Universal Primary Free School Meals in London: Interim report

Evaluation report

December 2025

Mark Hardman, Sam Sims, Jake Anders, Claire Crawford, Francesca McCarthy, Kusha Anand, Claire Pillinger, Sally Riordan, and Stefanie Meliss

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The Education Endowment Foundation
5th Floor, Millbank Tower,
21–24 Millbank,
London,
SW1P 4QP

0207 802 1653

info@eefoundation.org.uk

www.educationendowmentfoundation.org.uk

Table of contents

About the evaluator

The evaluator is the University College of London (UCL). Founded in 1826 in the heart of London, UCL is London's leading multidisciplinary university, with more than 18,000 staff and 51,000 students from over 150 different countries. The research was conducted by staff from the Institute of Education, which specialises in postgraduate study and research in the field of education and is one of UCL's 11 constituent faculties.

Contact details:

Sam Sims
UCL Institute of Education,
Gower Street,
London,
WC1E 6BT

Email: s.sims@ucl.ac.uk

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Executive summary

The project

In February 2023, the Mayor of London, Sir Sadiq Khan, announced that the Greater London Authority (GLA) would fund free school meals (FSM) for all Key Stage 2 pupils in state primary schools, extending provision to those previously ineligible under the means test and achieving universal primary free school meals (UPFSM) in London (UPFSML). Initially limited to 2023/2024, the policy has since been extended for four more academic years. The introduction of this policy offered an opportunity to research the impact of FSM provision on different aspects of children's, families', and education providers' experiences, education and health outcomes, and well-being.

In England, FSM were previously provided for all state school pupils aged between Reception and Year 2, and for older children living in households that receive Universal Credit with an annual income of below £7,400, among other low-income eligibility criteria.[1] Concerns have been raised that this threshold for means-tested FSM may disqualify some children who are also living in financially struggling families.[2] The UPFSML policy was primarily introduced to support families during a time of high cost of living and improve children's 'readiness to learn', though its Theory of Change (outlined below) suggests broader benefits for educational outcomes, family well-being, local economies, and the environment.[3]

The GLA provided around £2.65 per meal in 2023/2024, distributed to schools via local authorities. Schools then procured and provided lunches in line with nutritional standards. The policy was expected to benefit around 270,000 pupils across 1,800 schools, saving parents around £440 per child in 2023/2024.[4] Pupils were not required to take up the meals and may bring packed lunches instead. Additional funding was provided by the GLA for Special Educational Needs and Disabilities (SEND) schools, Jewish schools, and schools where uptake was greater than 90%.

This interim report provides the findings from a quasi-experimental intention-to-treat (ITT) evaluation of the effects of the policy on educational achievement and school attendance in the academic year of 2023/2024. The trial uses a difference-in-difference evaluation design to exploit comparisons over time between 27 London boroughs that started to offer UPFSM in September 2023 with local authorities outside of London that do not offer UPFSM. A further triple-difference design explores an additional comparison over time with two London boroughs (Southwark and Tower Hamlets) that already had UPFSM prior to the 2023 London-wide introduction of the policy. The report also includes an extensive implementation and process evaluation (IPE) making use of case studies, parent and headteacher surveys, interviews, child focus groups, and lunchtime observations. Although the policy was introduced primarily as a cost-of-living measure, it also created an opportunity to understand how universal FSM provision might affect other outcomes such as attainment and well-being. The Education Endowment Foundation (EEF) commissioned this evaluation to help build that evidence base.

A second report, to be published in 2026, will add findings based on the second year of the UPFSML policy (2024/2025). This report will examine the impact on academic attainment after two years of the policy and include a range of additional secondary outcome measures derived from the United Kingdom Household Longitudinal Study (also known as Understanding Society),[5] including behaviour, concentration, well-being, financial distress, and supermarket food expenditure).

This EEF-funded evaluation is part of a suite of evaluations that will explore the impact of the UPFSML policy on different outcomes by various organisations. It is noted that policy changes may take time to embed and evolve, therefore, the findings of this interim report should be viewed in the context of a broader suite of current and subsequent evaluations. This report shared some data collection with the ICF and Impact on Urban Health in their More than a Meal project, which looked

[1] See: Apply for free school meals - GOV.UK
[2] See: Integrated Impact Assessment Universal Free School Meals | London City Hall
[3] See: www.london.gov.uk/dd2749-universal-free-school-meals-programme-2025-26?ac-281792=281777
[4] See: www.london.gov.uk/md3146-primary-school-universal-free-schools-meal-provision-2023-2024
[5] See: www.understandingsociety.ac.uk/

at children's, families', and schools' reflections on household finances, food security, and health and well-being, as well as collecting data on how to implement the policy effectively (Impact on Urban Health, 2024).

Table 1: Key conclusions

Key conclusions
Ten months after the introduction of the UPFSML policy, pupils in London boroughs that gained access to universal FSM made no measurable additional progress in their Key Stage 2 tests on average, compared to a group of similar pupils for whom access to FSM did not change. This result has a high-security rating.
The IPE showed that the introduction of UPFSML was perceived positively by families, particularly those who fall just above the threshold for means-tested support. Many families reported experiencing reduced financial stress, reduced stress in providing packed lunches, and increased well-being from knowing that their child has access to a hot meal each lunchtime.
The UPFSML policy was implemented with high fidelity, with almost all schools offering a choice of hot meals to all pupils. Lunchtime catering models mostly stayed the same, with a small minority of schools or caterers taking on additional staff or needing to upgrade kitchens. Despite the per pupil allowance exceeding the national means-tested FSM allowance, nearly half of schools surveyed indicated that the cost of delivering school meals exceeded the first year of allocated funding. Evidence suggests that financial pressures were compounded by rising food prices and challenges in changing contracting arrangements in the first year of the policy.
Evidence suggested that the uptake of UPFSM was consistently high across all groups, with around 90% participation among newly eligible children and strong engagement for children with dietary needs, religious meal requirements, and SEND. Children previously eligible for means-tested FSM also showed increased uptake. However, uptake was slightly lower among older year groups. The high uptake across all groups led to increased attention to lunchtimes by schools. Schools used the policy initiative as stimulus to improve lunchtime processes, spaces, and opportunities to promote pupil socialisation, including the learning around etiquette and responsibility. Evidence from case studies suggested that children eating together supported them trying new foods, interacting with their peers, and greater inclusion.
Pupil choice and agency emerged as a key factor in moderating the success of the UPFSML policy, playing a vital role in uptake, satisfaction, and nutritional benefit. Although reduced cost and family stress played a key role, the choices available to children was most commonly cited as the driving factor in family decisions around FSM, with older pupils being more likely to express dissatisfaction at choices available (correlating to lower uptake). Where children could choose meals at the point of service, they were more likely to be influenced by peers and lunchtime staff to try new foods, and more able to respond to their preferences on each given day. This also reduced family and administrative stress associated with pre-ordering meals.

EEF security rating

These findings have a high-security rating. This was a policy evaluation using a quasi-experimental design, which tested whether the UPFSML policy impacted outcomes under everyday conditions in a large number of schools.

Due to the use of administrative data and the quasi-experimental design, this trial has little missing data. In the primary analysis, schools in receipt of the policy were similar to those in the comparison group in terms of trends in Key Stage 2 attainment prior to introduction of the policy.

Additional findings

Attainment

Ten months after introduction of the policy, age 10–11 pupils in London boroughs that gained access to UPFSML in 2023/2024 made, on average, zero additional month's progress in their Key Stage 2 exams (average point score) compared to pupils with similar characteristics outside London. We focus on this comparison (with the rest of England) because the assumptions of our research design (parallel trends) appear to be better satisfied than in comparisons with other areas (two London boroughs that adopted UPFSML prior to introduction of the London-wide policy).The presence of similar (parallel) trends in attainment between treated and untreated groups prior to the implementation of the UPFSML policy suggests that the finding can be interpreted as the causal effect (or lack thereof) of the policy. Due to the large sample size used in this evaluation, there is very little statistical uncertainty around this estimate, with the full range of likely effects falling within the EEF's parameters for zero month's additional progress.

These results add to a fairly small existing literature evaluating how moving from means-tested to universal FSM affect pupil attainment, which generally shows a very small positive or zero effect, with an effect size equivalent to zero month's

progress. The IPE suggest that lack of any detectable effect on Key Stage 2 test scores may reflect reduced uptake among Year 6 pupils compared to other year groups, potentially limiting the policy's influence on those undertaking tests within our evaluation. Additionally, this evaluation focused on the policy in place for a single academic year, whereas SATs (Statutory Assessment Tests) assess cumulative learning across the entire primary phase, making short-term effects potentially difficult to detect. Further, the most pronounced benefits of the policy likely related to a relatively small group of families who were not previously eligible for means-tested FSM but struggled to afford lunches, limiting the scale of impact across the whole-target population. There is also some evidence that schools were already supporting struggling families, by absorbing lunch debt or providing food free of charge. Nevertheless, the findings align with prior research showing little or no overall attainment effect. A follow-up report will assess the impact on attainment two years after the policy's introduction, along with secondary outcomes that may influence future attainment.

We also separately estimated the effects on two important subgroups: i) those already eligible for FSM under the previous means-tested policy (Universal Infant Free School Meals); and ii) those newly eligible for FSM under the new UPFSML policy (relative to early adopter boroughs prior to the policy). The evaluation design used in this trial relies on the assumption of 'parallel trends'. This means that to attribute change (or lack of change) in outcomes to the introduction of the policy, we must be able to observe comparable (parallel) trends in Key Stage 2 attainment between the treated and untreated groups in the years preceding the introduction of the policy. However, the absence of parallel trends across our different model specifications for these subgroups means that our estimates cannot be interpreted as the causal effect of the UPFSML policy. More generally, we found no clear evidence of differing impact across a wide range of subgroups based on ethnicity or indicators of local area deprivation.

Attendance

Ten months after the introduction of the UPFSML policy, age 10–11 pupils in London boroughs that gained access to UPFSM in 2023/2024 had attendance slightly (0.03 standard deviations [SDs]) higher than pupils with similar characteristics outside London. However, as with the subgroup analyses on attainment detailed in the 'Attainment' section above, the absence of parallel trends between treated and untreated groups suggests that this estimate cannot be interpreted as the causal effect of the UPFSML policy. This evaluation is therefore, inconclusive as to the effects of the policy on attendance.

This result adds to a very small existing literature evaluating how moving from means-tested to universal FSM affects pupil attendance. Scwartz and Rothbart (2020) studied a similar policy in the United States (US) and found no effect on pupil attendance.

Implementation

Our IPE focused on uptake and perceptions of the policy initiative on children and their families, as well as on schools and school communities. Uptake of school meals was consistently high across multiple data sources, with management data showing an estimate of 90% participation of newly eligible children and 79% of parents reporting their child had a school meal every day. Uptake was slightly lower among older pupils, which corresponds with parent survey and case study data showing less satisfaction with choices among older children. The most commonly reported factor in families' decisions to take a school meal or not was the choice of food, followed by cost and ease of providing lunches.

Overall, the UPFSML policy was perceived positively by families. In particular, parents reported reductions in financial stress, with the policy reducing their mental load and time spent preparing packed lunches. Reductions in parents' financial stress and difficulties in providing nutritious lunches were most pronounced for families just above the threshold of means-tested access to FSM.

In our findings, around schools and school communities, we report from the school survey that nearly all schools (97%) were able to offer meals to all Key Stage 2 pupils from September 2023. Most schools had sufficient kitchen capacity and offered more than one hot meal option. However, some schools faced challenges with dining space and equipment, prompting changes such as staggered lunchtimes and 'grab and go' models. These adaptations helped accommodate increased demand and improve the dining experience.

Our findings suggest that the UPFSML policy created an additional financial burden for some schools (including 44% of schools responding to our survey), as their costs exceeded funding levels in the first year of the policy. Some schools struggled to recruit and retain catering staff, and others lacked space or equipment to scale-up provision. Despite these challenges, most schools adapted effectively to the policy initiative. An additional concern from school leaders was a decline in Pupil Premium registration, and the related loss of indicators like lunch debt, making it harder to identify families in need. However, the Department for Education School Census data[6] suggest that this concern was not reflected in the actual level of registration for Pupil Premium in London, between 2022/2023 and 2023/2024.

Alongside this research project funded by the EEF, ICF and Impact on Urban Health completed the More than a Meal project, with both projects sharing some data collection (Impact on Urban Health, 2024). Both highlight the wide-ranging benefits of UPFSML, particularly for families just above the threshold for means-tested government support, and that the policy significantly reduced financial stress and stress around providing packed lunches. Both studies also emphasise the importance of children's agency and choice in meal selection, and improvements in social cohesion and well-being. The differing methodologies and foci are important to note, in gaining a fuller picture of the effects of the policy initiative. The Impact on Urban Health (2024) report focuses more on the lived experiences of families and children, particularly those on Universal Credit, and places greater emphasis on the emotional and relational aspects of food, such as family bonding and children's confidence. They achieved this by purposeful sampling, strategies to reach the families who were most likely to benefit from the policy, and involved ethnographic studies. In contrast, our IPE aimed at a system-level analysis of implementation processes across London schools. We sought the largest possible samples for surveys and case studies selected to represent a diversity of schools. In this sense, we present a broader view of the impacts of the policy initiative across families and schools in London.

Cost

The GLA allocated £130m to cover the costs of the policy in 2023/2024.[7] The GLA estimates there to be 270,000 otherwise-ineligible primary pupils in state-funded schools in London. Dividing this funding over the estimated number of pupils gives a cost per pupil per year of £481.48 for 2023/2024.

Costs to schools and caterers vary around this value, and are discussed further in this report, under the 'Cost evaluation results' section.

Impact

Table 2: Summary of impact on Key Stage 2 average points score

Outcome / group	Effect size (95% confidence interval)	Estimated months' progress	EEF security rating	No. of pupils	EEF cost rating
Key Stage 2 average point score All pupils National difference-in-difference	0.01 (<-0.01, 0.02)	0	🔒🔒🔒🔒🔓	4,079,537	£ £ £ £ £

[6] Accessed through: https://explore-education-statistics.service.gov.uk/
[7] See: www.london.gov.uk/md3146-primary-school-universal-free-schools-meal-provision-2023-2024

Introduction

Background

England has a long history of providing means-tested free school meals (FSM; lunches). Local authorities in England have been offering means-tested FSM to pupils since 1906 (Lalli *et al.,* 2023) and have been legally obliged to provide FSM to disadvantaged pupils since the Second World War (Finch, 2019).

In the last decade, England has begun to move beyond means testing towards a more universal approach. Since 2014, all pupils in Reception and Key Stage 1 (ages four to seven) in England have been eligible for FSM, funded by the national government. Schools are legally obliged to provide these meals to pupils, and where the food must meet the official school food standards. This policy is known as Universal Infant Free School Meals (UIFSM) and funded by the national government.

By contrast, pupils in Key Stage 2 and above (ages seven and older) in England are generally only eligible for FSM if they, or their parents, meet one of several criteria indicating low household income. This is also funded by the national government.

There are, however, a few exceptions to means testing at Key Stage 2. Several London boroughs have independently funded universal primary free school meals (UPFSM) for pupils in Key Stage 2. When combined with the nationwide UIFSM policy, this means that all primary school pupils in these boroughs had access to FSM. The five boroughs are: Newham (Key Stage 2 FSM since 2009); Islington (since 2010); Southwark (since 2013); Tower Hamlets (since 2014); and Westminster (since January 2023). No local authorities in England, outside London, currently provide UPFSM.

In early 2021, the general price level in England began to rise sharply, with annual inflation reaching 10% by the end of 2022 (Harari *et al.,* 2023). This has sharply reduced household real incomes, particularly among lower income households, precipitating a cost-of-living crisis (Harari *et al.,* 2023). On 20 February 2023, the Mayor of London, Sir Sadiq Khan, announced that all primary pupils in London would receive FSM for the duration of the 2023/2024 academic year. The UPFSM in London (UPFSML) policy provided £2.65 per meal, which was slightly higher than the funding for the UIFSM policy (£2.53 per meal). On 9 January 2024, the Mayor of London, Sir Sadiq Khan announced that the policy would be extended to cover the 2024/2025 school year and the price per meal raised to £3.00. The main objectives of this evaluation are to understand the effects of the move from means-tested to universal FSM provision on pupil outcomes.

The study is aligned with an evidence-based Theory of Change (discussed below), which suggests three broad potential benefits of such universal FSM policies (Page and Bremner, 2023). First, the provision of FSM potentially improves pupil attainment at school by supporting children to attend school and concentrate in lessons. Several evaluations have found support for a positive causal effect of FSM (though not necessarily a move to universal FSM) on academic attainment (Abouk and Adams, 2022; Corcoran *et al.,* 2016; Frisvold, 2015; Leos-Urbel *et al.,* 2013; Crawford *et al.,* 2016; Imberman and Kugler, 2014; Ruffini, 2022; Schwartz and Rothbart, 2020). Second, the provision of FSM potentially improves household financial circumstances and food security. The United Kingdom (UK) studies suggest that receipt of FSM saves families between £8.60 and £10.00 per week, per child (Sellen *et al.,* 2018; Holford and Rabe, 2022). Third, the provision of FSM potentially contributes to improved health, through improving pupils' diet. Evaluations have found empirical support for the effect of FSM reforms on health (Holford and Rabe, 2022; Schanzenbach and Zaki, 2014), at least when the meals offered are nutritionally balanced (Belot and James, 2011; Schanzenbach, 2009).

The study adds to the small existing literature (Kitchen *et al.,* 2013; Holford and Rabe, 2025; Ruffini, 2022; Schwartz and Rothbart, 2020) on the effect of moving from means-tested to universal free school lunches. Kitchen *et al.* (2013) found a positive effect on pupil test scores in some pilot areas after two years of the policy being in place, but no effect in other areas. Holford and Rabe (2025) found effects on reading but not in maths for pupils with at least one year of exposure to the policy. However, there was no clear pattern of effects increasing with greater length of exposure to the policy. Ruffini (2022) found no overall effect on test scores over one or two years of exposure. Schwartz and Rothbart (2020) however, found positive effects on test scores after one year. In a recent meta-analysis of this literature, Ayllón and Lado (2025) found a near zero effect of universal FSM on test scores.

A primary contribution of the study is therefore, to provide new evidence for whom the UPFSML policy is effective, which can in turn help inform future policy around eligibility for FSM. We also present the results of an extensive implementation and process evaluation (IPE), which provides complementary evidence in testing the underlying Theory of Change for the policy.

The policy

As a large-scale policy initiative, the introduction of entitlement for UPFSM for all Key Stage 2 pupils in London was a complex undertaking, which does not neatly fit the definition of an 'intervention'. Full details of the relevant grant agreement are available online from: www.london.gov.uk, under the title 'MD3146 Primary School Universal Free Schools Meal Provision 2023-2024'. The extension of the programme for 2024/2025 is included under 'DD2703 Universal Free School Meals Programme 2024-25'. Here, we draw on the grant agreement documentation to briefly outline key aspects of the initiative, using the Template for Intervention Description and Replication (TIDieR) checklist (Hoffmann *et al.,* 2014).

Name

Universal Primary Free School Meals in London (UPFSML)

Why (theory/rationale)

In early 2021, the general price level in England began to rise sharply, with annual inflation reaching 10% by the end of 2022 (Harari *et al.,* 2023). This has sharply reduced household real incomes, particularly among lower income households, precipitating a cost-of-living crisis (Harari *et al.,* 2023). On 20 February 2023, the Mayor of London, Sir Sadiq Khan, announced that all primary pupils in London will receive FSM for the duration of the 2023/2024 academic year. On 9 January 2024, the Mayor of London, Sir Sadiq Khan announced that the policy would be extended to cover the 2024/2025 academic year, and a policy commitment was made to continue this for the length of the mayoral term.[8] The policy launched as a one-year intervention to support families with the cost of living and to improve the educational, health, and well-being outcomes for children.

Who (recipients)

This funding will help up to 270,000 primary school children in the capital's state-funded schools in Years 3 to 6 who are not currently eligible for FSM, although take up is not compulsory. State-funded schools include academies, special schools, and alternative provision.[9]

What (materials)

The Greater London Authority (GLA) provided approximately £2.65 per meal in the 2023/2024 school year, and £3.00 per meal in 2024/2025.[10] The GLA estimate that this UPFSML policy was worth approximately £440 per child in 2023/2024.[11] This will be used by schools to fulfil the terms of the grant agreement. Additional funding is provided by the GLA for Special Educational Needs and Disabilities (SEND) schools, Jewish schools, and schools where uptake is greater than 90%.

The five London boroughs (Islington, Newham, Southwark, Tower Hamlets, Westminster) that were already offering UPFSM still received the money but were required to spend it on other measures to address the cost-of-living crisis. Southwark and Tower Hamlets planned to spend the money primarily on Key Stages 3 and 4 (ages 11 to 16) FSM instead; while Islington, Newham, and Westminster planned to spend the money, in part, on topping up the value/budget of FSM for Key Stage 2 pupils.

[8] See: www.london.gov.uk/who-we-are/what-mayor-does/priorities-london/free-school-meals
[9] See: www.london.gov.uk/media-centre/mayors-press-release/mayors-free-school-meals-set-to-help-hundreds-of-thousands-of-primary-schoolchildren-as-alarming-new-figures-show-extent-of-the-cost-of-living-crisis
[10] Accessed through: https://explore-education-statistics.service.gov.uk/
[11] Accessed through: https://explore-education-statistics.service.gov.uk/

A contingency fund (of £5m) was established for any extraordinary costs associated with implementation. This included specific access requirements for children with SEND, as well as pupils who may have specific dietary requirements in connection with their religion or belief.

