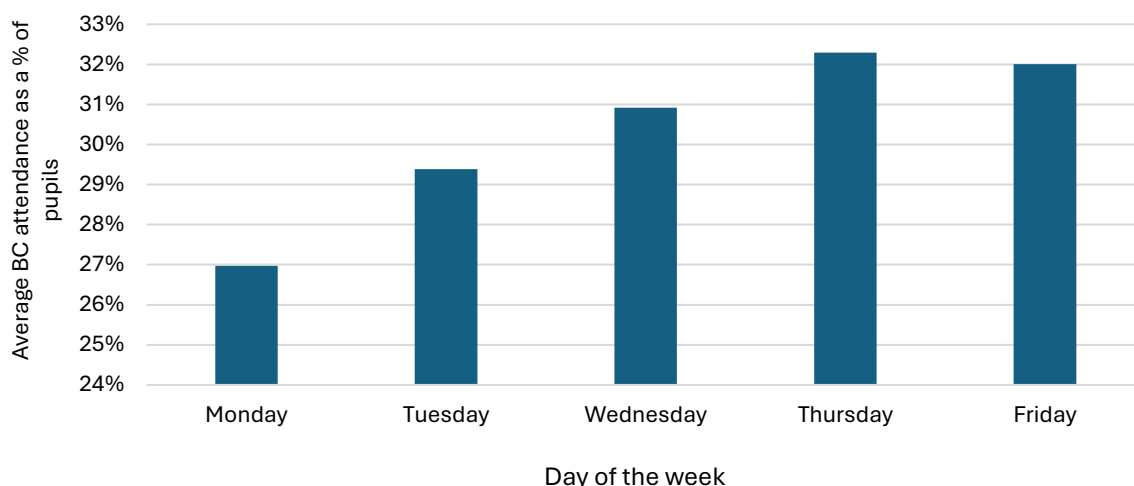


Figure 1. Daily breakfast club attendance as a percentage of students on roll (Burton Green)

Figure 2. Average breakfast club attendance shown per day of the week (Burton Green).



ii. Lateness & Attendance

Overall school attendance rose slightly between the autumn and spring term, from 93.3% to 93.4%, before dropping in the summer to 91.2%, a trend similar to nationwide data (GOV.UK , 2024b). Figure 3 shows the change in attendance over the course of the year between four distinct groups of pupils: those who are eligible for FSMs that attend the BC (n=52); those who are eligible for FSMs that do not attend the BC (n=10); those who are not eligible for FSMs that do attend the BC (n=21); and those who are not eligible for FSMs that do not attend the BC (n=30). The FSMs eligible pupils who attend the BC, and the FSMs ineligible pupils who do not attend, both demonstrated an overall increase in attendance between the autumn and spring terms, whereas the other two groups demonstrated an overall decrease in attendance between these terms. Between the spring and summer terms, when the pilot was running, it was the pupils that did not attend the BC, both who are and aren't eligible for FSMs, that demonstrated the steepest decline in attendance, with those who did attend the BC demonstrating less overall decline during this period.