What (procedures) and Who (provider)

The Mayor of London, Sir Sadiq Khan transferred funding for the meals to the London boroughs using a citywide formula applied to the prior year's school census data. The boroughs then transferred the money to schools. Schools determined how to fulfil the requirements of the policy, although there was some co-ordination from boroughs, Multi-Academy Trusts (MATs), and other school groupings.

How (format)

Schools determined how meals were provided, in conformity to existing school meal food standards set by the national government. Schools already utilised a range of external providers as well as in-house provision, and this continued.

Where (location)

All state-funded schools in London (including special schools and alternative provision).

When and how much (dosage)

It was intended that each pupil was offered a lunchtime meal for each day that the school was open. A detailed description of how we measured this is given in Table 3 below. Within the evaluation, we considered the time of day at which lunch was given to pupils to evaluate the feasibility of 'lunchtime' meals for all pupils.

Tailoring (adaptation)

We considered the intervention to be focused upon the supply of a nutritious meal (as determined by the national food standards)[12] to each pupil, each day. However, we anticipated that different schools would adapt the ways in which they supply meals to pupils, as well as some variation in the nutritional quality of these meals.

Theory of Change

The charity Impact on Urban Health, working with the London Mayor's office and the GLA commissioned Bremner & Co to develop a Theory of Change. Bremner & Co held a series of discussions with stakeholders to identify evidence and priorities around the policy change, which then informed the updating of a 'Systematic Review of the Literature Examining Universal Free School Meals in the United Kingdom and Internationally' (Cohen and McLoughlin, 2023, based on Cohen *et al.,* 2021). The Theory of Change (Page and Bremner, 2023) was then developed by drawing on the systematic review, the wider literature, and the views and experiences of stakeholders across the school food system. Incorporating the views and experiences of stakeholders was considered an important part of the Theory of Change development because the UK school food system is under-researched and some of the causal pathways hypothesised are not well documented.

The Theory of Change focuses on key areas of the policy initiative being evaluated:

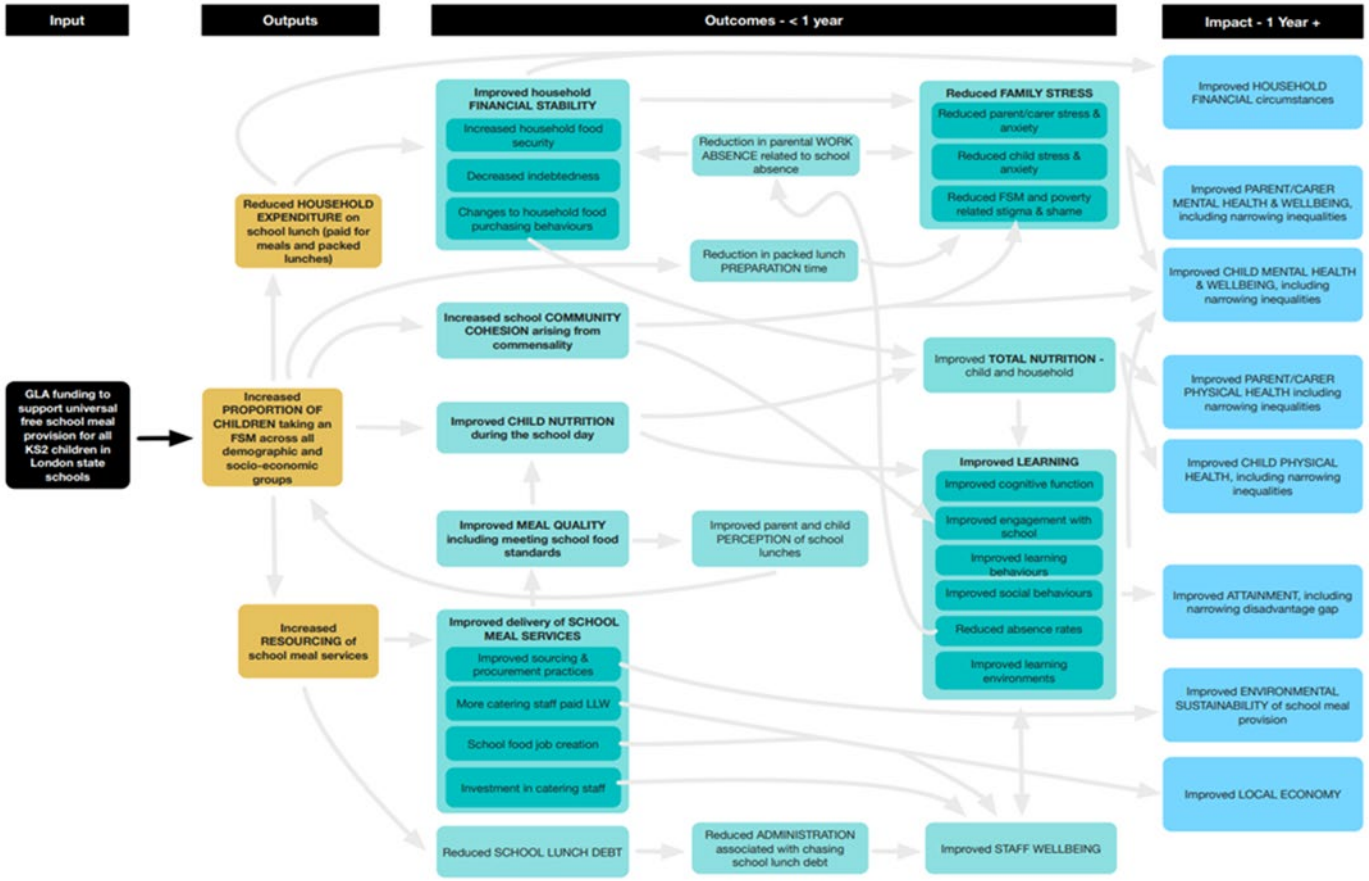
- household financial circumstances and food security;
- mental health and well-being;
- physical health;

[12] Nutrition standards for school meals are set nationally, see: www.gov.uk/school-meals-food-standards.

- learning and attainment;
- local economy; and
- environmental sustainability of school meals.

The overall Theory of Change, including pathways to change in each of these key areas, is included in Figure 1 below.

Figure 1: Theory of Change



Source: With permission from Bremner & Co.

The evidence base underpinning the UPFSM Theory of Change varies in strength across its components (Page and Bremner, 2023). There is good evidence internationally (including in the UK) that UPFSM policies significantly increase school meal participation, especially among children not previously eligible (Cohen *et al.,* 2021; Kitchen *et al.,* 2013; MacLardie *et al.,* 2008; Holford, 2015). This uptake is a key mediator for downstream effects. There is also good evidence that UPFSM improves diet quality and food security, particularly when robust nutrition standards are in place (Parnham *et al.,* 2022; Cohen *et al.,* 2018; Dalma *et al.,* 2020). However, UK-specific studies with low risk of bias are limited, and findings are more mixed. Qualitative evidence supports reductions in stigma and household stress, especially for low-income families (Jessiman *et al.,* 2023; Shinwell and Defeyter, 2021), suggesting meaningful psychosocial benefits.

For outcomes like attendance, academic performance, body mass index (BMI), and school finances, the evidence is moderate. Studies suggest UPFSM may improve attendance and attainment, particularly among food-insecure children, but UK data is sparse (Gordanier *et al.,* 2020; Bartfeld *et al.,* 2020). The evidence drawn on in the Theory of Change suggests a relationship between diet and brain development, protection, and cognition (Naveed *et al.,* 2020), as well as executive function (Cohen *et al.,* 2016), suggesting a potential impact on attainment 'in the long term' (Page and Bremner, 2023, p. 3). BMI outcomes show no adverse effects and some potential for reduced overweight risk (Andreyeva and Sun, 2021; Holford and Rabe, 2022). Financially, UPFSM appears sustainable due to economies of scale and increased reimbursements, though UK-specific cost analyses are limited (MacLardie *et al.,* 2008; Long *et al.,* 2021). Moderators such as socio-economic

status, implementation quality, and school infrastructure play a significant role in shaping outcomes, while mediators like stigma reduction, improved nutrition, and increased engagement with school, help explain the pathways to impact.

In July 2023, the evaluation team at the University College of London (UCL) met with Bremner & Co and representatives of the GLA (as well as the Education Endowment Foundation [EEF]) to interrogate the Theory of Change together, including consideration of facilitators, moderators, and mediators of impact. The evaluation plan was informed by this discussion, as well as ongoing contact with other stakeholders. The intention of this study is to evaluate the Theory of Change, being attentive to counterfactuals, moderators, mediators, and unforeseen issues around both implementation and pathways to outcomes.

Moderators and mediators

Discussion around the Theory of Change identified potential moderators and mediators within the first year of the policy, outlined in Table 3 below. These inform our research design, which also seeks to identify other implementation factors that we have not identified here.

Table 3: Potential moderators and mediators

Aspect(s) of the Theory of Change	Moderator / mediator
• Increased proportion of children taking up FSM across all demographic and socio-economic groups	• Moderated by family choices, and any differences among groups. We anticipate groups being defined by FSM eligibility, previous FSM eligibility, school Ofsted (Office for Standards in Education, Children's Services and Skills) rating, borough, pupil ethnicity, and potentially Income Deprivation Affecting Children Index (IDACI) groupings. However, we will consider what is meaningful relative to the data gathered
• Increased resourcing of school meal services	• Potentially moderated by any reduction in pupils being identified as eligible for Pupil Premium
• Improved child nutrition during the day	• Moderated by child-level choices • Mediated by the nutritional quality of meals
• Increased school community cohesion	• Mediated by removal of any labels (such as Pupil Premium) in relation to meals • Moderated by any increased difficulties around lunchtime logistics or behaviour
• Changes to household food purchasing behaviours and increased household food security	• Moderated by family/household choices
• Improved delivery of school meal services • Reduced school lunch debt	• Mediated by availability of suppliers and resources • Potentially moderated by economic climate
• Reduced administration associated with chasing school lunch debt • Improved staff well-being	• Potentially moderated by additional administration around lunch choices
• Reduced family stress	• Mediated by family choice to no longer prepare packed lunches • Potentially moderated by additional administration around lunch choices
• Improved total nutrition—child and household	• Moderated by family/household choices • Potential counterfactual of reduced spending on evening meals
• Improved learning	• Moderated by child-level choices • Mediated by nutritional differences in dietary changes • Moderated by changes in school participation and engagement with the school • Moderated by changes in community cohesion and learning environments

Evaluation objectives

Impact evaluation

The primary research question that this impact evaluation set out to address is:

1. What is the effect of being offered UPFSML on pupil achievement in Key Stage 2 (age 11/Year 6) exams?

This analysis included all pupils in Year 6 in Summer Term 2024.

The secondary research questions that this impact evaluation set out to answer are:

2. What is the effect of being offered UPFSML on Key Stage 2 pupils' school attendance?
3. What is the effect of being offered UPFSML on Key Stage 2 pupils' behaviour and concentration?
4. What is the effect of being offered UPFSML on Key Stage 2 pupils' well-being?
5. What is the effect of being offered UPFSML on Key Stage 2 pupils' household financial distress?
6. What is the effect of being offered UPFSML on Key Stage 2 pupils' household's supermarket expenditure?

These analyses include pupils in Key Stage 2 (Years 3 to 6) in the 2023/2024 academic year.

UPFSML represents a move from means-tested to universal FSM in Key Stage 2. This affords opportunities to investigate not just if UPFSML works, but for whom. This is valuable for informing policy decisions about which groups should be eligible for FSM in the future. We therefore, plan to explore this question extensively. The National Pupil Database (NPD) includes information on each child's ethnicity as well as their IDACI—a measure of the deprivation level of their local neighbourhood—which we will use to explore heterogenous effects of UPFSML on achievement and attendance. We will also compare the effects for pupils in newly treated areas who were already eligible for FSM and those in newly treated areas who were not already eligible. An additional secondary research question that this impact evaluation answers is therefore:

7. How does the effect on pupil achievement and school attendance vary by IDACI, major ethnic group, and FSM eligibility (FSM6) prior to the reform?

This report presents analysis addressing research questions 1, 2, and 7 in the first year of the policy using administrative data from the NPD. The final evaluation report will incorporate data from the second year of the policy and will also address all other research questions, using alternative outcome measures, using data from the UK Household Longitudinal Study, also known as Understanding Society.[13]

IPE

The IPE addressed the following research questions in the first year of policy implementation, exploring the UPFSML programme from the perspective of Key Stage 2 pupils and families, as well as from the perspective of schools.

Regarding pupils and their families:

1. What has been the change in uptake of Key Stage 2 school meals as a result of UPFSML?
    a. By pupil characteristics (e.g. prior and current FSM eligibility, ethnicity, dietary requirements).
    b. By school characteristics (e.g. borough, inner/outer London, Ofsted rating, IDACI index).

2. What factors are involved in family and Key Stage 2 children's decisions to take up FSM (including suitability of food and dining environment, stigma)?

3. What are the influences of UPFSML as perceived by parents, carers, and pupils?
    a. On household financial stability (including workplace absence).
    b. On family stress, mental health, and well-being (including stigma and self-perception of FSM).
    c. On child and family nutrition (including school meal quality, family eating habits).

4. Are there any other impacts or unintended consequences of UPFSML on families and pupils?

[13] See: www.understandingsociety.ac.uk/

Regarding schools and school communities:

5. Has the school been able to offer school meals to all children?
    a. Hot meals.
    b. Appropriate portion size.
    c. Choices available.
    d. Dietary requirements catered for (including kosher, halal, vegan, vegetarian, coeliac, and lactose intolerance).
    e. Appropriate and sufficient time to eat in the day.

6. What facilitators and barriers have there been to delivering UPFSML?
    a. Regarding staffing.
    b. Regarding scaling kitchen and dining facilities.
    c. Regarding finances.
    d. Other facilitators/challenges (including GLA communications).

7. What influence has UPFSML had on the following?
    a. School community cohesion.
    b. School meal quality.
    c. Well-being of administrators.
    d. Well-being of teachers.
    e. Learning environments (cognitive function, engagement, behaviours, readiness, and absence).

8. What are the perceived potential impacts of UPFSML on:
    a. Environmental sustainability (waste).
    b. Local economy (use of external contractors).

9. Are there any other impacts or unintended consequences of UPFSML on schools and school communities (including impact on Pupil Premium enrolment)?

Ethics and evaluation registration

Ethical approval for both the impact evaluation and the IPE were sought and obtained from the UCL Institute of Education.

The impact evaluation is entirely observational (quasi-experimental) in nature. The policy change that we are studying was introduced by the local government. For the purposes of the impact evaluation, we therefore, do not need pupils' consent.

The impact evaluation did not collect any personal data from pupils and, by extension, did not link to any information about pupils in other datasets. For the purposes of the impact evaluation, we therefore, do not need pupils 'consent to collect or link their personal information.

The IPE collected personal data from parents/carers, pupils, and teachers. This included special category data of pupils (dietary requirements and ethnicity). We informed participants of how and why we are collecting personal data, provided them with opportunities to withdraw, ensured they participated only if they gave informed consent, stored their data securely in the UCL Data Safe Haven, and ensured that no individuals or schools were identified or identifiable in reports or other study outputs. In this approach, we adhered to the professional ethical code of practice of the British Educational Research Association (BERA, 2018).

The research questions, research design, estimating equations, and a range of other information, were pre-registered in a study plan (Sims, *et al.,* 2024a).

Data protection

Personal data for this trial was processed under the public task provision of the General Data Protection Regulation (GDPR) (GDPR, 2016). This is in line with advice from UCL that we should always rely on 'public task' when conducting this sort of research.

UCL was the data controller, since UCL determined the purposes for which the data will be used. At the point that any impact evaluation data is added to the EEF archive after the project, the EEF will become the data controller, since at that point they will determine the purposes for which the data will be used at that point onwards. Where UCL are collaborating with evaluation partners for the IPE, the partners were joint data controllers and a data sharing agreement was put in place.

For the purposes of the impact evaluation, we accessed data that was pseudonymised at source by the data owner. We asked the Department for Education (DfE) to identify all individuals with older siblings on our behalf (using postcode and surname) prior to sending us the data. We applied best practice statistical disclosure measures to further minimise this risk.

For the purposes of the impact evaluation, we accessed special category data on pupils' ethnic origin. We needed to access this data in order to understand whether the effects of the policy vary by ethnic group. This is important to understand any impact of the policy (positive or negative) on inequalities. Here, we relied on archiving and research and statistics (with a basis in law) under the GDPR (GDPR, 2016). Our research is scientific (uses the scientific method), is in the public interest (will inform important policy decisions), and is proportionate to this task (we are not accessing any unnecessary variables).

For the purposes of the IPE, we provided all participants with a data protection statement before we asked for their consent to take part in the study. This statement served as a 'local' statement relevant to the evaluation and the role the participant was playing in the study (school staff, parent/carer, pupil). It operated alongside UCL's general privacy notice. The data protection statement outlined how UCL was working with partner organisations to process data, how the data is being used, how participants could withdraw consent, what personal data was collected, and how it was processed and stored. It contained contact information for the study team and the UCL data protection officer. It explained that the legal basis for data processing was a 'public task'.

The IPE collected personal data during the study, including special category data (dietary requirements and ethnicity). All personal and special category data was stored in the UCL Data Safe Haven prior to anonymisation and pseudonymisation. This is a protected environment for the handling and processing of personal data.

Project team

- **Sam Sims (UCL):** Responsible for overall leadership of the project, including development of the study plan, ethical approval, and reporting of results. Responsible also for overall leadership of the impact evaluation.
- **Jake Anders (UCL):** Responsible for conducting all aspects of the impact evaluation using the NPD data.
- **Claire Crawford (UCL):** Responsible for advising on and contributing to all aspects of the impact evaluation.
- **Mark Hardman (UCL):** Led the IPE, with responsibilities for co-ordinating qualitative methods, data collection, and analysis, reporting and collaboration with evaluation partners, and external evaluation teams.
- **Sally Riordan (UCL):** Played a key role in the IPE, including in survey design and co-ordination with evaluation partners and external evaluation teams.
- **Claire Pillinger (UCL):** Contributed to the IPE through conducting and co-ordinating case study visits, managing data, and analysis.

- **Francesca McCarthy (UCL):** Led on case study school and survey recruitment, conducting case study visits, and led on case study data analysis.

- **Kusha Anand (UCL):** Led the parent interview design, data collection, and analysis, and contributed to the parent survey design.

- **Stefanie Meliss:** Contributed quantitative survey analysis to the IPE.

This is an observational (quasi-experimental) study. Neither the EEF nor the UCL are responsible for the design or implementation of the UPFSML policy.

Methods

Impact evaluation design

Table 4: Design for the NPD analysis

Evaluation design		Difference-in-difference Triple-difference
Unit of analysis		We will observe pupil-level data but consider the treatment to be allocated at school level
No. of units included in analysis (intervention, comparison)		Schools: 17,446 (newly treated in London=1,554; already treated in London=146; outside London=15,746) Pupils: 4,121,079 (newly treated in London=524,269, already treated in London=41,542; outside London=3,555,268)
Primary outcome	Variable	Pupil achievement in the 2023/2024 academic year. This corresponds to the 'improved learning' variable in the Theory of Change
	Measure (instrument, scale, source)	Key Stage 2 average point score (KS2_APS), 3–39, NPD
Secondary outcome(s)	Variable(s)	Attendance in the 2023/2024 academic year. This corresponds to the 'reduced absence rates' variable in the Theory of Change. We will treat absences the same, regardless of whether they are authorised or unauthorised
	Measure(s) (instrument, scale, source)	Attendance: pupil attendance in 2023/2024 academic year, 0–100%, NPD
Baseline for primary outcome	Variable	The same variable but in the following years: 2015/2016; 2016/2017; 2017/2018; 2018/2019; and 2022/2023. Note that we will not use 2019/2020 or 2020/2021 because of missing data and/or incomparability due to COVID
	Measure (instrument, scale, source)	Key Stage 2 average point score (KS2_APS), 3–39, NPD
Baseline for secondary outcome(s)	Variable	The same variable but in the following years: 2015/2016; 2016/2017; 2017/2018; 2018/2019; and 2022/2023. Note that we will not use 2019/2020 or 2020/2021 because of missing data and/or incomparability due to COVID
	Measure (instrument, scale, source)	Attendance: pupil attendance, 0–100%, NPD

Our analysis of the NPD data employs both a difference-in-difference design and a triple-difference design. The difference-in-difference looked at the change in outcome in the 27 newly treated London boroughs in the year the policy was introduced (first difference), over and above any changes in outcomes experienced in local authorities outside London (second difference). The triple-difference added an additional comparison group, meaning that the impact estimate is to be over and above any changes in outcomes experienced in Southwark and Tower Hamlets. These are the two London boroughs that already had UPFSM and are spending the additional money from the GLA on Key Stages 3 and 4 pupils.

Looking at the change in outcomes over time in the 27 London boroughs (first difference) eliminates time-invariant London-specific confounds, such as higher teacher pay in the capital. Looking at this first difference over and above changes in outcomes experienced in local authorities outside London (second difference) eliminates time-varying national confounds, such as increases in food costs. Also looking at the first difference over and above the changes experienced in Southwark and Tower Hamlets (third difference) eliminates time-varying London-specific confounds, such as changes in the cost of

public transport within the capital. As with all quasi-experimental designs, we cannot guarantee that this will eliminate all confounds. For example, time-varying borough-specific unobserved confounds could still be an issue.

Year 6 pupils in Southwark have been eligible for FSM throughout primary school since 2016. Year 6 pupils in Tower Hamlets have been eligible for FSM throughout primary school since 2017. This means that pupils taking Key Stage 2 prior to 2017/2018 were not eligible for FSM in their first years at school (in Reception and/or Year 1). If eligibility for FSM has a cumulative effect—in other words, more years of eligibility has a more positive effect on attainment—then pupils in these earlier cohorts may not provide a valid comparison group. We therefore, ran sensitivity tests for our triple-difference analysis excluding all years before 2017/2018, to rule out any such 'dose-response' effects in Southwark and Tower Hamlets.