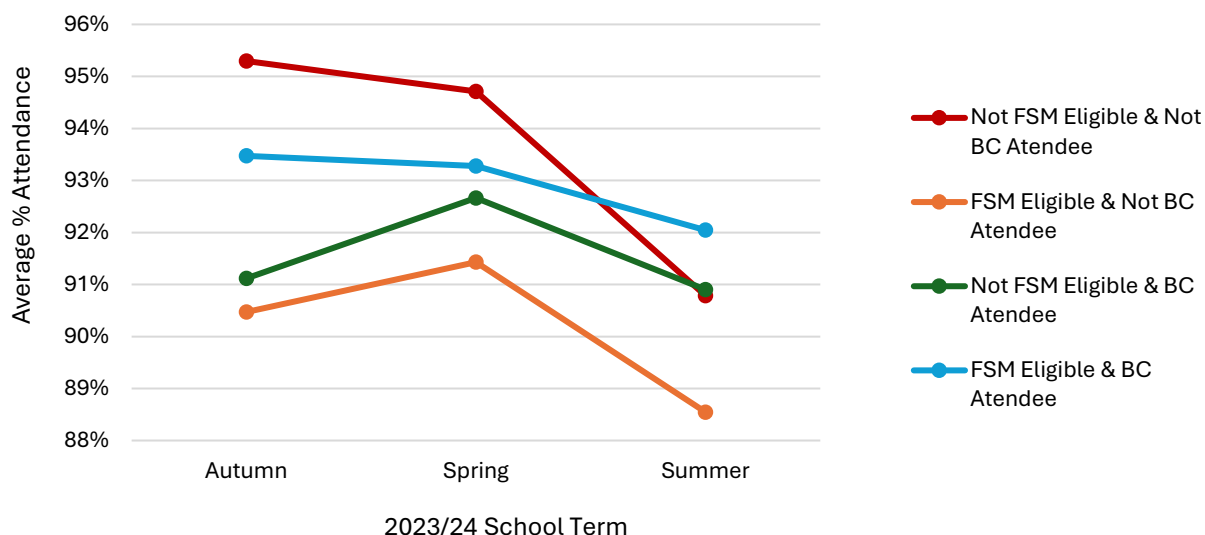


Figure 3. Average attendance per term, split for FSM eligibility status and BC attendance (Burton Green).

During the first two terms of the pilot, pupil lateness at the school decreased to the point where improving punctuality was no longer a component of the school's development plan (a document used to set out how the school will reach its key objectives for improvement). In the autumn, before the pilot began, lateness occurred an average 2.81% of the time, this reduced to 1.95% and 1.42% in the spring and summer terms. Although average overall attendance for pupils eligible for FSMs remains lower than the attendance of pupils not eligible, attendance for those pupils who attended the breakfast club was brought in-line with the non-FSMs eligible pupils by the second term of the pilot. Figure 4 demonstrates the change in incidences of lateness over the course of the pilot between the same four groups of pupils, split by FSM eligibility status and BC attendance. For pupils that are eligible for FSMs that attend the BC, incidences of lateness decreased throughout the pilot. Contrastingly, incidences of lateness in FSMs eligible pupils that did not attend the BC have risen. A similar pattern according to BC attendance is also seen in pupils not eligible for FSMs, however here the variation is smaller. Regardless, in both groups it is the pupils who attend the BC that demonstrate a decrease in incidences of lateness.

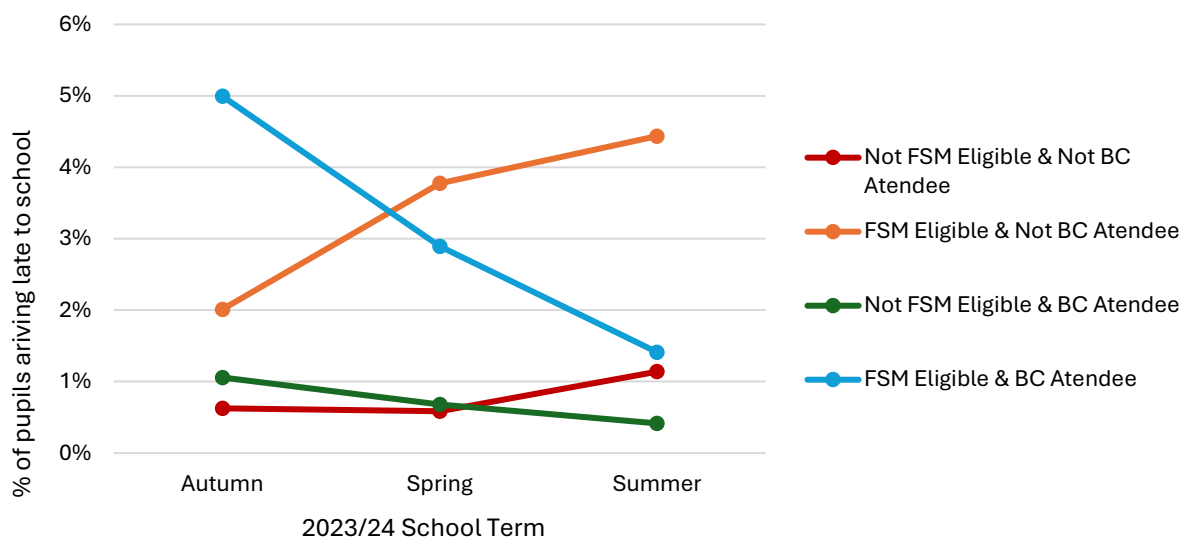


Figure 4. Average lateness per term, split for FSM eligibility status and BC attendance (Burton Green).

iii. Behaviour & academic outcomes

The number of poor behaviour marks received by pupils in at the school reduced from 19 in the autumn term before the pilot began, to 8 in the spring and 11 in the summer term, however no statistical association was observed between breakfast club attendance and the likelihood of receiving a poor behaviour mark.