Deviations from the study plan

In **the study plan** (Sims, *et al.,* 2024a), the principal investigator pre-registered our triple-difference estimating equation using the conventional specification (Olden and Moen, 2022). This conventional specification is built out of three dummy variables: one capturing the period in which the policy is on; and two capturing different eligibility criteria. The conventional specification (see the original study plan; Sims, *et al.,* 2024b) includes the three dummy variables, the three possible two-way interactions between these dummy variables, and the one three-way interaction between these dummy variables. In this specification, the three-way interaction picks out the unit-by-period observations that receive the treatment based on the intersection of being in the period in which the policy was on and being a unit which is simultaneously a member of both of the groups that define policy eligibility. The unit-by-period observations for which all three of these dummy variables equal one, and the three-way interaction is therefore, also equal to one, are those in which we would expect the outcomes as-if treated would be found.

When fitting this model, it became clear that this way of specifying the model was not appropriate for our setting. Recall that our intention was to look at the change over time in newly eligible London boroughs over and above the change over time outside London and over and above the change over time in the already eligible London boroughs. Since each school is only in at most one of these three areas, an interaction involving multiple area dummies contains no units and therefore, cannot capture the outcomes as-if treated.

Instead, we defined one dummy to capture newly treated London boroughs ('Treat') and one dummy to capture all London boroughs ('London'). Notice that the latter dummy contains both the newly treated London boroughs and the already treated London boroughs. In contrast to our original specification, the group identified by the former dummy is a subset of the group identified by the second dummy. We then included both of these dummies alongside two two-way interactions in our model (see the 'Analysis' section below for the full specification). The first two-way interaction is between London and being in the policy-on period. The second interaction is between 'Treat' and being in the policy-on period. The coefficient on this second two-way interaction picks out the outcomes as-if treated. We still refer to this new specification as a triple-difference on the basis that it captures the change over time in newly eligible London boroughs over and above the change over time outside London and over and above the change over time in the already eligible London boroughs.

Our initial plans also included multiple imputation to deal with any missing data arising due to missing covariates. However, given the scale of the data involved (already gigabytes in size before additional, imputed datasets are created), we realised that it would not be feasible to carry this out in the computing environment available (Office for National Statistics [ONS] Secure Research Service [SRS]). Moreover, observations were dropped from our primary analysis model due to missing data on any model covariate in fewer than 10% of cases, meaning we think this is unlikely to cause substantial bias to our findings.

Our pre-registered plan for analysing our secondary outcome (attendance) included all Key Stage 2 pupils. However, the data we received only included age 11 pupils. To avoid delays to project reporting, we progressed with the available data. Our statistical tests remain very well powered, even when using this smaller group of pupils.

Our pre-registered plan for analysing the attendance outcome was to compare the newly treated and rest of London areas (in the difference-in-difference) and then to add an extra comparison group based on the already treated London boroughs (in the triple-difference). Once we received the data, it became clear that the parallel trends assumptions required for these

research designs did not hold true (i.e. the placebo tests were failed) in the pre-treatment period. However, the analogous parallel trends assumptions did hold in the pre-treatment period for the comparison between the newly treated areas and the already treated areas within London. We therefore, proceed with this within-London difference-in-difference design for all subsequent analysis of our attendance outcome. All of our parallel trend analyses are reported below.

Participant selection

The selection mechanism for UPFSML is transparent. Pupils gained the offer of a free school lunch if they are in Key Stage 2 in a school within Greater London during the 2023/2024 academic year and were not already eligible for means-tested FSM. In contrast to means-tested FSM, there are no registration requirements.

Pupils were not obliged to take up the FSM and we did not observe which pupils took it up. All our evaluations are conducted on an 'intention-to-treat (ITT)' basis, in which we are interested in quantifying the impact of being offered FSM.

Our difference-in-difference and triple-difference research designs depend for their validity on the parallel trend's assumption. That is that, conditional on covariates, the change in outcomes observed in the comparison group in the treatment period is the change that would have been observed in the treatment group in the treatment period in the absence of the UPFSML policy. We can test this indirectly by looking at trends in our outcome measures in the treatment and comparison groups in the pre-treatment period. If we do not observe parallel trends in the pre-treatment period, then this casts doubt on whether there would have been parallel trends in the treatment period, in the absence of the UPFSML policy.

Holford and Rabe (2025) used difference-in-difference methods comparing outcomes in four London boroughs that introduced UPFSM early (Newham [2010], Islington [2011], Southwark [2012], and Tower Hamlets [2014]) to schools in the rest of the country. They found parallel trends in tests scores (academic achievement) in the three years prior to the staggered rollout, as well as parallel trends in attendance in the two years prior to the staggered rollout. Since Holford and Rabe (2025) found parallel trends when comparing with the rest of England, we also decided to use the rest of England (outside London) as our comparison group in our difference-in-difference.

Holford and Rabe (2025) also compared the four early-UPFSM London boroughs to schools in the rest of London. They found parallel trends in tests scores in the three years prior to the staggered rollout, as well as parallel trends in attendance in the two years prior to the staggered rollout. We therefore, planned to use previously treated London boroughs as an additional comparison group in our triple-difference specification. More precisely, we planned to use Southwark and Tower Hamlets (not Islington, Newham, nor Westminster, which introduced UPFSM after the Holford and Rabe [2025] study period) in this additional comparison group. This is because the former two boroughs spent the UPFSML money on Key Stage 3 and 4 children, whereas the latter three boroughs planned to spend it on Key Stage 2 children, which could have biased our estimates.[14]

We will use the pre-treatment years 2015/2016, 2016/2017, 2017/2018, 2018/2019, and 2022/2023. We will not use 2019/2020 or 2021/2022 because there is no exam data due to COVID. We do not go back further than 2015/2016 because reforms to Key Stage 2 exams in that year make it harder to validly compare the outcomes across years. In this report, we report the results based on one post-treatment period (2023/2024) because it is the only data available at the time of writing. However, we will look at outcomes in 2024/2025 in future work.

Sample size

At the study plan stage, we estimated that there would be 1,506 primary schools in the newly treated London boroughs, containing 318,595 pupils, of which 82,528 would be in Year 6. In addition, we estimated that there would be 14,987 primary

[14] For Southwark see: https://services.southwark.gov.uk/news/2023/sep/a-decade-of-free-school-meals-in-southwark-healthier-children-with-better-results-for-schools-and-families; for Tower Hamlets see: www.towerhamlets.gov.uk/News_events/2024/September/One-million-more-free-meals-served-to-secondary-school-pupils.aspx

schools outside London, containing 2,237,516 pupils, of which 574,657 would be in Year 6. Further, we estimated that there would be another 139 primary schools in our already treated London boroughs of Southwark and Tower Hamlets. This amounts to a total of 15,126 schools in our comparison group(s). Based on a planned power of 0.8 and an alpha level of 0.05, the above sample size estimates implied a minimum detectable effect size (MDES) of 0.03 standard deviations (SDs) for both the difference-in-difference and the triple-difference design. This is sufficient to detect the effects found in existing evaluations of free school lunch programmes, which range between 0.03 and 0.16 (Dunifon and Kowaleski-Jones, 2003; Kitchen *et al.,* 2013; Ruffini, 2022; Schwartz and Rothbart, 2020). For details of how these sample sizes and the MDES were estimated, see the study plan (Sims, *et al.,* 2024a).

In practice, our achieved MDES was 0.02 SD, which is slightly better than our anticipated MDES of 0.03 SD. This is largely due to having more schools and pupils than anticipated.

Outcome measures

Primary outcome

The primary outcome measure is pupil achievement in the 2023/2024 academic year, which is the first year the UPFSML policy was introduced across London. This corresponds to the 'improved learning' variable in the Theory of Change. We measured this using Key Stage 2 average point score, which reflects pupils' average scores across reading, maths, and writing in their terminal primary school exams, taken in Year 6 (ages 10 or 11). The reading and maths tests are externally marked, and the writing test is teacher assessed. Key Stage 2 average point score is available as 'KS2_APS' in the NPD data. The associated baseline measure for our primary outcome is the same variable but measured for the Year 6 pupils in our schools in the pre-treatment years. This variable is measured on a scale of 3–39, but we standardise it to have a mean of 0 and an SD of 1 based on these parameters in the treatment year.

Secondary outcome

The secondary outcome measure is Year 6 pupil attendance in the 2023/2024 academic year, which is the first year the UPFSML policy was introduced across London. This corresponds to the 'reduced absence rates' variable in the Theory of Change. We treat absences the same, regardless of whether they are authorised or unauthorised. This absence measure is derived from twice-daily registration data collected by teachers in schools and recorded in the NPD data. This variable is measured as the percentage of sessions (mornings or afternoons) a pupil was recorded as in attendance. The associated baseline measure for our secondary outcome is the same variable but measured for Year 6 pupils in the pre-treatment years. We standardise it to have a mean of 0 and an SD of 1 based on these parameters in the treatment year.

There are a wide range of other intermediate outcomes that are included in the Theory of Change but are not included in the impact evaluation. This is because there was no feasible way to validly measure them at the scale required for the impact evaluation at the time of this interim report.

Statistical analysis

Difference-in-difference

We employ the following equation to derive our difference-in-difference impact estimates:

$$Y_{ijt} = \alpha + \beta_1 2024_t + \beta_2 Treat_j + \beta_3 2024_t * Treat_j + \beta_4 \boldsymbol{X}_{ijt} + \beta_5 \boldsymbol{Z}_{jt} + \beta_6 \boldsymbol{Years}_t + \beta_7 \boldsymbol{Schools}_j + \varepsilon_{ijt}$$

Where:

- Y is our primary or secondary outcome variable for pupil i in school j in year t;
- 2024 is a binary variable indicating being in the year that UPFSML was introduced (2023/2024);

- $Treat$ is a binary variable, which takes the value 1 for schools in the newly treated UPFSML areas and the value of 0 for schools in the rest of England outside London for our primary outcome, and a value of 1 for schools in the newly treated areas and a value of 0 for schools in Southwark and Tower Hamlets for our secondary outcome (see the 'Deviations from protocol' section above for further details);
- $2024_t * Treat_j$ indicates an interaction between these two variables;
- X is vector of pupil-level covariates;
- Z is a vector of school-level covariates;
- $Years$ is a vector of year fixed effects;
- $Schools$ is a vector of school fixed effects; and
- ε is the idiosyncratic error term for the model, with standard errors clustered at the school level (to reflect treatment assignment).

Our regression coefficient of interest is β_3, which captures the change in outcomes for eligible pupils in the year the UPFSML policy was introduced, over and above:

- nationwide changes in the outcome in the year the policy was introduced (captured by β_1);
- pre-treatment differences in outcome between the newly treated boroughs and the comparison areas (the rest of England in the case of our primary outcome, and already treated boroughs in London in the case of our secondary outcome) (captured by β_2);
- all other measured covariates in the model (captured by β_4 and β_5);
- nationwide year-specific changes in the outcome (captured by β_6); and
- time-invariant school-specific differences in the outcome (captured by β_7).

Triple-difference

We employ the following equation to derive our triple-difference impact estimates:

$$Y_{ijt} = \alpha + \beta_1 2024_t + \beta_2 Treat_j + \beta_3 London_j + \beta_4 2024_t * Treat_j + \beta_5 2024_t * London_j + \beta_6 X_{ijt} + \beta_7 Z_{jt} + \beta_8 Years_t + \beta_9 School_j + \varepsilon_{ijt}$$

Where all variables are defined as above and:

- $London$ is a binary variable, which takes the value of 1 for schools in London (excluding Islington, Newham, Westminster) and the value of 0 otherwise; and
- $2024_t * London_j$ indicates an interaction between these two variables.

Our regression coefficient of interest is β_4, which captures the change in outcomes for eligible pupils in the year the UPFSML policy was introduced, over and above:

- changes in the outcome outside London in the year the policy was introduced (captured by β_1);
- pre-treatment differences in outcomes between the newly treated boroughs and the rest of England outside London (captured by β_2);

- pre-treatment differences in outcomes between the newly treated boroughs on the one hand and Southwark and Tower Hamlets on the other hand (captured by β_3);
- London-wide changes in the outcome in the year the policy was introduced (captured by β_5);
- all other measured covariates in the model (captured by β_6 and β_7);
- nationwide year-specific changes in the outcome (captured by β_8); and
- time-invariant school-specific differences in the outcome (captured by β_9).

Estimation of effect sizes

As is standard in quasi-experimental evaluations, we standardise each outcome measure by dividing by the unconditional pooled SD of that outcome measure in the treatment year. We then directly report the regression coefficient (and associated confidence interval [CI]), which is equivalent to a Cohen's d effect size. This can also be interpreted as a Hedges' g effect size as the correction factor is negligible given the number of observations. For our test score outcome measures, we also convert this effect size into 'months of progress' using the EEF scale.

Robustness checks and sensitivity analysis

We conducted extensive checks on the plausibility of the parallel trends assumptions by estimating in-time placebo tests. This involves looking for treatment effects, conditional on covariates, in years prior to the UPFSML policy being introduced. If no such placebo effects are found, this suggests that outcomes in the treatment and comparison groups in the years prior to the UPFSML being introduced were moving in parallel. This makes it more plausible that outcomes in the period after UPFSML was introduced would also have moved in parallel, were it not for UPFSML being introduced. By contrast, if we do find placebo effects, this suggests that outcomes in the years prior to the UPFSML being introduced were not moving in parallel. This makes it less plausible that outcomes in the period after UPFSML was introduced would also have moved in parallel, were it not for UPFSML being introduced. We are not aware of any shocks that occurred in 2023/2024 that would have affected our treated and comparison group boroughs differently.

Our analysis makes use of a very large dataset, meaning that even very small, estimated effects can be statistically significant. When interpreting positive and statistically significant estimated effects, we therefore, place particular focus on the size of the placebo effect estimates relative to the size of our impact estimates. If the former are of similar or larger size to the latter, then this suggests that our impact estimate could be entirely driven by variation that is unrelated to the UPFSML policy. In such cases, we refrain from interpreting our impact estimates as reflecting the impact of the policy. Instead, they should be seen as reflecting some mix of the causal impact of the policy and bias resulting from differences between the treatment and comparison groups besides receipt of the policy.

Missing data analysis

The NPD has little to no missing data on the variables that we are using.

Subgroup analyses

In line with research question 7, we report results from the above models of attendance and achievement estimated on subgroups of pupils based on their IDACI, major ethnic group, and FSM eligibility (FSM6) prior to the reform.

IPE

Research questions

The IPE addressed the following research questions, exploring the UPFSML policy intervention from the perspective of Key Stage 2 pupils and families, as well as from the perspective of schools and school communities.

Regarding children and their families:

1. What has been the change in uptake of Key Stage 2 school meals as a result of UPFSML?
    a. By pupil characteristics (e.g. prior and current FSM eligibility, ethnicity, dietary requirements).
    b. By school characteristics (e.g. borough, inner/outer London, Ofsted rating, IDACI index).

2. What factors are involved in family and Key Stage 2 children's decisions to take up FSM (including suitability of food and dining environment, stigma)?

3. What are the influences of UPFSML as perceived by parents, carers, and pupils?
    a. On household financial stability (including workplace absence).
    b. On family stress, mental health, and well-being (including stigma and self-perception of FSM).
    c. On child and family nutrition (including school meal quality, family eating habits).

4. Are there any other impacts or unintended consequences of UPFSML on families and pupils?

Regarding schools and school communities:

5. Has the school been able to offer school meals to all children?
    a. Hot meals.
    b. Appropriate portion size.
    c. Choices available.
    d. Dietary requirements catered for (including kosher, halal, vegan, vegetarian, coeliac, and lactose intolerance).
    e. Appropriate and sufficient time to eat in the day.

6. What facilitators and barriers have there been to delivering UFSML?
    a. Regarding staffing.
    b. Regarding scaling kitchen and dining facilities.
    c. Regarding finances.
    d. Other facilitators/challenges (including GLA communications).

7. What influence has UPFSML had on the following?
    a. School community cohesion.
    b. School meal quality.
    c. Well-being of administrators.
    d. Well-being of teachers.
    e. Learning environments (cognitive function, engagement, behaviours, readiness, and absence).

8. What are the perceived potential impacts of UPFSML on:
    a. Environmental sustainability (waste).
    b. Local economy (including use of external contractors).

9. Are there any other impacts or unintended consequences of UPFSML on schools and school communities (including impact on Pupil Premium enrolment)?

Research methods

Our mixed methods IPE was designed to interrogate the Theory of Change (described within the 'Introduction' section), while also allowing us to capture any unintended consequences of UPFSML. We followed the EEF guidance (Humphrey *et al.,* 2016; 2019) to specify IPE dimensions. Minimising burden on participants was a central concern in the evaluation, and to support this we co-ordinated with two other organisations conducting evaluations of the rollout of UPFSML during the 2023/2024 school year. This included a shared initial headteacher survey, and co-ordinated sampling for case studies, necessitating some small changes to our initial design. These evaluators are not conducting additional research within 2024/2025. Information about the other evaluations can be found on the Mayor of London website.[15]

Compliance

We defined a school as being compliant with the UPFSML policy if they are offering FSM to all pupils. We anticipated that some schools may experience set-up issues and might only become compliant sometime after the beginning of the 2023/2024 school year.

Fidelity

Fidelity is a more expansive concept than compliance. We defined it as schools meeting the intentions of the UPFSML programme. This includes:

- FSM being offered every weekday to all pupils;
- lunchtimes being at appropriate times (e.g. between 12.00 p.m. and 2.00 p.m.);
- lunchtimes being long enough for pupils to get lunch and eat (e.g. 30+ minutes);
- hot food being offered;
- a choice of meals being offered;
- dietary requirements being catered for (e.g. vegetarian, vegan, meals associated with SEND, religion, or belief);
- meals being offered, which are considered nutritious by headteachers and parents (and pupils by proxy); and
- meals being an appropriate portion size for 7–11-year-olds.

Table 5: IPE methods overview for 2023/2024

Research methods	Data collection methods	Participants / data sources	Data analysis methods	Research questions addressed
Analysis of Key Stage 2 uptake data	Management Information System (MIS) data and school survey	One MIS and all school data systems	Uptake vs eligibility and prior uptake	1
School survey	Short online survey Spring Term 2024; follow-up survey Spring Term 2025	Invitations to all schools in London (~1,800)	Descriptive statistics	5, 6, 7, 8, 9
Parent/carer survey	Short online survey in Autumn Term 2024	Distributed by schools to all Key Stage 2 parents/carers (~300k)	Descriptive statistics and subgroup analysis	1, 2, 3, 4, 5
Case studies	Headteacher, caterer and parent interviews; teacher and pupil focus groups; lunchtime observations	~10 in-depth case studies in schools in 2024 face-to-face	Triangulated thematic analysis by research questions	All research questions
Parent/carer interviews	Online interviews	~20 additional parents/carers in 2024	Thematic analysis by research questions	2, 3, 4, 5

[15] See: www.london.gov.uk/

Table 5 above summarises the IPE research methods deployed in 2023/2024,[16] including the intended sample sizes. Below we describe each in more detail, including the actual samples, before considering analysis.

School meal uptake data

The GLA collected data on uptake of FSM through one of the MISs, which supports school data collection and management. This was analysed by the City Intelligence team in London's City Hall, and findings were shared with our team and are reproduced within our own findings.

The sample of schools using the Arbor MIS provides a useful but partial picture of UPFSML uptake across London.[17] Arbor's MIS data covers approximately 13% of London primary schools delivering UPFSML, representing 259 schools and around 49,000 pupils in the Summer Term 2023/2024, and 235 schools with 43,913 pupils in the Spring Term 2023/2024. This equates to roughly 11% of the total Year 3 to 6 pupil population in London. While the sample spans 30 London boroughs, it excludes two London boroughs (Hillingdon and Ealing) and the City of London (which only has one state primary school). There is also low representation in other boroughs, limiting borough-level analysis. Initial analysis by the City Intelligence team suggests that Arbor schools are broadly similar to other London schools in terms of IDACI deprivation deciles, religious character, and school type, suggesting some degree of representativeness by key characteristics. However, Arbor's sample may not be fully representative. Importantly, it is unknown whether pupils in Arbor-supported schools differ systematically from those in schools using other MIS providers. We recommend caution in interpreting borough-level trends and note that weighting the data to reflect the London school population is planned to improve representativeness. We will include this in later reporting if it is available.

School surveys and parent/guardian surveys (see below) were used to triangulate the Arbor MIS data around changes in uptake in FSM, using a different dataset. We also investigated uptake data where available during case study visits and included questions about this within case study interviews.