Additionally, no associations were observed between breakfast club attendance and the likelihood of reaching or exceeding the expected standard in end-of-year academic assessments in reading, writing and maths for years 2 and 6 (n=40).

4. School Lunch Pilot Findings- (Westfield Primary Community School)

i. Lunch Uptake

Figure 5 displays how school lunch uptake has increased since the pilot began at Westfield. In the Autumn term before the pilot started, an average of 63% of pupils were having a school lunch each day. This increased to 79% in the spring term, when the pilot began, and remained similar throughout the summer term, with an average of 80% of pupils choosing a school lunch each day.

As pupils could select each day whether they had a school lunch, or a packed lunch, many chose a combination of the two. In the Autumn term, 40 pupils at the school never had a packed lunch, in the spring term and summer terms, 18 and 20 pupils never made use of the free school lunches. In comparison by the summer term, 155 pupils were making use of school lunches 100% of the time, an increase of more than double from 77 pupils in the Autumn term.

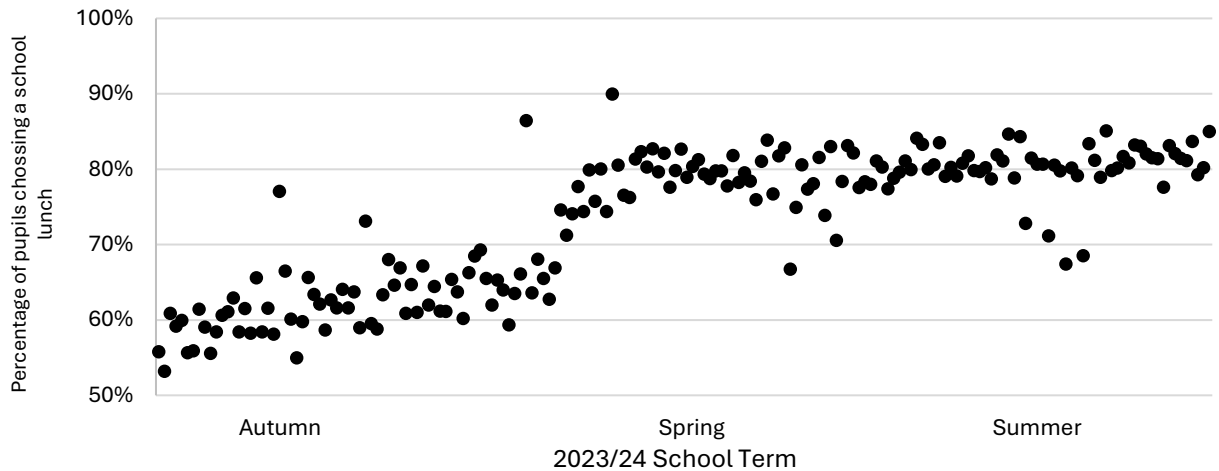


Figure 5. Daily school lunch uptake, shown as % of pupils having lunch each day (Westfield).

Figure 6 shows the differences in uptake between different groups of pupils, split according to KS and FSMs eligibility status: KS1 pupils eligible for FSMs (n=56); KS2 pupils eligible for FSMs (n=111); KS1 pupils not eligible for FSMs (n=126); and KS2 pupils not eligible for FSMs (n=177). School lunch uptake has considerably increased in KS2 pupils who do not fit the eligibility criteria for FSMs. Rising from less than 40% to just under 80% of pupils having a school lunch each day, uptake in this groups is brought in-line with the other groups at the school, at around 80%. Although less change is seen in the three groups of pupils who were already eligible to access free lunches, figure 6 does demonstrate that there has been an overall increase in the average uptake for these groups during the pilot.