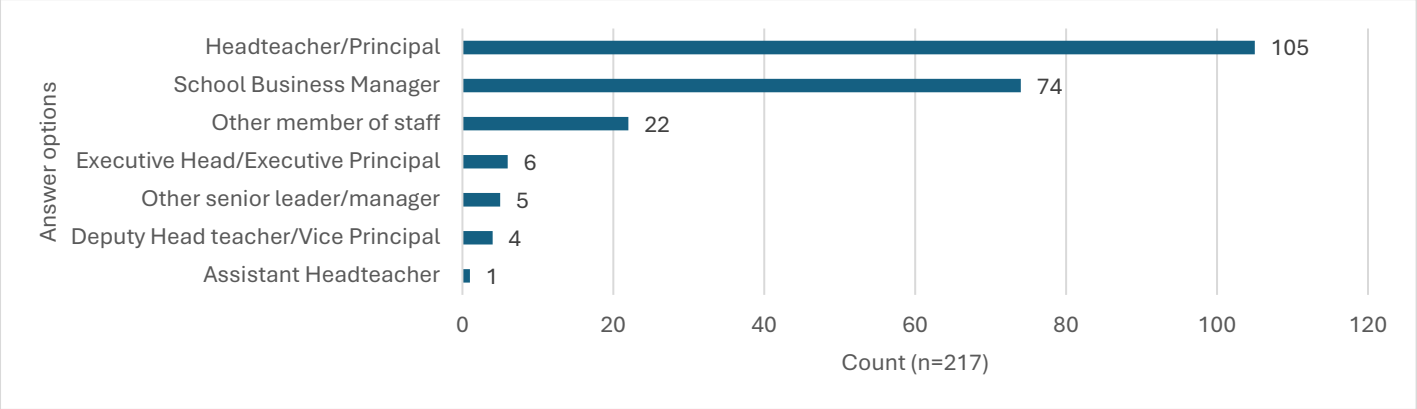
School survey

In January 2024, an online survey was sent to all primary headteachers, to investigate ease of implementation, facilitators, mediators, and barriers. This was distributed by ICF (one of the two organisations conducting concurrent evaluations) with support and further dissemination from our team. The survey included sections around procurement, operations, and contract management, funding, accountability, and quality assurance. Headteachers or nominated school staff (e.g. business managers), completed items focused on compliance/fidelity, outcomes including school community cohesion, meal quality and services, staff well-being, and learning environments. We also asked headteachers whether there were any fixed costs involved in moving to UPFSML and tried to get a sense of their magnitude. Return rates were incentivised through a prize draw.

We received 217 complete responses to the survey, out of approximately 1,480 schools newly eligible for UPFSM.[18] Respondents indicated their roles as below in Figure 2:

[16] Further methods deployed in 2024/2025 will be described in the final project report in 2026.
[17] Further information about the sample within Arbor MIS data can be found at: https://data.london.gov.uk/download/2yp8w/7e9e92a1-3eee-4f32-8733-68129683d376/City%20Intelligence%20analysis%20of%20Arbor%20data%20and%20additional%20uptake%20sources%20.pdf
[18] Assuming random sampling and a 95% confidence level, the margin for error in this sample is approximately ±6%. We present further information on the sample below but recognise that sampling may not be truly random.

Figure 2: Roles of respondents to the school survey



Respondents indicating 'other' to their role, included school administrators, office managers, heads of finance and operations, trust catering managers, bursars, and finance assistants. We identified seven duplicate responses from schools and selected the most complete response and/or those completed by headteachers in these cases.

We received responses from more than one state-funded primary school in each of the 32 London boroughs (but not the City of London, which has only one state primary school). Response numbers by borough are included below, with numbers fewer than four omitted to protect anonymity):

Table 6: Number of responses to the school survey (with approximate percentage of state primaries in each London borough)

Borough	No.	Borough	No.	Borough	No.	Borough	No.
Barking and Dagenham	<4	Enfield	10 (15%)	Hounslow	15 (28%)	Redbridge	<4
Barnet	10 (11%)	Greenwich	6 (10%)	Islington	<4	Richmond upon Thames	7 (16%)
Bexley	<4	Hackney	12 (21%)	Kensington and Chelsea	3 (11%)	Southwark	5 (7%)
Brent	<4	Hammersmith and Fulham	4 (11%)	Kingston upon Thames	5 (14%)	Sutton	5 (13%)
Bromley	<4	Haringey	4 (6%)	Lambeth	8 (13%)	Tower Hamlets	<4
Camden	<4	Harrow	7 (17%)	Lewisham	9 (14%)	Waltham Forest	4 (8%)
Croydon	6 (7%)	Havering	5 (8%)	Merton	10 (23%)	Wandsworth	4 (7%)
Ealing	7 (10%)	Hillingdon	12 (17%)	Newham	5 (8%)	Westminster	4 (10%)

Parent survey

We worked with all primary schools in London to distribute a short anonymous online survey to parents and carers in Spring Term 2024, hereafter called the 'Parent survey' for ease of reference. This investigated eligibility and uptake in 2022/2023 and 2023/2024 and the reasons for this, including factors around stigma, pupil choice, perceived quality, parental choice (e.g. monitoring diet), dietary requirements, and ease of access. The survey also investigated impact upon financial stability, family stress, and total nutrition—child and household, as well as unintended consequences on families. Return rates were supported through individualised follow-up with schools, distribution of the survey link through social media, school contacts, and contacts at the GLA and London boroughs. We further incentivised responses through a prize draw.

We received 1,475 usable survey responses, after excluding the five London boroughs who already offered FSM to Key Stage 2 children (Newham, Islington, Southwark, Tower Hamlets, and Westminster). The distribution of total responses across London boroughs is shown in Table 7 below (with numbers fewer than five omitted to protect anonymity). However, it should be noted that these responses were from 102 primary schools, with the maximum number of unique schools per borough being ten. Although we included a validated list of all schools within the survey, some respondents did not enter a school name but did enter a borough. As such, we cannot confirm the exact number of schools per borough. However, it is unlikely that the sample is representative of the broader London population at the level of school or family.

Table 7: Parental responses by London borough

Borough	No.	Borough	No.	Borough	No.	Borough	No.
Barking and Dagenham	<5	Enfield	11	Islington	0	Southwark	0
Barnet	121	Greenwich	50	Kensington and Chelsea	10	Sutton	145
Bexley	38	Hackney	47	Kingston upon Thames	58	Tower Hamlets	60
Brent	43	Hammersmith and Fulham	0	Lambeth	18	Waltham Forest	9
Bromley	79	Haringey	27	Lewisham	14	Wandsworth	0
Camden	46	Harrow	167	Merton	25	Westminster	16
City of London	<5	Havering	178	Newham	16	NA	42
Croydon	24	Hillingdon	239	Redbridge	13		
Ealing	21	Hounslow	15	Richmond upon Thames	16		

NA=not available.

Case studies

We intended to conduct ten in-depth case studies across Spring Term 2024 to Autumn Term 2024, but where it was easy to attend two schools in the same borough at the same time we did, resulting in 14 case studies. Case studies were recruited through emails to all schools, promoted by individualised follow-up and financial incentives (£250 per day) to support the time of school colleagues to organise the components of the visits. We selected case studies from those schools offering to host them so as to engage four inner London boroughs (Camden, Kensington and Chelsea, Lambeth, and Lewisham) and seven outer London boroughs (Brent, Ealing, Harrow, Hounslow, Kingston, Redbridge, and Sutton). We also selected schools to include a range of sizes (from ~200 to ~600 children), a range of Ofsted grades and a range of FSM eligibilities (schools visited had a mean of 24% eligibility and range of 6% to 56%, compared to a London mean of 24.6%). Two of the schools visited had resourced additional provision for SEND.

Case study visits included observation of a lunchtime to consider nutrition, meal availability and choice, and organisation. Where appropriate, we interviewed catering staff and lunchtime supervisors. We photographed the serving/dining space, meals, and menus (but not children). Case studies also included separate headteacher interviews, parent interviews, teacher focus groups, and pupil focus groups. We asked schools to select representative samples of children in Key Stage 2 for us to speak to, including those eligible for Pupil Premium and with SEND where appropriate. Between 5 and 20 children were spoken to in each school. Through collecting anonymised demographic information from school staff, we ascertained that the total sample of 136 children spoken to within case studies included 39% eligible for Pupil Premium, 22% with SEND, and 58% from ethnicities other than White British. National datasets[19] suggest that of the state-funded primary school pupils in London, in 2023/2024, there were 18.2% of pupils with SEND, and 76.9% of pupils were from backgrounds other than White British. Prior to the introduction of UPFSML, 24.9% were eligible for FSM in 2023/2024, which may be seen as a proxy for Pupil Premium levels. Comparison to the demographic data for case study pupils shows a broad alignment with these demographic data. However, we caution against any strong inference around representation in our case study research, which was intended to explore as broad a range of experiences of the policy initiative as possible.

Semi-structured interview protocols and observation schedules were devised relative to the IPE research questions, with additional items added to interrogate emergent findings from the school survey. Interviews and focus groups were audio recorded. Around 24.9% were eligible for FSM, 76.9% were ethnicities other than White British.

Online parent interviews

In addition to the interviews conducted in case studies, we sought to re-contact permission from the parent survey to conduct 39 online parent/carer interviews. Semi-structured protocols were developed from the parent interview protocols used in case studies, so as to allow integration of findings. In total, 39 online interviews with parents were conducted by one of the team during Summer Term 2024. Interviews lasted from 9 to 40 minutes (with a mean of 17 minutes). The sample

[19] See: https://explore-education-statistics.service.gov.uk/data-tables/school-pupils-and-their-characteristics

included parents and carers of Years 3 to 6 pupils, from 16 London boroughs (Barnet, Bexley, Brent, Bromley, Camden, Greenwich, Harrow, Havering, Hillingdon, Hounslow, Kingston upon Thames, Lewisham, Merton, Newham, Richmond upon Thames, and Sutton).

Analysis

School meal uptake data was analysed using descriptive statistics, considering subgroup analyses where appropriate.

Survey data was analysed using descriptive statistics and, where appropriate, considered variation of responses across boroughs and by demographic factors/subgroups. Data was removed from the five London boroughs already providing UPFSM prior to 2023/2024 so that analysis pertained to implementation of the policy initiative.

Online parent/carer interviews (outside of case studies) were analysed by one member of the research team, using reflexive thematic analysis (Braun and Clarke, 2019). Case study interview data were transcribed and coded inductively (also using reflexive inductive coding). Headteacher interviews were coded first, then teacher, caterer, and pupil focus groups, to arrive at case-level thematic codes. A sample of three cases were initially coded by two of the research team, who then met to review and refine codes. One of the researchers then coded the rest of the case study dataset, with further adaptation of codes. Parent focus groups within cases were initially coded using the codes derived from the online parent interviews, and then integrated into cases, adding additional case-level codes. Once all data were coded, a second layer of inductive coding then drew on the emergent codes to develop overall themes for reporting, and to link codes to the IPE research questions. Uptake and survey descriptives were then combined with thematic codes at the point of reporting and are described together under findings later in this report.

It should be noted that while codes were derived at the level of school cases, and individual parent interviews, this report is organised according to the secondary layer of coding, so as to report by research question. Emergent themes are then included within the narrative under each research question, and exemplified through quotations from relevant stakeholders, or graphical representations of survey data.

Impact evaluation and IPE findings were integrated through interrogation of the Theory of Change, and comparison of impact datasets, IPE survey findings, and qualitative findings.

Costs

We report estimated cost to the GLA of the policy derived from public-domain budgetary information. We report this figure both per year and—in line with the EEF conventions—per three years.

We do not estimate fixed costs related to investment in additional kitchen or dining facilities necessary to expand provision to all Key Stage 2 pupils. However, we did qualitatively explore any additional financial and time costs incurred by schools through our headteacher surveys and case studies of schools, conducted as part of the IPE. In particular, our school survey explored per meal costs and the fixed costs involved in moving to UPFSML.

Timeline

Table 8: Timeline for the evaluation reported in this document

Dates	Activity	Staff responsible / leading
February 2023	Mayor of London announces that UPFSML will be introduced as an 'emergency measure' for the 2023/2024 school year	
September 2023	UPFSML introduced	
November 2023	Study set-up, draft study plan submitted, first study advisory board (SAB) meeting held	Sam Sims
April 2024	Final study plan published, full ethics approval received, study publicly registered	Sam Sims
May 2024	Key Stage 2 exams for the first Key Stage 2 exam cohort affected by UPFSML	
July 2024	First year IPE data collection completed: • School case study visits • Headteacher interviews • Parent interviews • School survey • Parent survey Participant incentives paid	Mark Hardman
March 2025	Access to NPD data up to 2023/2024 academic year	Jake Anders Sam Sims
September 2025	Draft interim report submitted (containing first year IPE and first year NPD analysis)	Mark Hardman Jake Anders Sam Sims
October 2025	Final edited interim report submitted	Mark Hardman Jake Anders Sam Sims
October 2025	SAB meeting held	Mark Hardman Jake Anders Sam Sims

Table 9: Timeline of evaluation work to be reported in future reports

Dates	Activity	Staff responsible / leading
April 2024	Mayor of London announces that UPFSML will be extended for four further years (2024/2025, 2025/2026, 2026/2027, and 2027/2028)	
May 2025	Key Stage 2 exams for the second Key Stage 2 exam cohort affected by UPFSML	
July 2025	Second year IPE data collection completed: • School case study visits • Headteacher interviews • Parent interviews • School survey • Parent survey Participant incentives paid	Mark Hardman
November 2025	Access to Understanding Society data, including additional outcome measures (concentration, well-being, subjective	Sam Sims

Dates	Activity	Staff responsible / leading
	financial distress, supermarket food expenditure), up to Wave 15	
March 2026	Access to NPD data up to 2024/2025 academic year	Jake Anders
August 2026	Draft interim report submitted (containing year one IPE, year two IPE, year one NPD analysis, year two NPD analysis, Understanding Society analysis	Mark Hardman Jake Anders Sam Sims
October 2026	Final edited interim report submitted	Mark Hardman Jake Anders Sam Sims
October 2026	SAB meeting held	Mark Hardman Jake Anders Sam Sims

Impact evaluation results

Participant flow including losses and exclusions

Figure 3: Participant flow diagram (three-arms)

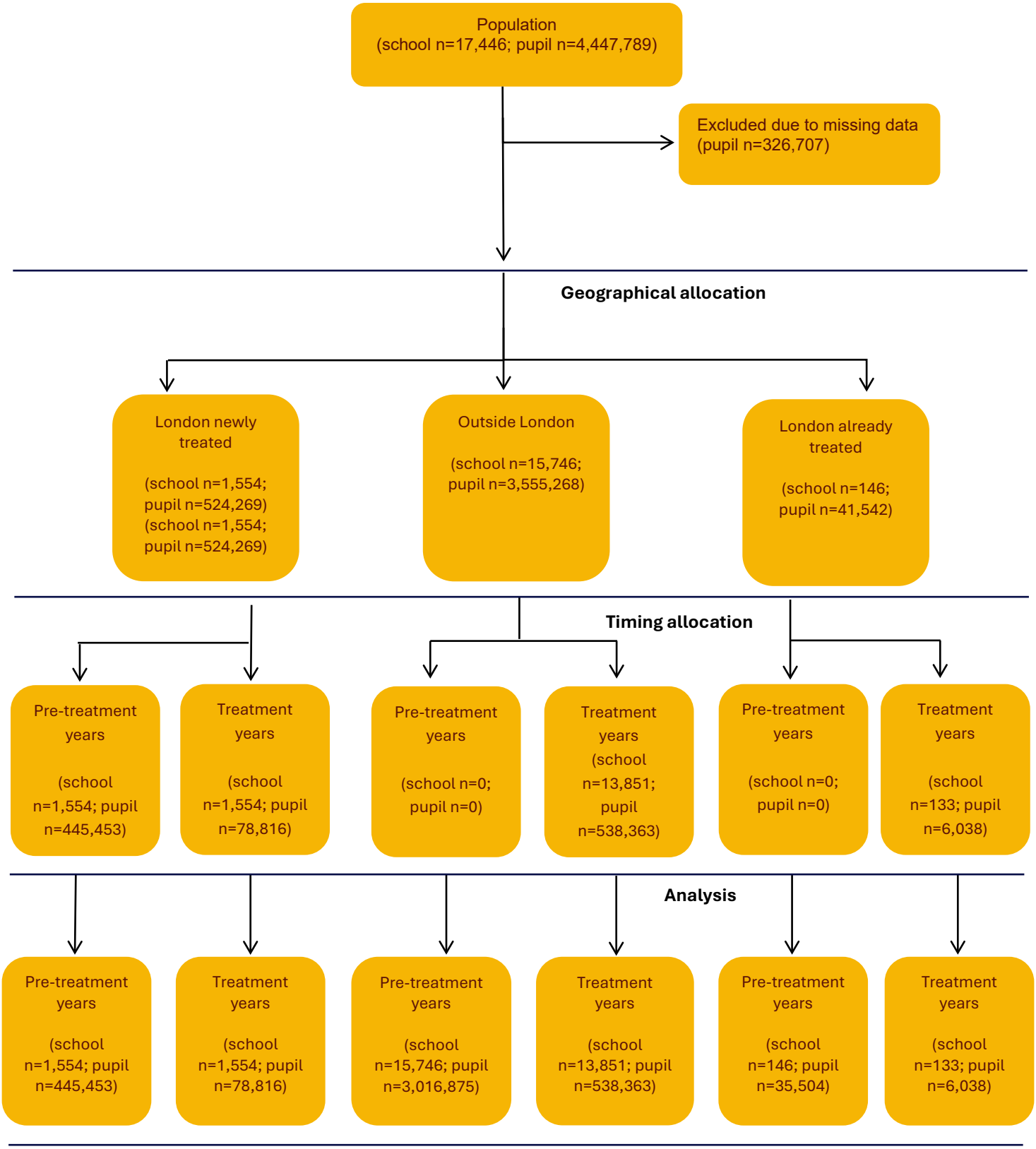


Table 10: MDES at different stages

		Study plan		Analysis	
		Overall	FSM	Overall	FSM
MDES		0.03	0.04	0.02	0.02
Pre-test/post-test variance explained (R-squared)	Level 1 (pupil)	0.75 (R^2=0.58)	0.75 (R^2=0.58)	(R^2=0.18)	(R^2=0.19)
	Level 2 (class)	N/A	N/A	N/A	N/A
	Level 3 (school)	0.71 (R^2=0.5)	0.71 (R^2=0.5)	(R^2=0.27)	(R^2=0.15)
Intracluster correlations (ICCs)	Level 2 (class)	N/A	N/A	N/A	N/A
	Level 3 (school)	0.2	0.2	0.12	0.10
Alpha		0.05	0.05	0.05	0.05
Power		0.8	0.8	0.8	0.8
One-sided or two-sided?		Two-sided	Two-sided	Two-sided	Two-sided
Average cluster size		40	10	236	69
Number of schools	Intervention	1,506	1,506	1,554	1,554
	Control	14,987	14,987	15,746	15,746
	Total:	16,493	16,493	17,300	17,300
Number of pupils	Intervention	82,528	15,060	524,269	171,762
	Control	574,657	164,930	3,555,268	1,018,182
	Total:	657,185	179,990	4,079,537	1,189,944

N/A=not applicable.

Attrition

Table 11 below shows that the pupil-level attrition rate was between 7% and 9% across the groups in our study. The main reasons for attrition were missing data on the primary outcome measure (around 5% of the population data), the main baseline attainment data (around 3% of the population data) along with other demographic characteristics included in our pre-specified analysis model (IDACI: 0.2%; English as an Additional Language [EAL] 0.1%; all others below this). Given this was the nature of this missing data, it would normally be a good candidate for robustness checking using multiple imputation. However, given the number of observations involved, this would not be computationally feasible in the context of the computing environment available (ONS SRS).

Table 11: Pupil-level attrition from the trial (primary outcome)

		London newly treated	London already treated	Outside London	Total
Number of pupils	In population	578,392	45,484	3,823,913	4,447,789
	Analysed	524,269	41,542	3,555,271	4,121,082
Pupil attrition (from population to analysis)	Number	54,123	3,942	268,642	326,707
	Percentage	9	9	7	7

Pupil and school characteristics

Table 12 below compares the characteristics of the treatment group with the nation as a whole. It shows that the two groups are broadly comparable, with the exceptions of ethnicity and language: the treatment group includes substantially more ethnic minorities and individuals with EAL than there are in the national population. These differences do not affect the interpretation of our results, however, because we control for all of these variables in our models.

Table 12: Baseline characteristics of groups as randomised

School level (categorical)	National level	Intervention group	
	National level %	N	Count (%)
Participated in Magic Breakfast	7.2	1,597	285 (18)
School level (continuous)	National level mean (SD)	N	Mean (SD)
% Pupil Premium eligible	29 (19)	1,597	34 (18)
% SEND	21 (14)	1,597	21 (13)
% EAL	17 (22)	1,597	47 (23)
Pupil level (categorical)	National level %	n/N	%
FSM eligibility:		80,645	
Eligible	29	24,324	31
Not eligible	71	56,321	69
Gender:		80,645	
Female	50	40,123	50
Male	50	40,522	50
Month of birth:		80,645	
January	8.6	6,839	8.5
February	7.8	6,325	7.8
March	8.3	6,696	8.3
April	7.9	6,235	7.7
May	8.5	7,030	8.7
June	8.1	6,623	8.2
July	8.4	6,999	8.7
August	8.5	6,775	8.4
September	8.5	6,859	8.5
October	8.5	6,853	8.5
November	8.4	6,740	8.4
December	8.4	6,671	8.3
Ethic group:		80,645	
White	72	33,710	42

Black	5.7	13,773	17
Asian	12	17,822	22
Other	9.5	15,340	19
SEND:		80,645	
Not identified	83	67,192	83
Identified	17	13,453	17
EAL status:		80,645	
English as a native language	78	42,128	52
EAL	22	38,517	48
IDACI decile group:		80,645	
Group 1 (low deprivation)	10	3,164	3.9
Group 2	10	9,606	12
Group 3	10	10,978	14
Group 4	10	11,527	14
Group 5	10	10,729	13
Group 6	10	9,698	12
Group 7	10	8,254	10
Group 8	10	6,476	8.0
Group 9	10	5,244	6.5
Group 10 (high deprivation)	10	4,969	6.2
Pupil level (continuous)	National level mean (SD)	N	Mean (SD)
Year-standardised early years foundation stage profile (EYFSP) average score	0.08 (0.94)	80,645	-0.03 (1.09)

Note: These figures are based on analysis of school- and pupil-level NPD data in 2022/2023 academic year (i.e. the final pre-treatment year).