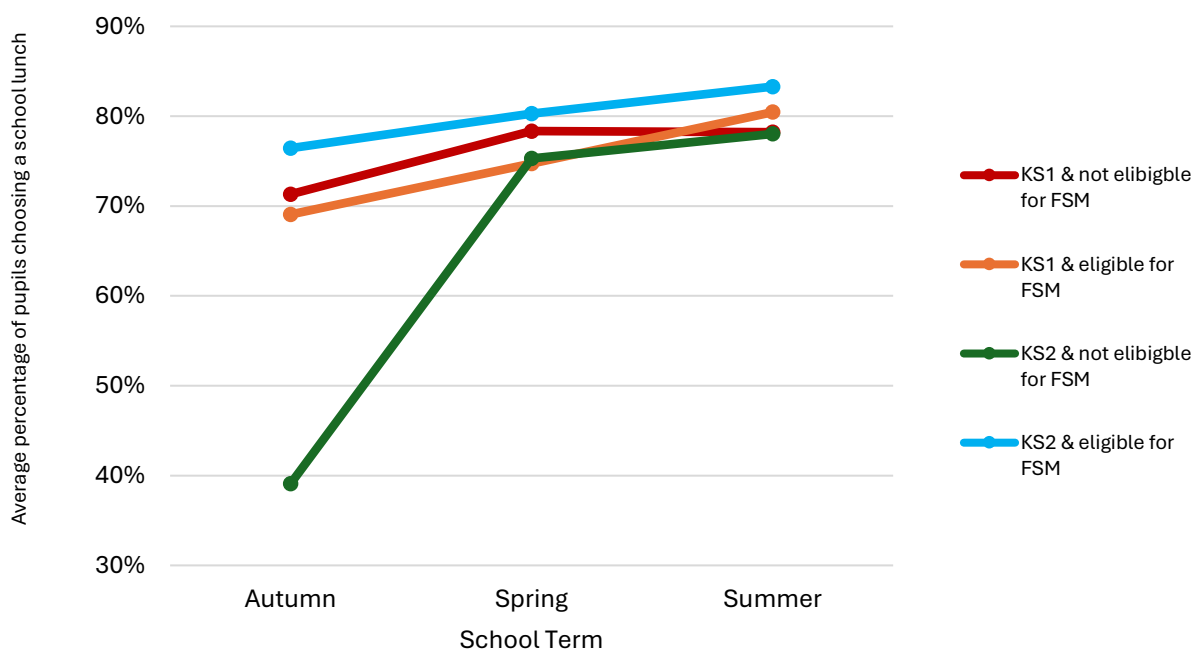


Figure 6. Average school Lunch uptake per term, split by key stage and FSM eligibility status (Westfield).

ii. Attendance

Figure 7 shows the school's average attendance for years 1-5 (n= 295). In the year prior to the pilot, overall attendance dropped in the summer term, before rising again in the autumn. Contrastingly, in the spring term when the pilot began, an increase in attendance was observed, followed by a further increase into the summer term. Figure 8 shows the differences in average attendance over time for the same four groups of pupils: KS1 pupils eligible for FSMs (n=35); KS2 pupils eligible for FSMs (n=74); KS1 pupils not eligible for FSMs (n=61); and KS2 pupils not eligible for FSMs (n=125).). Figure 8 shows that pupils eligible for FSMs drove the overall decrease in attendance during the 2023 spring term. Figure 8 also shows that the overall increase seen during the first two terms of the pilot is driven by the improved attendance of KS1 pupils eligible for FSMs.

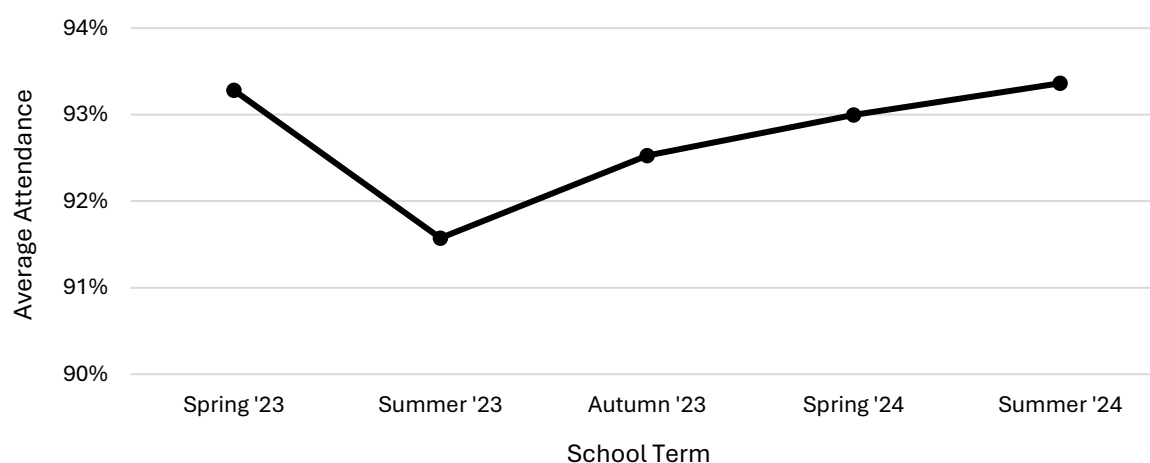


Figure 7. Average attendance for years 1-5 (Westfield).

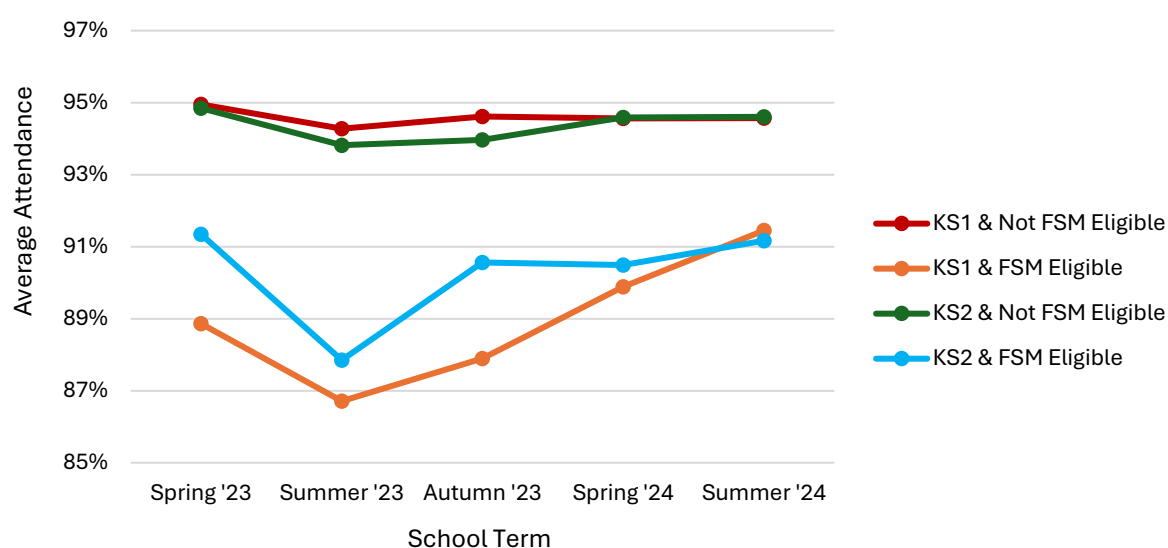


Figure 8. Average attendance for years 1-5 split by key stage and FSM eligibility status (Westfield).

iii. Academic Outcomes

No statistical associations were observed between school meal uptake and termly academic attainment in reading, writing or maths for years 1-6 (n=399).

iv. Meal Choices

Each day at Westfield School, all pupils have the choice of bringing in a packed lunch or selecting one of four school lunch options: a main meal or vegetarian main meal, (both of which followed a 3-week termly rotation), a filled jacket potato, or a cheese panini. Figure 9 shows how popularity for all four school-lunch options increased during the pilot, with hot dinners the most popular, followed by cheese paninis. Selection of the main school lunch option rose by 26% during the first two terms of the pilot. Vegetarian meals selection increased 50%, jacket potatoes increased 25%, and cheese paninis increased 33%. The popularity of bringing in a packed lunch on the other hand, dropped 46% between the autumn and summer terms.