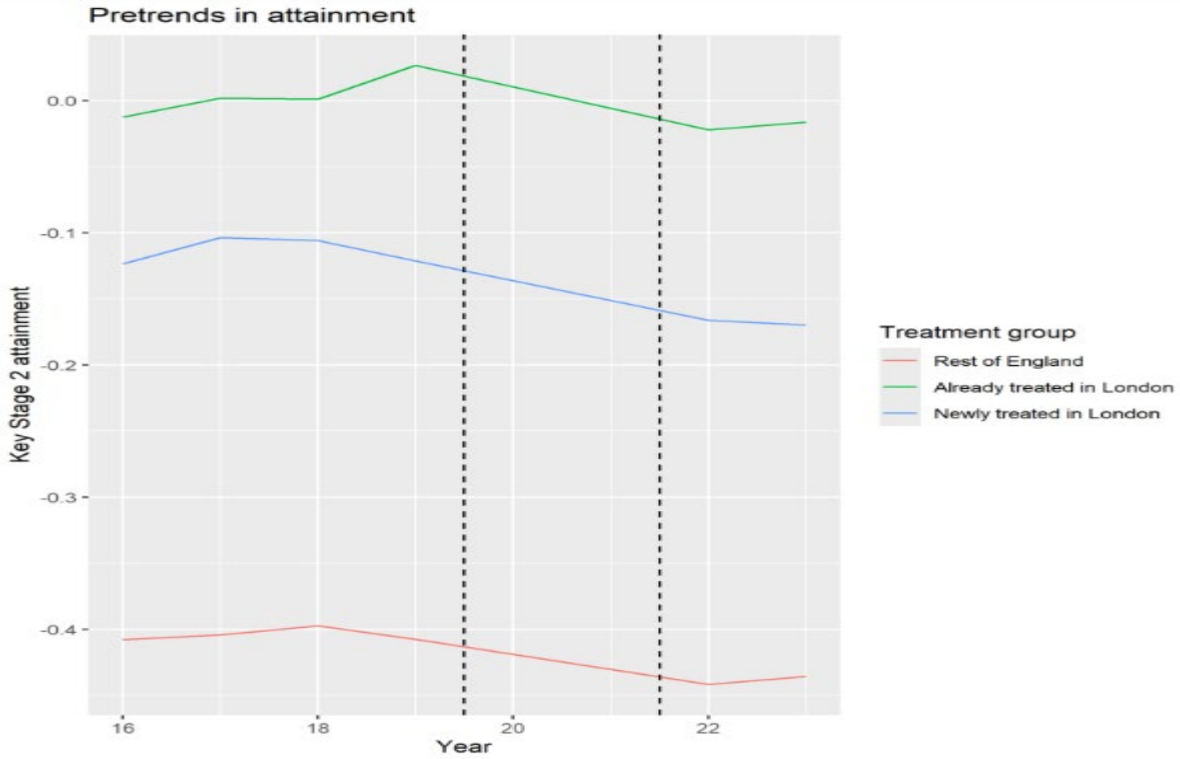
Outcomes and analysis

Preliminary analysis: Attainment

Figure 4 below shows the trends in attainment for the three groups that we use across our difference-in-difference and triple-difference research designs. The vertical axis shows our primary outcome: Key Stage 2 attainment for Year 6 pupils. The horizontal axis runs from the 2015/2016 academic year through to the 2022/2023 academic year. UPFSML was introduced in 2023/2024, meaning these are pre-treatment trends. The outcome measure is missing for 2019/2020 and 2020/2021 because the relevant exams were cancelled due to COVID-19. We have included a linear interpolation of these two periods on the graph, but this does not factor significantly into our assessment of the existence of parallel trends.

Looking across the three lines, they follow a broadly similar trend: rising initially; falling over the subsequent three-year period; then rallying slightly in the final year. The main difference across the three groups is how long they were initially rising for: just one year for the newly treated (blue) group; two years for the rest of England (red) group; and three years for the already treated (green) group. Based on a visual inspection, the trends look broadly parallel in the pre-treatment period. This is consistent with the identifying assumptions necessary for our difference-in-difference and triple-difference research designs for our attainment outcome. We check these assumptions more formally below, using in-time placebo tests.

Figure 4: Pre-treatment trends in pupil attainment



Note: The figure plots the means of standardised Key Stage 2 attainment in the pre-treatment years by treatment group. Note that there are no estimates in 2020 and 2021 (between the dotted vertical lines) due to the COVID-19 pandemic disruption.

Figure 4 above shows the raw outcomes across groups. However, the difference-in-difference and triple-difference designs only require parallel trends conditional on covariates and (for the triple-difference) with respect to both comparison groups (red and blue lines) simultaneously. Appendix D Figure 1 shows in-time placebo tests in which we test for any deviation from parallel trends across pre-treatment periods using our difference-in-difference specification, conditional on covariates. The vertical axis shows the size of the estimated placebo effect for each year and the grey region around the line shows the 95% CI. The figure shows that the placebo effect estimates are never more than 0.02 SD away from 0. These differences are statistically significant because of our extremely large sample.

Appendix D Figure 2 shows in-time placebo tests in which we test for any deviation from parallel trends across pre-treatment periods using our triple-difference specification, conditional on covariates, and with respect to both comparison groups simultaneously. The placebo effects estimated in the first year (2016/2017) are -0.05 SD, with the placebo effects in all subsequent years being 0.02 SD or less. We report results below excluding 2016/2017 to check the sensitivity of our estimates.

Preliminary analysis: Attendance

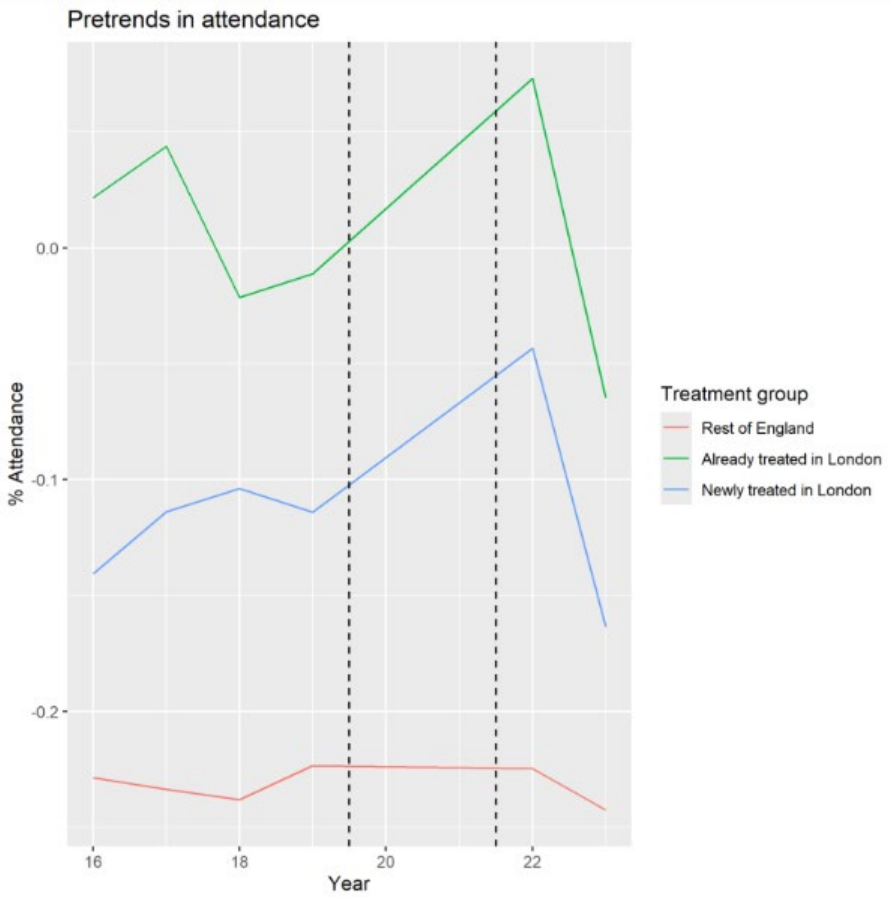
Figure 5 below shows the trends in attendance for the three groups that we use across our difference-in-difference and triple-difference research designs. The vertical axis shows our secondary outcome: attendance for pupils in Year 6. This has been standardised such that 0% represents the average attendance rate in the treatment year (2023/2024). The horizontal axis is analogous to Figure 4 above.

The newly treated areas in London (blue line) have attendance initially increasing slightly between 2015/2016 and 2016/2017, before falling slightly in the subsequent year. Attendance then falls sharply between 2021/2022 and 2022/2023. The rest of England (red line) has a broadly flat trend in attendance across the period. The already treated areas in London (green line) show attendance initially increasing slightly between 2015/2016 and 2016/2017, then falling until 2017/2018, before rising slightly in 2018/2019. Like the blue line, the green line falls sharply after 2021/2022. Looking across the lines, the blue (newly treated) and green (previously treated) follow a broadly parallel trend in the pre-treatment period. However, the red line (rest of England) clearly follows a different trend. The conditional parallel trends plot (in-time placebo tests) can

be found in Additional Appendix Figure 7 (difference-in-difference) and Additional Appendix Figure 8 (triple-difference). These show fairly large in-time placebo effects of up to |0.04| and |0.05|, respectively.

Our pre-registered plan for analysing the attendance outcome was to compare the blue and red lines (difference-in-difference) and all three lines (triple-difference). Figure 5 below raises doubts about the identifying assumptions necessary for both of these research designs for our attendance outcome. However, it also suggests that comparing the blue and green lines would be a sensible alternative approach in that their trends are broadly parallel, which is consistent with the identifying assumptions necessary for a difference-in-difference research design for our attendance outcome. Additional Appendix Figure 197 shows the conditional (in-time placebo) plot for this within-London comparison. The in-time placebo estimates are |0.04| in the 2015/2016 academic year but are no larger than |0.02| in subsequent years. We therefore, emphasise this within-London difference-in-difference specification for our attendance outcome measure and check the sensitivity of the results to excluding the first year of data (see 'Deviations from the study plan' subsection in the 'Methods' section above).

Figure 5: Pre-treatment trends in pupil attendance



Note: The figure plots the means of standardised attendance in pre-treatment years by treatment group. Note that no estimates are included for 2020 and 2021 (between the dotted vertical lines) consistent with removing these in the primary outcome analysis due to data availability stemming from the COVID-19 pandemic disruption.

Impact estimates

Table 13 below shows the results of our impact estimates across our attainment (top of the table) and attendance (bottom of the table) outcome measures. Across all specifications, sample sizes are very large and CIs are correspondingly narrow. All of the impact estimates for attainment are very small: 0.01 or less and are not statistically significant. All of the impact estimates for attendance are also very small: 0.03 or less. However, some of these are statistically significant. Of particular interest is the within-London difference-in-difference estimate (final row), for which the trends looked more parallel in the pre-treatment period. The impact estimate in this specification is 0.03. However, the in-time placebo estimates for this specification reach a maximum of |0.04|, which is larger in absolute value than the impact estimate. Therefore, we refrain from interpreting this as the impact of the UPFSML policy. Instead, it should be seen as reflecting some mix of the causal

impact of the policy and bias resulting from differences between the treatment and comparison groups besides receipt of the policy.

Table 13: Primary analysis

Outcome	Sample sizes: Pupils (schools)			Effect size	
	Treated group (London newly treated in 2024)	Comparison group (all others)	Overall	Cohen's d	95% CI
Attainment (primary outcome) Difference-in-difference	78,816 (1,459)	4,000,721 (15,841)	4,079,537 (17,300)	0.010	(-0.002, 0.023)
Attainment (primary outcome) Triple-difference	78,816 (1,459)	4,042,263 (15,987)	4,121,079 (17,446)	0.006	(-0.042, 0.053)
Attainment (primary outcome) Within-London difference-in-difference	78,816 (1,459)	486,995 (241)	565,811 (1,700)	0.000	(-0.046, 0.047)
Attendance (secondary outcome) Difference-in-difference	78,816 (1,459)	3,995,733 (15,836)	4,074,549 (17,295)	0.010	(0.002, 0.017)
Attendance (secondary outcome) Triple-difference	78,816 (1,459)	4,037,212 (16,133)	4,116,028 (17,592)	0.036	(0.013, 0.060)
Attendance (secondary outcome) Within-London difference-in-difference	78,816 (1,459)	486,083 (240)	564,899 (1,699)	0.030	(0.007, 0.053)

Subgroup and sensitivity analyses

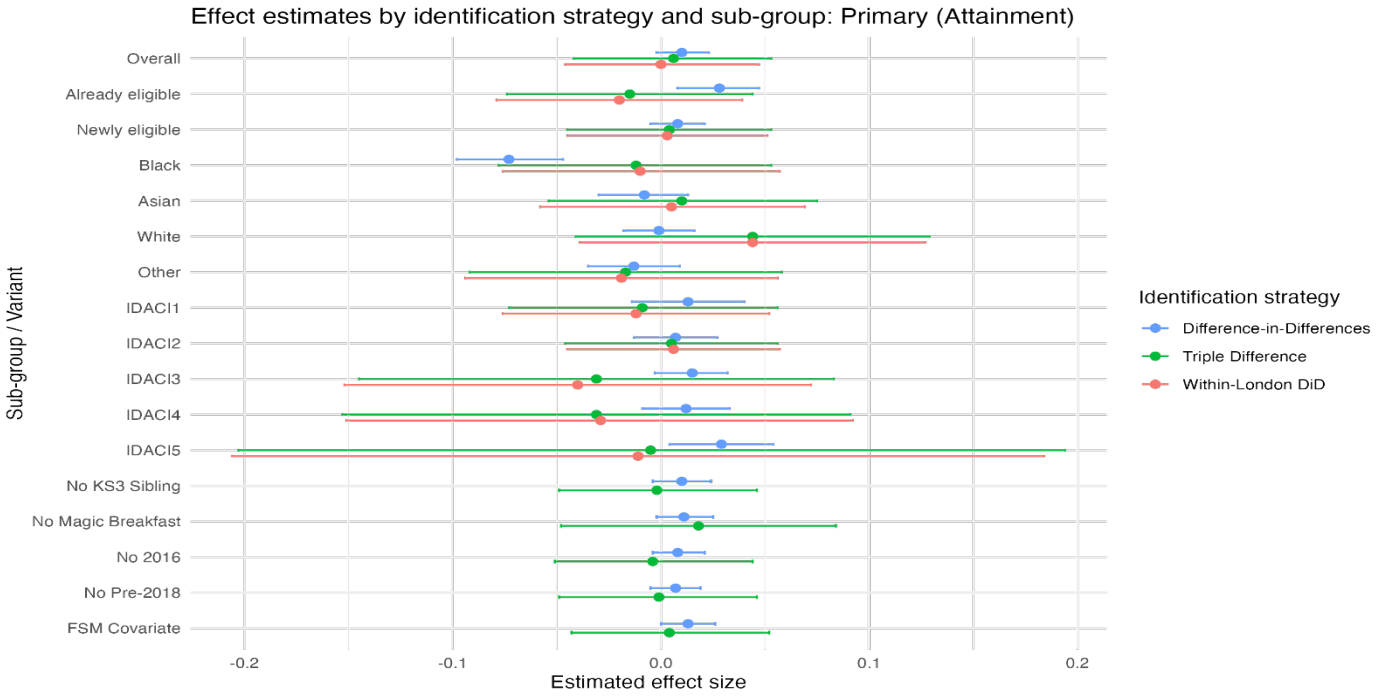
Figure 6 below shows a range of heterogeneity and sensitivity analyses for our (primary) attainment outcome. Coefficients for the effect of the policy on attainment from difference-in-difference comparing newly treated and non-London are shown in blue, triple-difference in green, and within-London difference-in-difference models in red. These are shown for the overall sample (top coefficient cluster) and for subgroups based on eligibility for FSM prior to the policy, ethnicity, and area deprivation (IDACI) quintile group (1 = least deprived; 5 = most deprived) (coefficient clusters 2–12). The last five clusters of coefficients (13–18) report sensitivity analyses excluding pupils with siblings in Key Stage 3, in schools that have ever taken part in the Magic Breakfast school feeding programme, excluding the first one or two years of the observation window and, finally, based on a specification that includes controls for FSM status.

Looking first at already eligible pupils, the difference-in-difference estimate is statistically significant. However, the in-time placebo estimates for this specification reach |0.03| in 2019/2020 (Additional Appendix Figure 33), which is comparable to the impact estimate. For a similar reason to that outlined above in relation to the overall attendance effect, we therefore, do not interpret this as the causal effect of the policy. Among newly eligible pupils, none of the estimates are statistically significant. Among the ethnicity subgroups, only the difference-in-difference estimate for Black pupils is statistically significant. However, the in-time placebo estimates for this specification reach a maximum of |0.07| in 2015/2016 (see Additional Appendix Figure 45), which is comparable to the impact estimate. We therefore, do not interpret this as the causal effect of the policy. Among the deprivation subgroups, only the difference-in-difference estimate for most deprived quintile

(5) is statistically significant. However, the in-time placebo estimates for this specification reach a maximum of |0.05| in 2016/2017 (see Additional Appendix Figure 141), which is comparable to the impact estimate. We therefore, do not interpret this as the causal effect of the policy. None of the estimates in the sensitivity analyses reported in the last five clusters of coefficients are statistically significant.

Numerical (as opposed to graphical) versions of the results in Figure 6 are available in Additional Appendix Table 106.

Figure 6: Coefficient plot for the primary outcome



Note: The figure shows impact estimates from three types of models (difference-in-difference, triple-difference, within-London difference-in-difference). IDACI=where 5 represents the highest quintile of deprivation and 1 represents the lowest quintile of deprivation. No KS3 Sibling=excludes all pupils who have a sibling in Key Stage 3 (secondary school). No Magic Breakfast=excludes all schools that ever participated in the Magic Breakfast school feeding programme. No 2016=excludes the 2015/2016 academic year. No Pre-2018=excludes the 2015/2016 and 2016/2017 academic year from the sample. FSM Covariate=is based on a specification that includes a control for FSM status.

Figure 7 below shows analogous results to Figure 6 above but for our (secondary) attendance outcome. Looking first at already eligible pupils, the difference-in-difference estimate is statistically significant. However, the in-time placebo test estimates for this specification reach a maximum of |0.075| in 2021/2022 (see Additional Appendix Figure 22), which is comparable to the size of the impact estimate. We therefore, do not interpret this as the causal effect of the policy. Among newly eligible pupils, estimates from all three of the models are statistically significant. The in-time placebo test estimates for the difference-in-difference reach a maximum of |0.06| in 2021/2022 (see Appendix Figure 34), so we do not interpret this as the causal effect of the policy. The in-time placebo tests for the triple-difference estimates reach a maximum of |0.04| in 2022/2023 (see Additional Appendix Figure 37), which is almost as large as the impact estimate, so we do not interpret this as the causal impact of the policy. The in-time placebo tests for the London difference-in-difference estimates also reach a maximum of |0.05| in 2015/2016 (see Additional Appendix Figure 210), which is almost as large as the impact estimate, so we do not interpret this as causal.

Among the ethnicity subgroups, the difference-in-difference estimate for Black pupils is statistically significant. However, the in-time placebo test for this specification reach a maximum of |0.05| in 2022/2023 (see Additional Appendix Figure 46), so we do not interpret this as the causal effect of the policy. Among Asian pupils, estimates from all three of the models are statistically significant. The in-time placebo tests for the difference-in-difference estimates reach a maximum of |0.03| in 2015/2016 (see Additional Appendix Figure 58), so we do not interpret this as the causal effect of the policy. The in-time placebo tests for the triple-difference estimates reach a maximum of |0.075| in 2015/2016 (see Additional Appendix Figure 60), so we do not interpret this as the causal effect of the policy. The in-time placebo tests for the within-London difference-in-difference reach a maximum of |0.05| (see Additional Appendix Figure 198), so we also do not interpret this as causal.

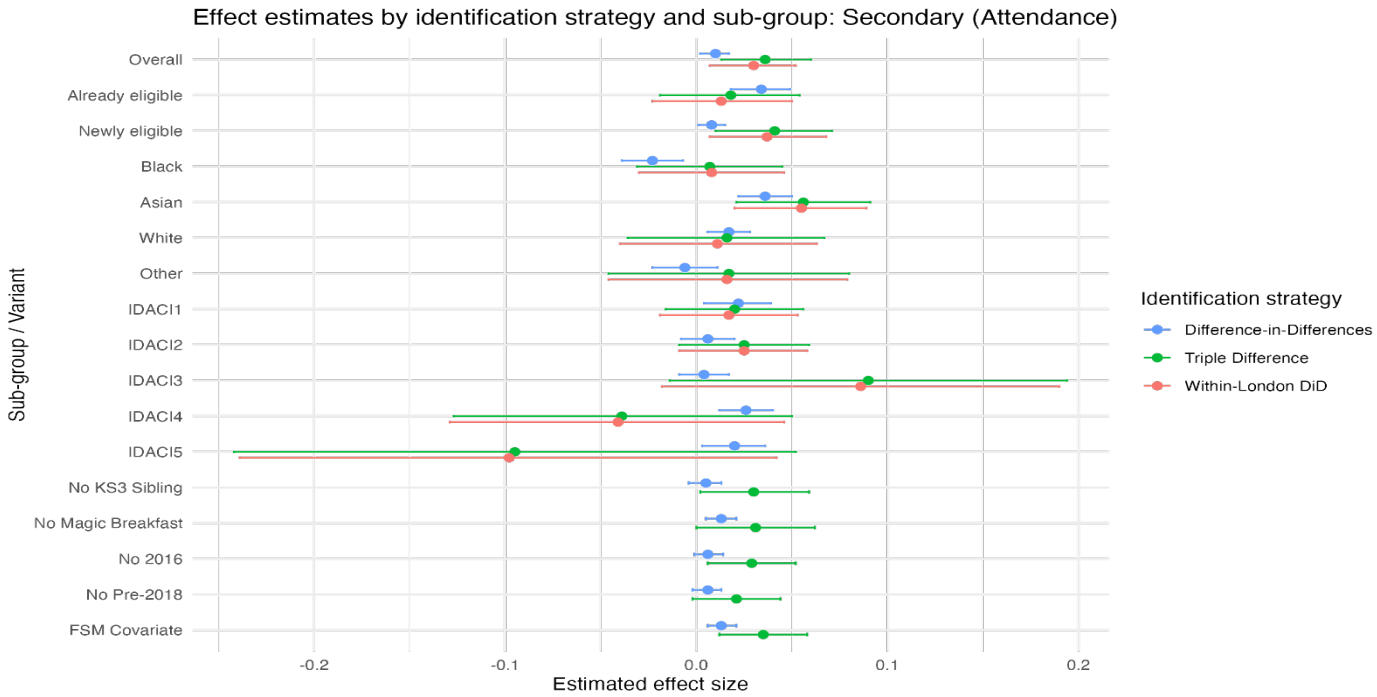
Among White pupils, the estimate from the difference-in-difference model is statistically significant. However, the in-time placebo tests for the difference-in-difference estimates reaches a maximum of |0.05| in 2021/2022 (see Additional Appendix Figure 70), so we do not interpret this as the causal effect of the policy.