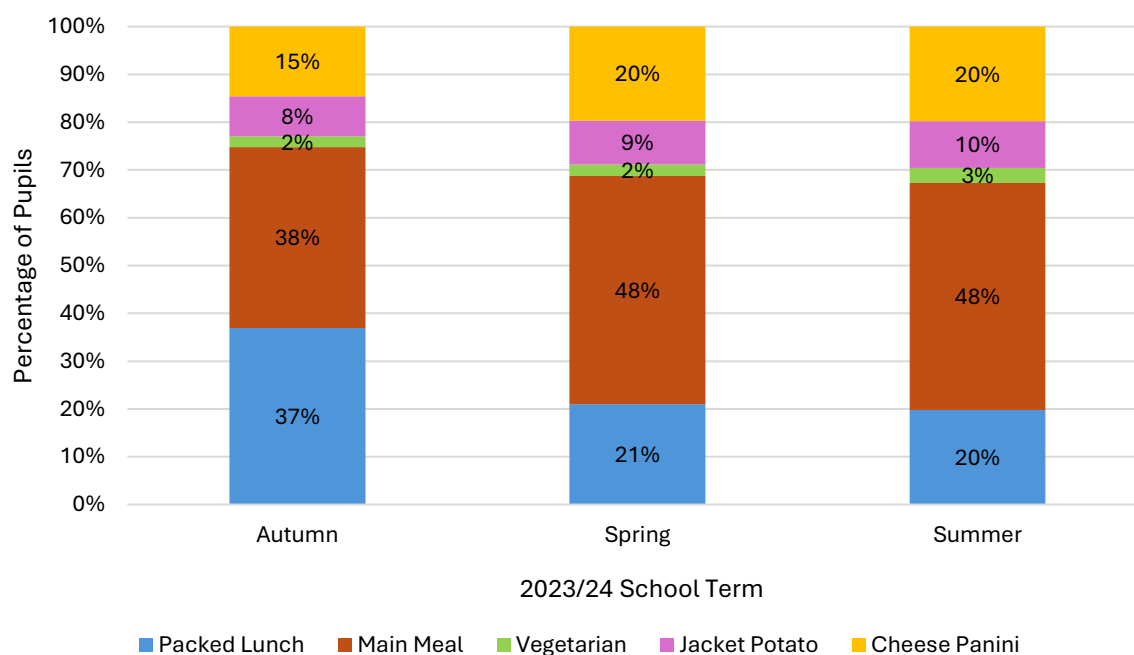


Figure 9. Proportion of each lunch choice per term (Westfield).

Figure 10 illustrates the proportion of each type of lunch chosen, according to the menu choices available on Monday each term. Mondays are used here as an example of the trend, showing that the lunch options on offer impact the choices that the pupils make. Each rotation includes pizza as the main option on one Monday every three weeks. In the autumn and summer terms this is in week 1, and in spring week 2. Figure 10 shows that the main lunch option is chosen by more pupils when it consists of pizza. Figure 10 also shows that regardless of the main lunch option on offer, the proportion of pupils having a packed lunch remains consistent.

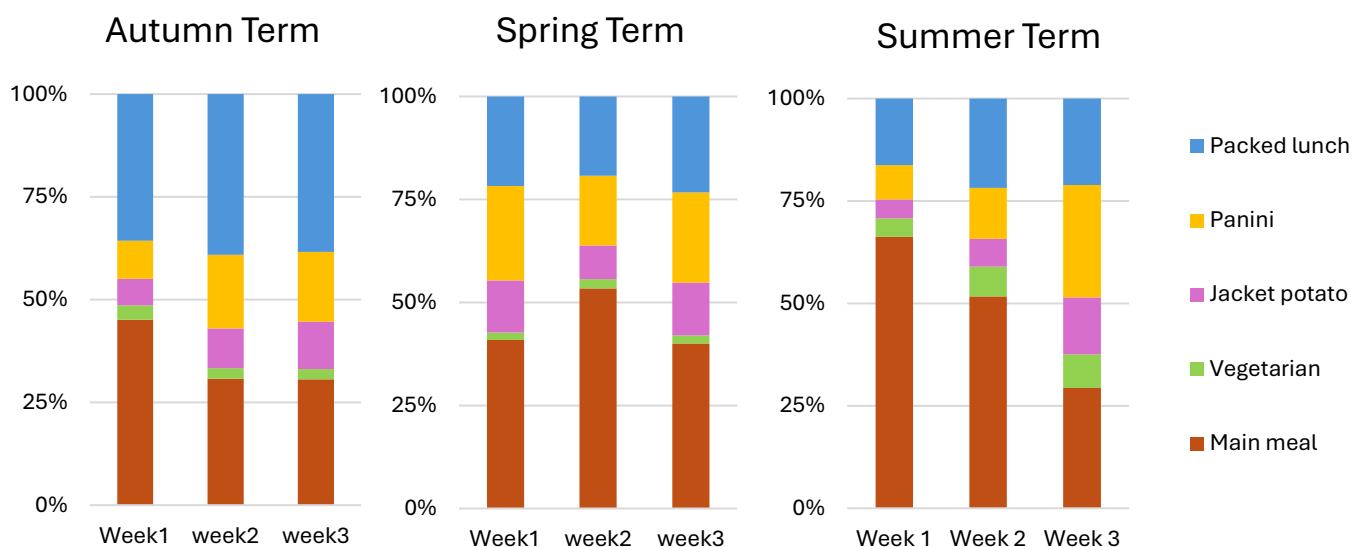


Figure 10. Lunch choices on Mondays (Westfield).

5. Discussion of Findings & Conclusions

i. Impact of adopting universalism in school meals

The results of the lunch pilot at Westfield primary demonstrate that adopting universalism in school lunches increases uptake, consistent with other findings (Holford, 2015, Schwartz and Rothbart, 2019, Kitchen et al., 2010). Although there is no baseline comparator for the breakfast pilot, as the healthy BC is a new addition to the school, the average number of pupils attending the club each day during the summer term, 40, exceeds the national average of 35 (Kellogg's, 2016), despite Burton Green being a relatively small school.

Data from both pilots demonstrate clear impacts on KS2 pupils who are not eligible for FSMs. These are the pupils that without the pilot programmes in place, would have no access to free school food. An almost 100% increase in school lunch uptake within this group at Westfield points towards a clear desire to access school lunches, but also indicates that cost may have been a primary barrier. At Burton Green, significantly more of these pupils than would be expected attend the BC, again signifying a desire to access school meals within this group. The Food Foundation (2024) report that around 70,000 school-age children from Yorkshire and the Humber who are living in poverty are not eligible for FSMs under current criteria. The UFSM pilots have granted these pupils, who may live in food-insecure households but are above the threshold for FSMs, access to a meal at school each day. In addition to this, some pupils who prior to the pilot had access to FSMs, also demonstrated an increase in school lunch uptake at Westfield. This may be due to an alleviation of the stigma that surrounds FSMs when they are offered on a means-tested basis (Holford, 2015 and Schwartz and Rothbart, 2019).

The data from Burton Green demonstrates a clear association between BC attendance and punctuality; those who attend the BC are already at school by the time the school day begins, and are, therefore maximising time spent learning each week and may show greater readiness to learn because they are already there and settled. Although the preliminary data collected from the two schools so far does not demonstrate any associations between having a school lunch or attending the breakfast club and academic attainment or behaviour, samples are small and research from the IFS has found that all pupils in a school with a universal breakfast club may benefit from the improved learning environment that is generated, regardless of if they attend or not (Crawson, Farquharson and Greaves, 2016). This highlights the potential scope for UFSMs to produce whole-school improvements, rather than improvements for just for some pupils.

ii. Nutritional aspects of school meals.

Strict school food standards dictate what can and must be served for school lunches. However, no standards exist for packed lunches, which have been found to contain less fruits and vegetables, and more sweetened drinks, crisps and confectionary than school meals. Only 1% of packed lunches are estimated to meet the same standards expected of school food (Evans et al., 2010). The rise in uptake of school meals at Westfield, as a result of adopting UFSMs, will have a considerable impact on the whole-diet nutritional adequacy of the pupils at the school, contributing to improved long term health outcomes (Evans et al., 2016). School food standards also extend to breakfast foods, encouraging healthy, fibre-rich and low sugar options that sustain pupils throughout the morning (GOV.UK, 2024d.). The contribution of a healthy breakfast to improved diet quality, including consumption of fibre, calcium and many other critical nutrients is widely reported (British Nutrition Foundation, 2023). This demonstrates the potential to generate long-lasting benefits for the children who attend the BC at Burton Green.

iii. Factors impacting school meal uptake.