Among the deprivation subgroups, only the difference-in-difference estimate for the two most deprived quintiles (4 and 5) are statistically significant. However, the in-time placebo test estimates for IDACI 4 reach a maximum of |0.06| in 2021/2022 (see Additional Appendix Figure 166), so we do not interpret this as a causal effect.

Among the estimates in the sensitivity analyses reported in the last five clusters of coefficients, several are statistically significant. The triple-difference estimate for the model excluding pupils with siblings in Key Stage 3 is statistically significant. However, the in-time placebo test reaches a maximum of |0.05| in 2018/2019 (see Additional Appendix Figure 141), so we do not interpret this as a causal effect. The difference-in-difference estimate for the sample excluding Magic Breakfast schools is statistically significant. However, the in-time placebo test reaches 0.06 in 2021/2022 (see Additional Appendix Figure 166), so we do not interpret this as a causal effect. The triple-difference estimate for the model excluding 2016 is statistically significant. The in-time placebo test reaches a maximum of |0.02| (see Additional Appendix Figure 179), so this may be causally interpretable. However, given how many statistical tests we have run, we would expect at least some statistically significant effects to occur simply by chance, so we are cautious about over-interpreting this finding. Both of the estimates for the model including a control for FSM are statistically significant. However, the in-time placebo tests for these models reach a maximum of |0.06| (Additional Appendix Figure 11) and |0.04| (Additional Appendix Figure 12), so we do not interpret these as causal effects.

Numerical (as opposed to graphical) versions of the results in Figure 7 are available in Additional Appendix Table 107.

Figure 7: Coefficient plot for the secondary outcome



Note: The figure shows impact estimates from three types of models (difference-in-difference, triple-difference, within-London difference-in-difference). IDACI=where 5 represents the highest quintile of deprivation and 1 represents the lowest quintile of deprivation. No KS3 Sibling=excludes all pupils who have a sibling in Key Stage 3 (secondary school). No Magic Breakfast=excludes all schools that ever participated in the Magic Breakfast school feeding programme. No 2016=excludes the 2015/2016 academic year. No Pre-2018=excludes the 2015/2016 and 2016/2017 academic year from the sample. FSM Covariate=is based on a specification that includes a control for FSM status.

IPE results

Section A: Regarding pupils and their families

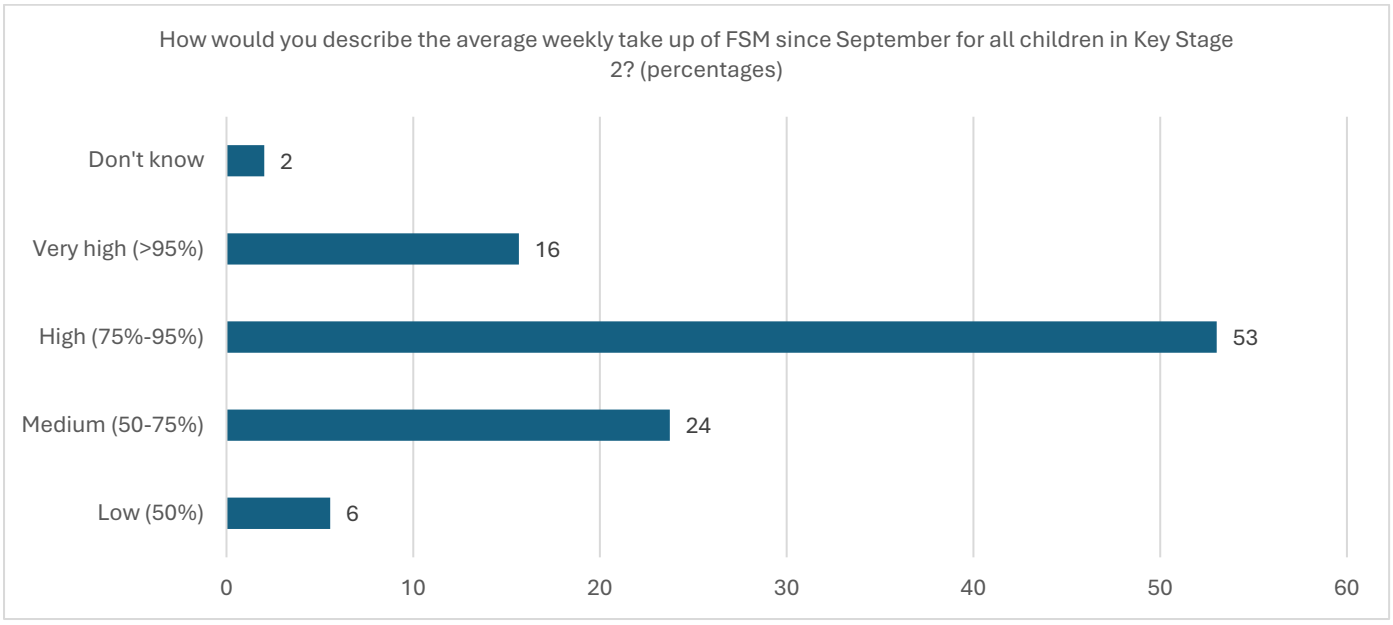
1. What has been the change in uptake of Key Stage 2 school meals as a result of UPFSML?

Uptake is a complex issue, which our evaluation has continually grappled to define and work out how to measure. There are differences between the number of meals ordered, cooked, and taken by children each day, and this is different again from what children actually eat of their meals. There is also variation across each week and across the school calendar, as families dynamically make choices about taking a school meal or not. Where there is an ordering system that allows tracking of meal choices, this data provides a good indication of uptake. Where children are free to choose the meal they eat each day however, chefs might monitor what is eaten by practices such as counting plates as they are served, or simply seeing which meals are left over and which run out, and adjusting this iteratively when the same meals are served again. Within our evaluation, we have drawn on the sample of schools within the Arbor MIS, as well as survey data from schools and from parents, and interview and observational data from case studies, in an attempt to triangulate findings around uptake.

Data from the sample of schools using the Arbor MIS suggest that overall uptake of school meals, for those newly eligible, was 90% in Summer Term 2024, showing a progressive increase from Autumn Term 2023 (87.9%) and Spring Term 2023 (89.3%). When the five London boroughs already delivering UPFSML are removed from the dataset, overall uptake was 88.6%, an increase on 87.7% in Spring Term 2023.

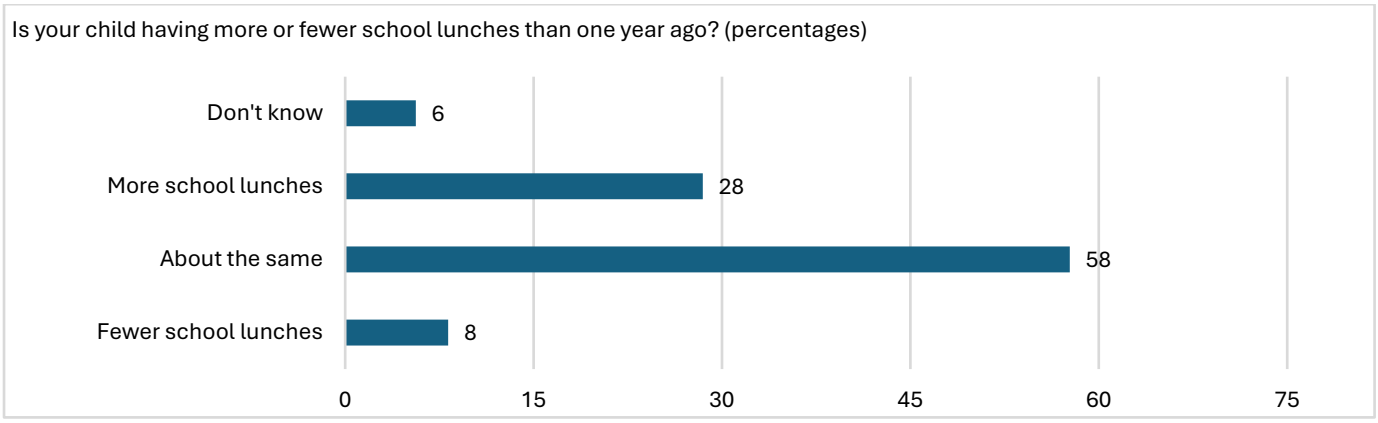
This high uptake is further supported by data from our surveys. Around 94% of respondents to the school survey (n=206) said that they measure take up of school meals for children in Key Stage 2 (4% said 'no' and 1% 'did not know'). Respondents (n=198) indicated the below levels of take up in their schools:

Figure 8: Reported take up of FSM in 2023/2024 from the school survey (n=198)



This is further reflected in the responses to the parent/carer survey. When asked: 'How many school lunches (provided by the school) does your child usually have in a week?' 79% of respondents (n=1,475) indicated that they had a meal every day.

Figure 9: Reported changes in take up of school lunches, 2022/2023 to 2023/2024, from the parent survey (n=1,475)

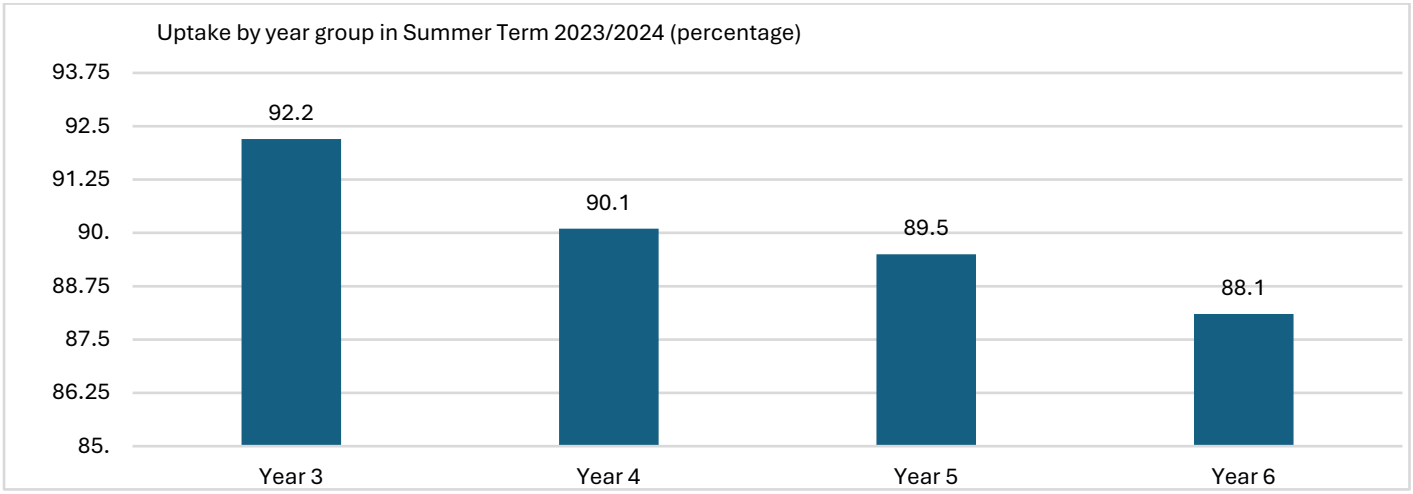


Around 58% of parents (n=1,475) indicated that they were having about the same number of lunches as before the UPFSML policy was introduced, 28% indicated more school lunches and 8% indicated fewer school lunches (Figure 9).

Uptake by different year groups

Arbor MIS data indicates that uptake reduces for older children (across all London boroughs):

Figure 10: Take up of FSM by year group 2023/2024 in the Arbor MIS sample (13% of schools)



Under IPE research question 2, later in this report, we note that the parents of older pupils report them being less happy with the choices of school meals. Our case study data suggest that older children are more able to evaluate and express their dissatisfaction or have developed stronger preferences or a greater understanding of lunch choices.

Take up among those eligible for means-tested FSM

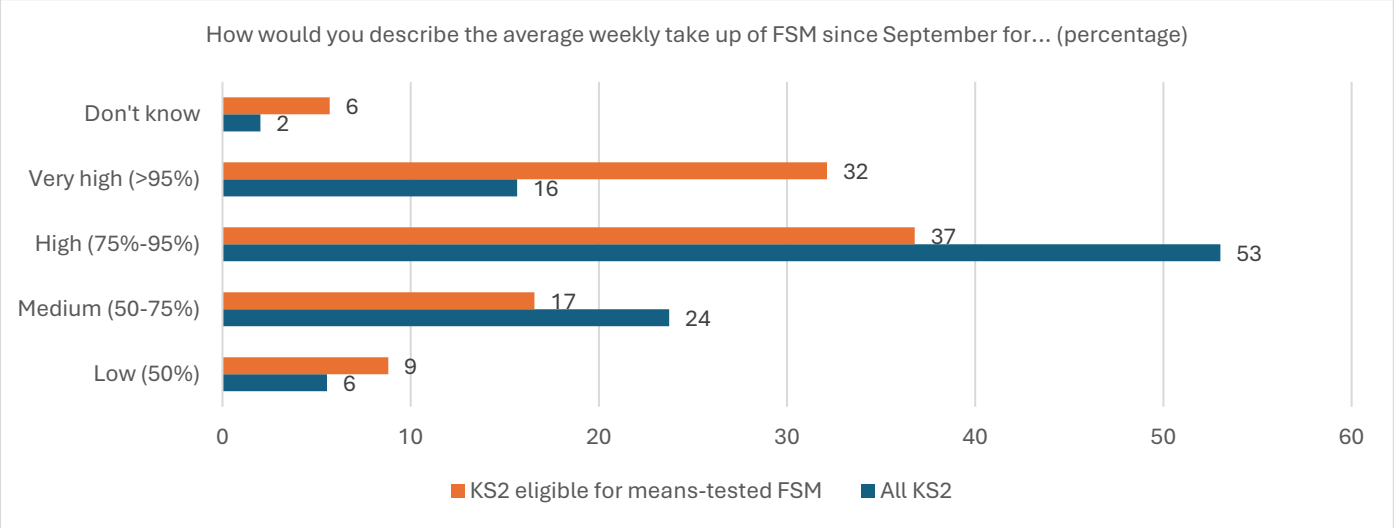
Data from the sample of schools using Arbor MIS shows that meal uptake has increased for those eligible for means-tested FSM. In Autumn Term 2022/2023 meal uptake was 88% among this group, and in Spring Term 2024 uptake was 94%, suggesting an increase in uptake under the policy for those already eligible for FSM (this data includes London boroughs already offering UPFSM).

Excluding the parents referring to Year 3 pupils (who all had FSM in Year 2), 42% of respondents to the parent survey, who were not offered FSM in the previous year, reported having more in the year that the UPFSML policy was introduced. Only 27% of respondents who reported that they were eligible for FSM had more school lunches since the policy change. While this is in line with expectations that those already eligible for FSM were taking them previously, we are cautious to not over-infer from this survey item. Around 9% of those reporting being previously eligible said they had fewer school meals (vs 10%

of those reporting not being eligible). We also note that 508 respondents expressed that they were previously offered FSM, whereas 374 indicated that they were not. This is an unexpectedly high percentage of respondents reporting FSM eligibility and may indicate that the question has been interpreted as referring to meals being offered in general, rather than being about income-based funding eligibility.

Around 94% of respondents to the school survey (n=206[20]) indicated that they measure take up of school meals for children in Key Stage 2 eligible for means-tested FSM (5% said 'no' and 1% 'did not know'). Comparing uptake for those eligible for means-tested FSM with all of Key Stage 2, suggests higher uptake for the former group:

Figure 11: Uptake levels as reported in the school survey (n=208)



Of those who responded to the relevant school survey item (n=208), 66% indicated that there was about the same uptake for those eligible for means-tested FSM in 2023/2024, compared to 2022/2023. Around 31% indicated an increase, 4% a decrease, and 4% did not know. It should be noted that the survey responses are unlikely to be representative of FSM eligibility across London, however.

Our thematic coding of case study and parent interview data suggest that the overall increase in uptake of FSM, and the increased attention to and communication about school meals likely supported the increase in those eligible for means-tested FSM, as it did for all children. We also saw children eating school meals in line with their peers within case studies, suggesting this may have provided a further motivation for uptake among those already eligible.

Dietary requirements

Data from the parent survey suggests that changes in uptake of school meals are not significantly influenced by dietary needs. Around 31% of those whose children have dietary needs of any kind (n=443) said they had more school meals than before the policy change and 28% of those whose children do not have dietary needs (n=1,070). Around 59% of those with dietary needs and 60% of those without had about the same number of school lunches, and 10% of those with and 8% of those without had fewer (9% of those with and 5% of those without dietary needs did not know). These proportions were broadly the same for pupils requiring halal meals (n=208). Similar patterns are found within the data for children who are coeliac/gluten free, dairy intolerant, vegan, vegetarian, or kosher, although sample sizes are too small for meaningful conclusions to be drawn.

[20] Those indicating that they represent an infant school were removed for analysis of items around Key Stage 2 take up of UPFSML.

SEND

Data from the sample of schools using the Arbor MIS system (13% of all schools) suggest that 88.3% of children with SEND took FSM in Summer Term 2023/2024, in comparison to 90.4% of children with no SEND. This data includes the London boroughs already offering UPFSM but excludes children eligible for means-tested FSM. Our qualitative data (reported under IPE research question 2) suggests that SEND pupils were encouraged to take FSM through peer interactions and through enhanced focus on school meal provision following the introduction of the policy.

Uptake by other demographic factors

Only 15% of those responding to our school survey (n=208) indicated that they measure uptake from other pupil characteristics (e.g. ethnicity, SEND, looked after children), and as such we do not have further data around uptake of subgroups. The Arbor MIS data indicates that uptake was higher among Black, Asian, and Minority Ethnic pupils, compared with White pupils, and that uptake was lowest among those with no religion, compared with pupils who declared having a religion. However, these subgroups of the sample of schools within the Arbor MIS dataset are too small to support strong conclusions.

2. What factors are involved in family and Key Stage 2 children's decisions to take up FSM (including suitability of food and dining environment, stigma)?

The considerations in this section primarily focus upon implementation of the policy at the level of individual or groups of schools, by considering the factors involved in families deciding whether to take up FSM or not. These are inherently linked to the choices, needs, and preferences of children in each family. As such, we discuss these factors here, including some, which were investigated under IPE research question 5 (choices, dietary needs, and portion sizes).

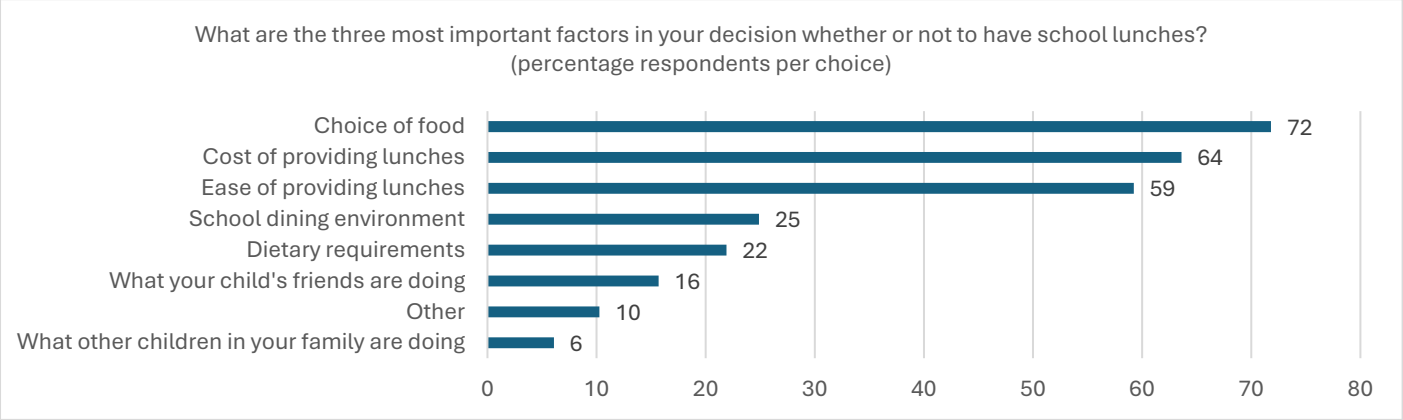
Ease of deciding whether to have FSM or not

Of 1,468 responses to the parent survey, 68% indicated that it was easy to decide whether or not to have school lunches. Around 22% were neutral and 11% said that the decision was difficult. There were no statistically significant differences across year groups around this. Of those reporting that their child had specific dietary requirements (n=483), 55% said that it was easy to decide whether or not to have school lunches, 24% were neutral, 17% said it was difficult, and 5% did not know. Similar percentages were given for vegetarian children (n=66), suggesting that this dietary requirement does not influence difficulty significantly. For children without dietary needs, 70% said it was easy, 21% were neutral, 7% said it was difficult, and 3% did not know. This suggests that the decision to take school lunches is more difficult for some of those with specific dietary requirements. This also seems to be the case for halal requirements, where 53% of respondents (n=232) said that the decision was easy, 25% were neutral, 17% said difficult, and 5% did not know. The sample for other dietary requirements was too small to draw meaningful conclusions.