At Westfield School, the main lunch option on offer does not seem to considerably impact the number of pupils opting for a packed lunch over a school lunch. Therefore, it is likely that the food on offer is not a key factor in the decision to have a packed lunch or not. Similarly at Burton Green, BC attendance follows the same weekly trend, regardless of menu, demonstrating again the food on offer is not a key determinant of uptake. Rather, that the decision to attend the breakfast club, or have a school lunch, is made independently of this. It is, however, not clear if the same trends would be seen at Westfield if the cheese panini and jacket potato options were not readily available alongside the main options each day, as popularity for these items does rise and fall in relation to the main option. These foods provide a consistent, and widely liked 'back-up' choice, that may be used by pupils when they would prefer not to have the main option. Additionally, the BC at Burton Green provides a far more substantial and varied offering than is seen at many other schools, which could be a factor in its popularity.

iv. Pilot design

The organisation of lunch at Westfield School, where pupils can decide each day what to have, offers the benefit of maximising pupils' opportunity to try school lunches; those who begin a term with a packed lunch are not required to wait until the next opportunity to change, as is customary in most schools. There are however trade-offs to this design. School meal standards consider a full weeks' worth of food in their guidelines and regulations; for example, one or more different starchy foods must be served each day, with at least one wholegrain variety each week, and at least three different fruits and three different vegetables must be served each week (GOV.UK, 2024d). The idea being that although each day will provide different foods and nutrients, over the course of the week pupils will have had access to the variety of nutrients needed to best support their health. The pilot design at Westfield allows pupils to swap some school lunches for packed lunches, if they wish, potentially limiting their exposure to many nutrients. This could also be an outcome if the pupil repeatedly opted for of the cheese panini or jacket potato option, as opposed to the varied main meal. A further consequence of the lunches being organised in this way is the difficulty limiting food waste as the caterers must allow for any variability in orders that could occur each day.

Despite promising uptake at Burton Green, attending the pilot BC does require input from parents or guardians, outside of the usual school routine. Due to this, some pupils may have missed out on accessing this healthy breakfast. Offering breakfast during the school day, generally in the form of a 'grab-and-go' option that pupils can eat on their way into school, or during class is becoming increasingly popular, both as a replacement for the traditional before-school BC and as an addition to maximise access (Magic Breakfast, 2023b). Despite reaching more pupils, this design may not offer the additional benefits that the before-school BC at Burton Green provides; a soft start to the day, a variety of healthy breakfast foods and an opportunity to engage and build relationships with peers and teachers outside of the classroom (Greggs Foundation, 2024). Simultaneous running of these two designs may offer the most benefit to a school, however it would require considerably more resources.

v. Interim conclusions

Current policy surrounding school food limits school meal uptake by excluding numerous children from accessing free meals, and the subsequent benefits they provide (The Food Foundation, 2021). UFSM programmes, like these piloted in York offer wide-reaching and long-lasting benefits to primary-school aged pupils with few trade-offs at pupil-level. Whilst the design of the pilots at Westfield and Burton Green may not be directly applicable to all primary schools, the results demonstrate clearly that universal access to school meals does improve uptake. Further data will be gathered from the two schools as the third term of the pilot continues to provide a full year overview of impact, which will allow for a more comprehensive evaluation, that accounts for the seasonal variations that occur in school data.

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7. Appendices:

Appendix 1.

KS&FSM * BC regular Crosstabulation

		BC regular		Total	
		No	Yes		
Key stage and FSM eligibility	KS1 & not eligible	Count	19	18	37
		Expected Count	13.5	23.5	37.0
		Adjusted Residual	2.3	-2.3	
	KS1 & eligible	Count	6	8	14
		Expected Count	5.1	8.9	14.0
		Adjusted Residual	.5	-.5	
	KS2 & not eligible	Count	15	25	40
		Expected Count	14.5	25.5	40.0
		Adjusted Residual	.2	-.2	
KS2 & eligible	Count	4	26	30	
	Expected Count	10.9	19.1	30.0	
	Adjusted Residual	-3.0	3.0		
Total	Count	44	77	121	
	Expected Count	44.0	77.0	121.0	

Chi-Square Test.

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	10.745 ^a	3	.013
Likelihood Ratio	11.754	3	.008
Linear-by-Linear Association	9.332	1	.002
N of Valid Cases	121		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.09.