In terms of what influences the decision to have a school meal or not, parents responding to the survey (n=1,551) indicated the importance of choice of food, as well as cost and ease of providing lunches:

In support of the findings below, 42% of 220 respondents indicating halal requirements, said that dietary needs was an important consideration, as opposed to 22% of the overall respondents (n=1,551). Vegetarian requirements did not lead respondents to give higher consideration to dietary needs, however. All other subgroup samples around dietary requirements were too small to make inferences.

Figure 12: Influences on decision to have FSM, from the parent survey (n=1,551)



Cost of providing school lunches

As indicated in relation to IPE research question 1, take up of free school lunches increased slightly for those who are already eligible for FSM. In contrast, there was a perception among school leaders who serve communities in which there are wealthier families that the policy has not influenced decisions of those families as to whether or not to provide packed lunches.

> *Our context is the parents are, on the whole, quite wealthy, so they didn't need free school meals. So we wondered if they would just stay with packed lunches because they can afford to carry on doing that. But we've had a bit of an uptake, but not a lot.* (Headteacher, Case study interview)

> *If parents can afford to make a packed lunch, then the vast majority of them will provide a packed lunch. So, I think people who are having school lunch for us are either children who have some challenges financially or just from an organisation point of view, the parents, it's more conducive to their lifestyle to enable the children to have a school dinner because they don't have to create a packed lunch.* (Headteacher, Case study interview)

The latter of the above quotes speaks to what we find across our dataset, that although cost is a factor in considering whether to have FSM or not, it is not the most important factor for all families. While families from a broad range of financial circumstances took up FSM, it is difficult to draw strong conclusions around the links between socio-economic status and uptake, because it was not appropriate or ethically sound to ask detailed questions around finances during our case study focus groups, parent interviews, or in the parent survey. However, from analysis of the data from all these sources, as well as the perceptions of headteachers, teachers, and catering staff, we believe that the policy has been most significant financially for those families who were not eligible for FSM, but were nevertheless struggling with the additional financial burden of providing packed lunches or paying for school meals. This is exemplified by a quote from a headteacher who says:

> *Arguably a significant percentage of our parents don't need to save £8 a week on meals, but others do…I think that we're sitting around 12% but likely to fall below 10% for free school meals in terms of Pupil Premium and we have quite a lot of working poor though above that. So our kind of that 'grey band' of people that are employed. And so really if you are working in London and you are working full-time or a household income of £16,000 or below is very unlikely, we've got people that work three cleaning jobs and they're earning minimum wage, but they're still not qualifying for free school meals because of it.* (Headteacher, Case study interview)

We discuss this further in relation to household financial security below (IPE research question 3). Families make decisions about take up of school meals through consideration of choice and preferences, nutrition, specific dietary needs, desire for children to eat with their peers, and the stress of sourcing and preparing packed lunches. While financial considerations are pivotal for some families within this, we suggest that the relatively low costs of school meals prior to the policy introduction means that financial considerations are less important than other factors for the majority. In interviews (during

case studies and online), parents who reported significant financial benefit often also reported previous hardship. For example:

> *Previously I've not been eligible. I'm a single parent and money has been tight. So, it's just been one less…it's getting better now, but it's been one less thing to worry about.* (Parent, Online interview)

> *It's one less thing to worry about to remember to pay for my son's lunches. And also, I said when previously things, finances, were quite tight it would just be another financial thing to worry about.* (Parent, Online interview)

The data from headteachers, teachers, and parents, in interview and survey, combined with consideration of the relatively low cost of school lunches previously, suggests to us that the financial benefits of the policy were most keenly felt by families whose finances were above the threshold for means-tested FSM eligibility, but below being able to easily afford school meals or nutritious packed lunches. Those who reported that they could afford school meals were still advocates of the policy for other families within their community, however. We recognise that while we attempted to gain representative samples, we did not employ methods to specifically engage with families and communities who are most likely to benefit the most from the financial advantages of the policy.

Choice of food and children's agency

When asked: 'Have you modified the school lunch choices in response to the Mayor of London's UPFSML policy?', 82% of respondents to the school survey (n=210) indicated that they have not made any changes, 7% indicated that they give children more choices, and 1% said that they offer fewer choices. Around 9% said that they have introduced other changes such as 'grab and go' sandwich or salad options, reducing dessert options, but keeping other options, or even disallowing packed lunches.

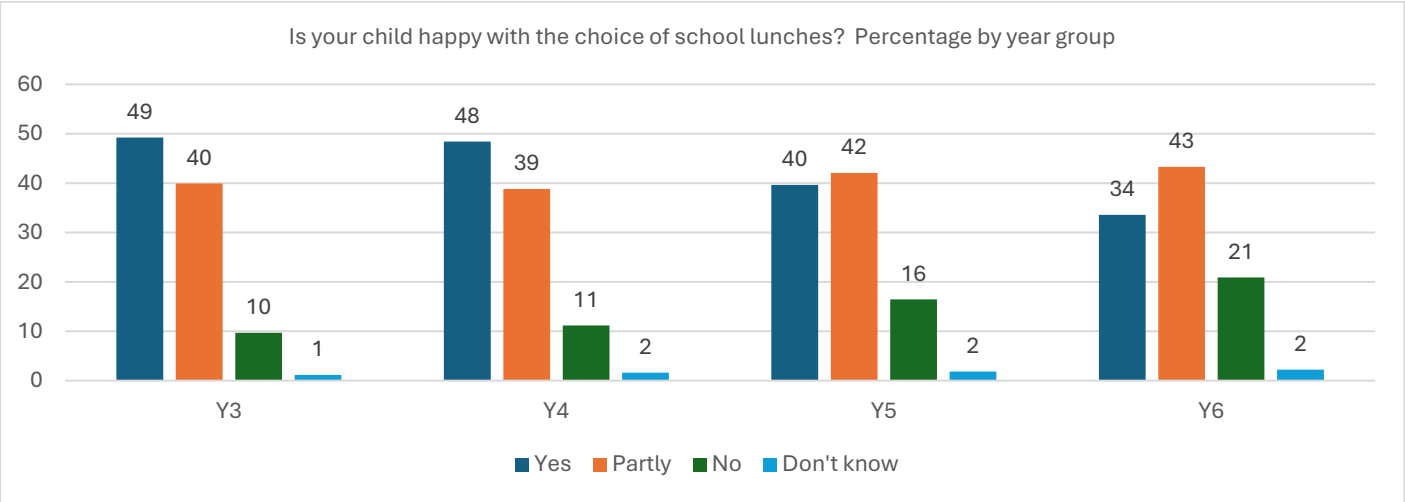
In order to contextualise our findings, it is helpful to understand the complexity of how choices are determined and the variation in this across the schools we engaged with. There are broadly three stages in determining what children eat: i) menu planning; ii) ordering and preparation of the meals; and iii) what children then take on the day. Menus are usually determined by the catering company (or in-house staff). However, we saw variety in how far this is in consultation with headteachers, parents, and children. Caterers often have parental engagement meetings where families are able to try foods, and there are various mechanisms for feedback and dialogue between caterers and families: some caterers engage directly, and in other cases, contact with families is mediated through school leaders. Pupil voice includes representatives of the school, within a pupil council or through class representatives, also being involved in menu planning and feedback to caterers. The second stage of the process is determining how many of each meal to cook each day, based on the menu. In some schools, this is determined by chefs through their judgement and iterations of a menu. In other schools, children choose their meal at morning registration, so that chefs know how much of each to cook. In many schools, parents select with their children what they want to eat through an online system. This choice and input from parents varies in frequency, from termly to daily ordering of meals. In some schools, the selection of meals by families provides an indication to chefs of how much to cook of each item, but children are still able to choose something different on the day. In many schools however, the meal choices are then given to children exactly as ordered each day.

Around 55% of respondents to the school survey (n=198) indicated that they monitor pupil meal preferences, whereas 39% did not (6% did not know). Around 86% of respondents (n=199) said that they monitor whether or not children enjoy eating the school meals (they are tasty), compared to 9% who said that they do not (5% did not know). Our case study data suggest that catering companies and school chefs monitor in nuanced ways, which may not be fully represented in our survey data. For example, as a new menu is introduced, caterers often assess the take up of new choices and modify the number of meals cooked or even the ingredients of those meals. When a menu repeats (e.g. on a fortnightly rotation), the choices are adjusted.

Pupil choice in whether to have a school meal is important, and parents make decisions on the basis of their child's preferences as well as needs. Of 1,553 responses to the survey item asking how far their child is involved in deciding whether or not to have school lunches, 758 indicated 'a lot', 503 'partly', and 242 'not at all' (50 said 'don't know').

Responses[21] to the item in the parent survey (n=763) indicated that 55% of children referred to were involved in choosing what the lunch is 'a lot' and 32% are 'partly' involved. Only 6% of respondents indicated that their child was 'not at all' involved in the decision and another 6% did not know. Of those responding to the question whether their child is happy with the choice of school lunches (n=712), 45% said 'yes', 41% said 'partly', and only 13% said 'no'. There is a trend towards older children expressing less satisfaction with the choice of school lunches.

Figure 13: Happiness with choices, by year group, from the parent survey (n=712)



This corresponds to the reduced uptake in FSM for older year groups seen within the Arbor MIS data (see IPE research question 1).

This may be to do with the capacity of older children to evaluate and express their dissatisfaction, or them having stronger preferences, or greater understanding of lunch choices. This suggestion is supported by case study focus groups, in which older pupils were more vocal in expressing preferences. Parents of older children also more frequently indicated that their child made their own choices and, in some cases, were responsible for packing their own lunch if they wanted one from home.

There was a perception from some parents that there is less choice in smaller schools:

> *Think probably in bigger schools where there is three form entry you might get more choice. But I think probably because this school is fairly small I suspect they only do a hot dinner or a jacket or pasta and jacket or pasta and grab and go bags, I don't think there'll be that much choice. But I think that might be down to more the size of the school.* (Parent, Online interview)

Some children in case studies reported that certain meal choices occasionally ran out if they were served last. This also sometimes meant that, for example, halal food options were not available for those being served at the end of lunchtime. We also had report in our case study data that food was cold by the time children were served it. There is also a small difference in reports of children with dietary needs being happy with the choices, compared to those without.

[21] In order to ensure that the survey was not too long, respondents to the parent survey were presented with either an item about pupil involvement in choice, or about whether their child was happy with the choices.

Our parent interview data provides a richer picture of the importance of choice. Parents who did provide packed lunches often referred to their children as 'fussy' or 'picky' eaters. For example:

> *My Year 6 son is a little bit fussy about food, so he would only really eat pizzas or fish fingers, and then the rest of the week I would send in a packed lunch. So, in that respect, I know the variety is good and they try to make it balanced and wholesome for them, but when you have a child, maybe such as mine—and I doubt he's the only one—it can be, you know…* (Parent, Online interview)

> *I guess when you have a child that is quite stubborn about trying different foods, you know, having that variety on offer on the menu, I still couldn't persuade him to try something.* (Parent, Online interview)

Such attention to the preferences of children goes hand in hand with care for their health, and parents (in interviews and focus groups) expressed that where they perceived their child to not be eating a balanced diet at school, they were more willing to provide packed lunches. However, there is also evidence within interview and focus group data, that being exposed to different foods in school changes what children are happy to eat over time. For example:

> *I feel exceptionally positive that it really has made a difference. I feel like they eat so many different meals just, you know, just having those different flavours makes them absolutely suddenly have these, you know, a wider range of foods. I think that's quite a game changer.* (Parent, Online interview)

> *I like that they do have different options because before my daughter would just eat certain things. So it kind of opened up her palate and even for my son, the little one, it's opened up his palate to trying…So it's good because it allows the children to choose themselves, not what I would choose for them, but different days they might factor different things…some days they might not fancy cheese or this and that, but some days they might.* (Parent, Online interview)

This quote shows the links that were made by several parents between the capacity of children to choose their meal at the point that it is served, and their willingness to try new foods. As well as children being able to choose what they like on the day, our interview and case study observation data suggest that children are influenced by what their peers are eating, and that this may encourage them to eat different foods. For example, one parent said:

> *It may persuade a child to try different things when he sees his friends eating them. You know, he thinks, 'oh, that looks all right. Maybe I'll try that' and then he might say to me, 'Oh Mum, I saw this today. I might like to try that.' So in that respect. I think it's a good thing for them to see children eating school meals like, you know, spaghetti [b]olognese and, you know, jacket potato, etcetera. So it might encourage him then to maybe try if he sees his friends eating it.* (Parent, Online interview)

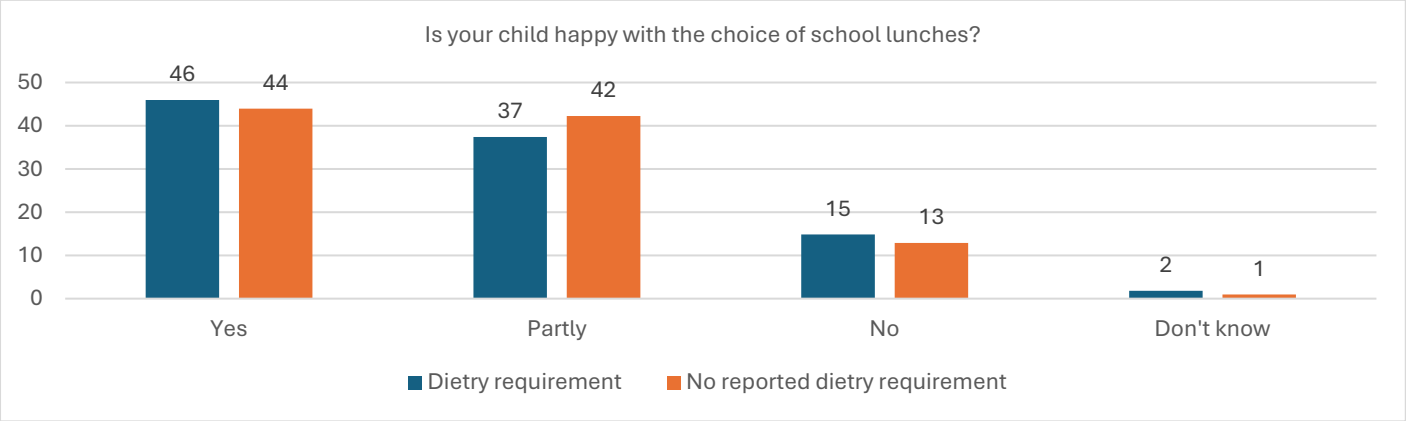
This peer influence was also referenced in the parent survey responses above, where 16% of respondents indicated it as one of the three most important factors in choosing whether or not to have FSM. During observations of lunchtimes, we also saw catering staff encouraging pupils to try foods at the point of serving them, for example, by putting just a small amount of a different food on a tray/plate for a child to try. Our data includes reference to pupils trying foods such as beetroot and fresh salads and several references to families eating new foods that have been liked by children at school.

In relating our findings back to the different ways that menus are determined, meals ordered and then chosen (discussed earlier in this section), we suggest that there are benefits in children being able to choose their meal at the point of service, because this encourages them to try new foods, eat what their peers are eating, and also respond to their preferences at the point that they see the food. We recognise that cost and managing what is cooked are constraints in this for some schools. While considerations of food waste from cooking unwanted meals may also play a role, this may also be offset by children eating more of foods that they have chosen on the day (See IPE research question 8 around environmental impacts).

Specific dietary requirements

Our parent survey data (n=1,475) indicated that 29% of respondents had children with dietary needs. Figure 14 indicates the number of children with each dietary requirement, represented within the survey sample. Note that some children have more than one dietary requirement.

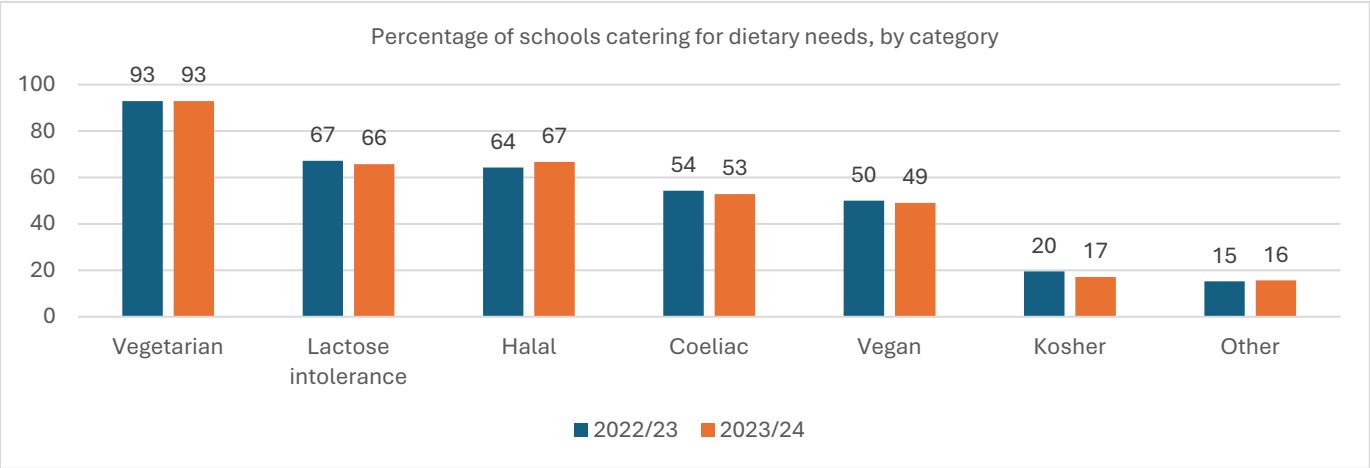
Figure 14: Happiness with choices, by dietary requirement, from the parent survey (n=750)



Of those who reported that their children had dietary needs, 67% said that their child's dietary requirements were met by school lunches, 19% said that they were partly met, 9% said that they were not, and 5% that they did not know.

Responses to the school survey reported that the percentages catering for dietary needs were broadly stable across the years prior to and when the policy was introduced. Those mentioning 'other' dietary needs included catering for peanut and egg allergies and diabetic pupils. Although the responses give an indication of the needs most commonly catered for, the sample is unlikely to be representative of all schools in London (e.g. schools serving Jewish communities are likely under-represented):

Figure 15: Percentage schools catering for dietary needs before and during policy implementation, from the school survey (n=210)



Case study and parent interview data shows that schools often manage specific dietary requirements by having a list of children who require specific meals, often accompanied by photos of those children at the point of serving the food. Some children wore coloured lanyards to indicate a specific dietary requirement. We saw cases of schools requiring medical information prior to children being provided with specialised meals, and this meaning that children were provided with a packed lunch by their parents prior to this evidence being provided. This causes frustration for a small number of parents we spoke to and was particularly challenging in cases where medical needs (such as gluten or egg intolerance) were suspected but not yet medically diagnosed. There was also evidence within our data that children take time to learn, which options were suitable for them, for example, in understanding which foods are vegan. Parents were able to support this learning where menus were provided in advance and were able to talk to their children about choices.

Several case study schools were a 'nut free school' to accommodate allergies. However, some schools report that it is difficult to cater for all dietary needs, and that the introduction of UPFSML has increased the number of requests for meals, which accommodate specific needs. For example:

> *Since the introduction of UPFSMs we have had several requests for more food choices, vegan, Jain diets, gluten free, etc., but we do not have the space, capacity or staff to prepare these additional options for the children. Parents are disappointed that they are unable to get the meal choice they would like for their child and may then have to provide a packed lunch.* (Respondent, School survey)

Although we do not have sufficient representation to consider families experiences of provision for kosher and other religious requirements for meals, case study and survey data give us some understanding of provision of halal meals. Where schools serve a community with a significant proportion of Muslim pupils, schools either ensure that all meat provided is halal or, less frequently, they prepare both halal and non-halal meat options. We found that a small number of parents (who were not Muslim) objected to halal being the only meat option, often due to their perceptions around animal welfare. In other schools, we found that Muslim pupils were only eating the vegetarian or vegan options, as there was no halal meat available. This has an influence on the choices available to children but also potentially to the child's sense of belonging in the school:

> *The headteacher explained to us that there is no pork in the meal but also there is no [h]alal option but there is vegan option. But during the three years, he (my son) has suffered when the other children are eating chicken nuggets or the meal with chicken or with meat. He feels upset. So at home I try to make more meals that he's seen at school, for example chicken nuggets. I didn't used to cook it but for him now I've started to cook [halal] chicken nuggets at home for him.* (Parent, Online interview)

Supporting SEND

The policy innovation provided additional funding to support provision of meals for pupils with SEND. When asked to rate how their school's lunchtime support for children with SEND/sensory processing needs, 49% of respondents to the school survey (n=210) said 'very good', 33% said 'good', 12% said 'okay', 5% said 'could be better', 0.5% said 'bad', and 1% did not know.

Our case study and online parent interviews suggested that schools were, on the whole, focused on ensuring that SEND pupils could take FSM, but recognises that uptake was still lower. Sensory and behavioural needs were often suggested as one reason for this. In case study schools where they had specialist provision, we found that the universal offer of FSM had heightened attention to how SEND pupils engaged with lunchtime norms and practices.

> *In our specialist schools provision for children with autism, very often there can be a quite rigid diet because of sensory needs and so on. But it is noticeable how, in our Key Stage 2 provision, more children have been really proud of trying new things.* (Headteacher, Case study interview)

This was seen to be educationally beneficial also:

> *They [SEND pupils] always would be sitting in the canteen but they would now be going up to the hot food counter, as opposed to just sitting on the table and getting out their packed lunch. So essentially, that means that they're also having further interactions socially with their peers. And also, quite important functional interactions with the lunch staff who serve them, who they wouldn't have always necessarily had those interactions with. And those kinds of functional interactions are really important for those children, in terms of their development and actually their curriculum.* (Headteacher, Case study interview)

In schools without specialist provision, teaching assistants and lunchtime supervisors often worked together to support those with SEND. While it was reported that before the policy introduction, those pupils with sensory needs would often

stick to the familiarity of packed lunches, we found that the UPFSML policy has presented new opportunities to support the development and learning of those children:

> *It's helped us to identify the children that we've had some concerns about with regards to physical development, etc. So it's enabled us to see whether it's something to do with sensory-based problems like the texture of food or having sources on food. Quite a few of our children, I would say a handful of our children have been identified as being very specific with these textures. So what we've done as a collective is we have tried to encourage them to have different foods. We've tried to encourage the parents as well to order different types of foods, if there's a specific food that the child prefers to have.* (SEND Co-ordinator, Case study interview)

In some schools we visited, we found that catering staff made specific meals for SEND pupils:

> *We have a couple of SEND children who have really, really specific needs around food and the sensory experience of different types of food and so they'll have an individual plate made, which may be in line with what is on the general menu or it may be something different, but that is always communicated with the parent as well.* (Headteacher, Case study interview)

SEND pupils were included in other ways too, by both staff and pupils:

> *A few children that find it difficult, and you might see them with their ear defenders, but they still come in, and even the children that have certain different needs, there are probably about 20 of them that have packed lunch, because of sensory issues or behaviour, whatever it is, even they come in and have lunch in here. So, it's all, you know, inclusive.* (Teacher, Case study focus group)

> *I have noticed a couple who may be like ASD [Autism Spectrum Disorder], in some sensory way and may be slower with eating. Because they're sat like you're saying with the hot dinner people in that table, I've often seen children finish and then wait for their friends just because they might be a tad bit slower. That has definitely helped.* (Teacher, Case study focus group)

Culturally appropriate meals

The national school food standards require all schools to include provision for culturally appropriate meals. Around 73% of respondents to the school survey (n=195) indicated that they monitor whether meals are culturally appropriate, whereas 19% said that they did not (8% did not know).

Data from interviews and case studies suggests nuance considerations around culturally appropriate meals, befitting of the diverse communities of most London primary schools. There was some perception that some families still prefer to take meals from home:

> *I think there's a cultural thing, especially children who are EAL, they tend to still like to have their own food from home because of…it gives them that link to cultural background and what have you.* (Teacher, Case study focus group)

Some parents expressed that foods, which originate from specific cultural backgrounds, were unlikely to taste the same in school as they do at home:

> *They will eat things like curry at home, but they don't even want to try the curry at school.* (Parent, Online interview)

This may be due to the processes of cooking these foods compared to those available in large-scale catering in school kitchens, but also to do with the availability and cost of ingredients. We had several children tell us that they prefer the food at home and relate this to their cultural traditions. However, we did find cases where children preferred the food at school:

> *Actually, sometimes he comes home, which is a bit weird for us because we come from Italy, so you know how the Italian cuisine is seen and we eat Italian at home and because he gets used to eating at school sometimes he says, 'Oh, I prefer how the school does this compared to how you do that at home.' Which we think 'well no that's impossible!'* (Parent, Online interview)

The relationship between what children regularly eat at home and what they eat at school is not straightforward, and we advocate recognising that a child's 'culture' relates to both settings. For example, we also found a view among both schools and parents, that it was good that children were eating foods that are more in keeping with traditional British school dinners.

> *It is good for them to eat more British food, and be part of the culture, because we don't cook things like that at home*. (Parent, Case study interview)

> *For some of the children, even coming from different ethnic groups, they may not know this type of food, they're coming to the country, or you know, like maybe they are Polish…you know, kids obviously get used to it, to different types of food, so I think it's always a really great opportunity to sit down with the friends and have a lunch and see, if they don't like it, they don't like it, absolutely fine, but yes, I think it's great for them*. (Headteacher, Case study interview)

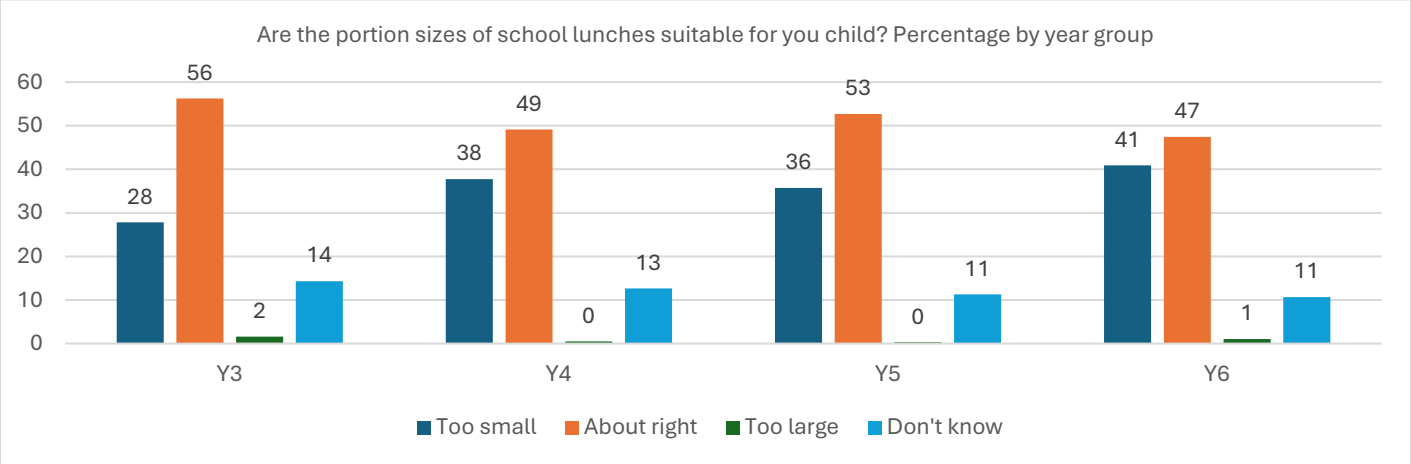
The majority of our case study schools had special 'themed meal days' within the calendar, for example, around Diwali or Christmas, St Patrick's Day, Halloween, or a Mexican themed day. These days encourage children to try different cuisines also.

Portion size

A majority (51%) of overall respondents to the parent survey (n=1,475) indicated that portion sizes were 'about right' for their child, but a large minority (35%) indicated that they were too small. Only 0.9% of respondents said they were too large, while 13% did not know. There were no notable differences for children with dietary requirements compared to those without.

There was a trend in responses towards parents of older pupils indicating that portion sizes were too small.

Figure 16: Report of appropriate portion size by year group, from the parent survey (n=1,475)



Case study data suggest that in many schools, younger children are served first and then lunchtime proceeds through the year groups. This means that Year 5 and Year 6 pupils are served later, and they report that they 'get what is left'. Some schools alternate the order in which year groups are served, however (with Reception still being fed first), and some case

study schools had changed this within the year evaluated. We also note that year groups, which are served later sometimes got 'seconds' to accommodate the fact that, on average, older year groups consume more food. It is of course true that some younger pupils eat more than their older peers. Catering companies often give guidance to those serving meals around portion size. However, chefs and serving staff in some schools adjust portion sizes as they serve older children, and in some cases even know the appetites of individual pupils or ask them how hungry they are at the point of service. The prevalence of salad bars and additional items (such as bread rolls) was also seen as a strategy to accommodate variation in desired portion size for each child, and on each day.

A related influence on whether children eat enough food at lunchtime is the interrelation of mealtimes with playtime. While we report on the overall time to eat meals later in the report (under IPE research question 5), we saw that some children eat as quickly as possible because they wish to 'go out to play'. Lunchtime supervisors deployed various strategies in recognition of this, for example, by only allowing children to leave when they have eaten a good proportion of the served meal, or by encouraging children to eat more as they circulate in the dining area. Some parents saw this as an important part of the school meals provision. For example:

> *A lot of the times a lot of kids, they don't eat their packed lunch properly because they don't want to miss out on their play. That's the biggest problem. So then when they're coming back and then it's half not eaten, then it is upsetting and it's worrying because they're not eating properly. Whereas you know that when they're in the canteen and they've got dinner ladies, they're watching you and they make sure you are eating before you leave. So, that's a relief as well.* (Parent, Online interview)

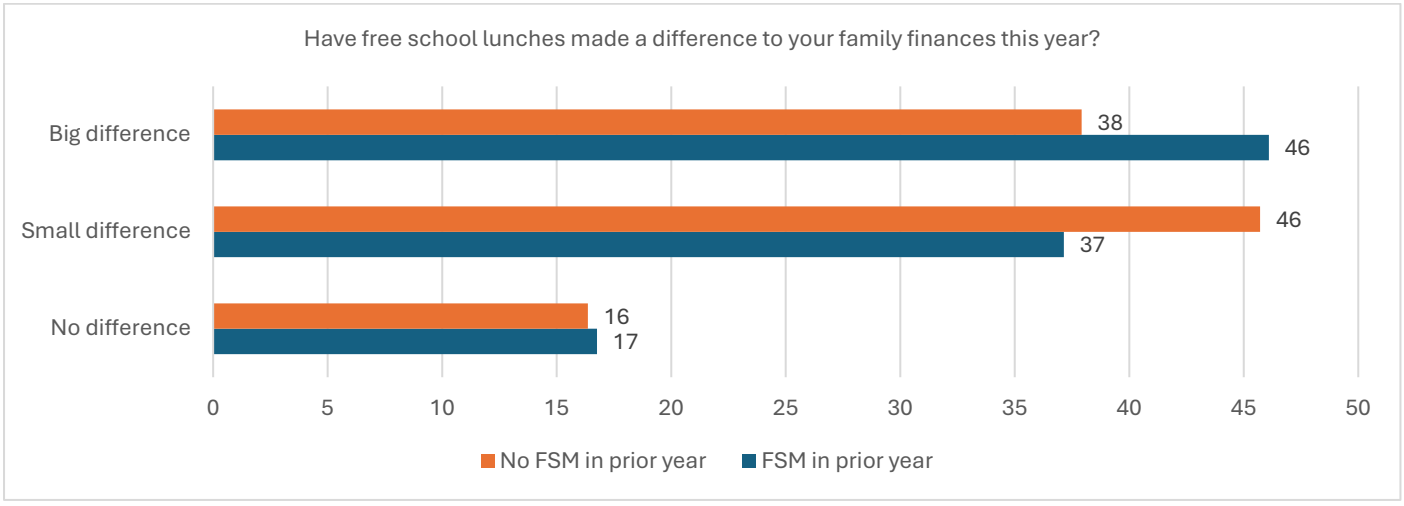
One of our case study schools had separated lunchtime from playtime, providing half an hour for each. This emphasised the importance of lunch and eating together.

3. What are the influences of UPFSML as perceived by parents, carers, and pupils?

a. On household financial stability (including workplace absence)

When asked: 'Have free school lunches made a difference to your family finances this year?' 80% of parents (n=1,475) said that it had made a difference, with 41% of parents agreeing that it made a 'big difference', and a further 39% that it made a 'small difference'. Around 17% said it made 'no difference' and 2% did not know. Those that reported having been offered FSM in the previous year (and excluding Year 3), more frequently reported that the policy had made a big difference rather than a small difference or no difference.

Figure 17: Report of influence on family finances, by reported prior eligibility for FSM, from the parent survey (n=1,475)



As reported earlier, however (in relation to uptake), we are not confident around the self-report of means-tested FSM eligibility from respondents of the parent survey. While this sample does likely contain those eligible for means-tested FSM,

the larger than expected size of the subgroup suggests that some respondents may have misinterpreted the question, reporting that they were offered FSM in the prior year when they were not.

Financial benefits were reported by all of the parents we interviewed (in online interviews and case studies):

> *It's been very helpful. I've not had to think about the extra cost for the school meals.* (Parent, Online interview)

> *We don't have to spend that money at school. Maybe if you want to say the price, maybe £50 per month maybe. Now we are using that money for other things.* (Parent, Online interview)

The significance of the saving is, of course, relative to a family's financial situation, however:

> *It's not something that would make any real difference to us in, in day-to-day finances. At the moment we are saving the equivalent of probably about £5 per day. So, you know that's not nothing, but it's not significant either.* (Parent, Online interview)

Some parents we spoke to expressed that they would be willing to pay for FSM, because they feel they can afford them. Yet, they also expressed the importance of the policy for other families and as such were in favour of the policy overall:

> *I'd be more than happy to pay something because it's important to me that the kids are well fed and it's important that my children have enough to eat but it's important to me also that school dinners remain free and the Universal Credit and the free school meals, I don't know how low the boundary is but there's still going to be families that could really do with the help.* (Parent, Online interview)

Teachers were also in favour of the policy, recognising the financial needs of some families, but also the benefits of a universal offer for families who might not be otherwise eligible for FSM, or have the language or understanding to access it:

> *I remember I had some children, which I taught the whole family, they used to say that they 'fast once a week [because they couldn't afford meals every day].'* (Teacher, Case study interview)

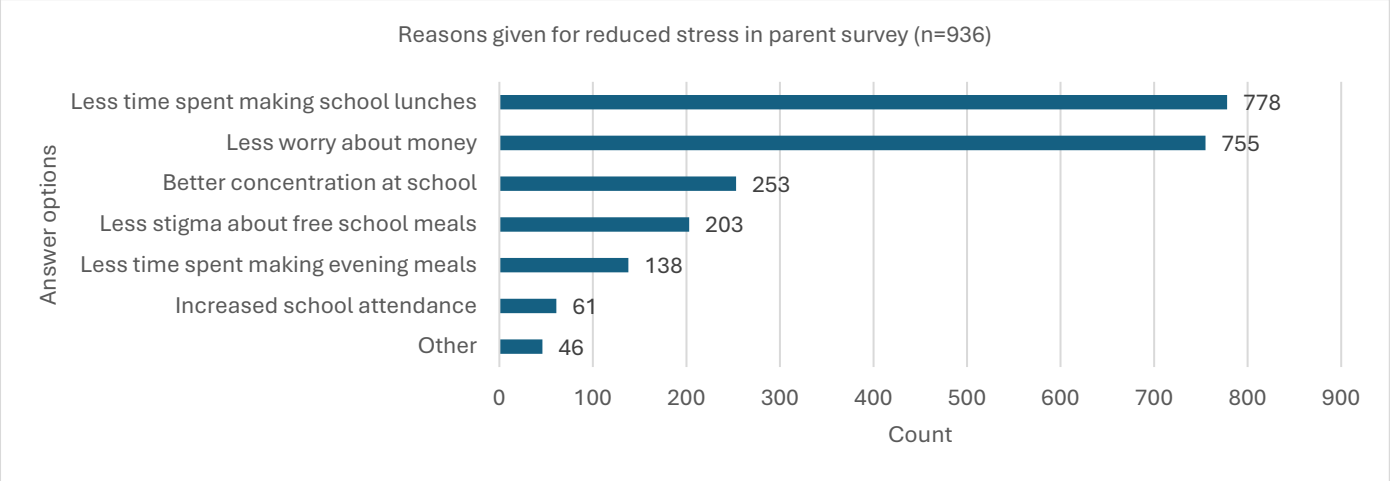
> *We have high mobility so with our new parents…I mean, we had a delightful family, three children, they were direct entrance from Uganda. And the father just could not believe that the free school meals, the children were given a free lunch. He was just bowled over. And a lot of our parents, they don't seem to understand that, but also prior to it was rolled out, a lot of our new parents, because they were asylum seekers and so on and so forth, they assumed they were automatically entitled to it whereas we had to explain, 'No, if your child is under seven.' So, I just think it's easy. It's just easy.* (Teacher, Case study focus group)

The Theory of Change suggests that reduced pupil absence might result in reduced parental work absence and therefore, also have an impact on family financial security. To assess this within the IPE, we asked parents during online interviews whether the policy had influenced their working lives, and none of the respondents considered this to be the case. The number of interviews is incredibly small relative to the number of working parents of primary-aged children in London, so this lack of evidence should not be read as indicating that this is not an influence on some families.

b. On family stress, mental health, and well-being (including stigma and self-perception of FSM)

When asked: 'Is family life more or less stressful this year because of free school lunches?' 64% of parents (n=1,474) indicated that it is less stressful, 30% said about the same, and only 3% said more stressful (4% said 'don't know'). There were no significant differences of report by year group, dietary requirement, or report of previously having had FSM. The reasons for less stress are indicated in Figure 18 below (n=936).

Figure 18: Reported reasons for reduced stress, from parents indicating that family life is now less stressful (n=936)



Text responses in the parent survey additionally referred to reduced stress from knowing that their child has a warm, balanced and/or nutritious meal and that the meals are varied. There was also mention of reduced time and stress in buying food for school lunches, in discussing with the child whether they should have a school lunch, and from seeing that their packed lunch is brought home partially uneaten. There was also mention of not needing to add money to school finance systems to pay for lunches.

Within the 45 (3% of overall) responses indicating that FSM makes lunch more stressful, poor quality accounted for 64% of these, 26% said that lunches were unsuitable, 29% said that there were arguments about school lunches, and 4% said that lunches resulted in increased school absence (31% indicated another reason). Text responses mentioned portion size and food quality, or that funding should be used in other ways. A further respondent expresses stress in consideration of the policy being taken away. In line with other findings in this report, we suggest that frequent online ordering systems are less likely to achieve the aims of the policy, compared to pupils being able to choose meals themselves at the point of service. These systems create stress as parents need to remember to place orders and sometimes have fraught conversations with their children around what should be ordered.

Increased parent well-being from UPFSML

Several parents expressed in interviews (both within the online interviews and school-based focus groups) that the ease of not providing packed lunches was a key factor in the decision to take up the offer of FSM. This was often also linked to the reassurance that children had a hot nutritious meal each day, as well as reduced cost. Additionally, parents spoke about the 'mental load' of having to consider packed lunches. For example:

> *The mental load of sort of thinking about what to include in the packed lunch and, you know, variety and balance and stuff, that stress is taken away completely because of the free school meals.* (Parent, Online interview)

> *It was one thing off my list, not having to think about, you know, packing school lunch, making things that he will like, making sure he's getting a balanced meal*. (Parent, Online interview)

This appeared to be an influence even when children were not taking FSM every day.

> *Even though my oldest don't really use it, it's nice to have as an option for when she does decide to eat something she likes on certain days. So it is definitely handy. I'm not going to lie. That is very, very handy and it's been less stress having to think about every day making packed lunch.* (Parent, Online interview)

Parents also expressed the advantages of not needing to buy school lunch ingredients so regularly, or when items ran out, meaning it was easier to plan their weekly food purchases. There was also a sense in talking to some parents, that they felt that the reduction in conversations and thoughts around lunches allowed them to simply be more present:

> *I'm more relaxed because I don't think about preparing any food or thinking about what we'll eat. Now I'm more confident, I'm more comfortable for him.* (Parent, Online interview)

Another influence of not making packed lunches, which parents mentioned was the freeing up of time in the evening before or each morning. This is also true where the child themselves was involved in preparing lunch:

> *My son's got into the routine of being more involved in his lunch so he would sort of make his roll or make his lunch the evening before, but I would also have to prompt him and help him. So it definitely frees up some time that we don't have to do that anymore. We can spend time talking or doing something else.* (Parent, Online interview)

And especially true where parents were trying to provide warm lunches from home:

> *We were like, 'No, it's not going to be crisps. It's not a picnic school dinner, it's food. We'll make you a hot dinner, you take it in the Thermos or you'll have some pasta or whatever. It's not going to be the fun lunches we do when we have a day out.' But yes, that was just an extra level of coordinating at home, have we got enough food in the freezer, have I made enough curry this week? Have I made enough that we can easily…it's just a thing to do in the morning, isn't it, heat up the food, put it on the hob and off you go. But it's just one more thing to have to do.* (Parent, Online interview)

6%

c. On child and family nutrition (including school meal quality, family eating habits)

A majority (58%) of respondents to the parent survey (n=1,475) said that their child's overall health and well-being has not changed this year because of FSM. However, 17% said it had and 15% said that it partially had (10% did not know). There were not significant differences in this between those reporting being offered FSM in the prior year, or those reporting on children with dietary needs. There is a small trend towards parents of younger children being more positive about this impact on overall health and well-being (by saying 'yes' or 'partly'), although the trend is not pronounced enough to infer confidently from.

Of 1,475 respondents to the parent survey item: 'Are the lunches offered by your school healthy?' 912 (62%) said 'yes', 448 (31%) said 'partly', and only 44 (3%) said 'no' (71 [5%] said 'don't know'). Parents referring to children in Year 6 reported slightly less frequently that meals were healthy (57% said 'yes' and 32% said 'partly'), and those with dietary needs reported more that meals were healthy with approximately the same frequency (61% said 'yes' and 32% 'partly').

Parents (n=1,475) reported varying perceptions of overall quality of school lunches, although the largest percentage (44%) said it was 'good' (see Figure 19). The largest percentage (47%) perceived quality to be about the same as prior to the policy initiative, with similar percentages reporting them being worse (15%) or better (17%).

Figure 19: Parent report of overall quality of school lunches (n=890)

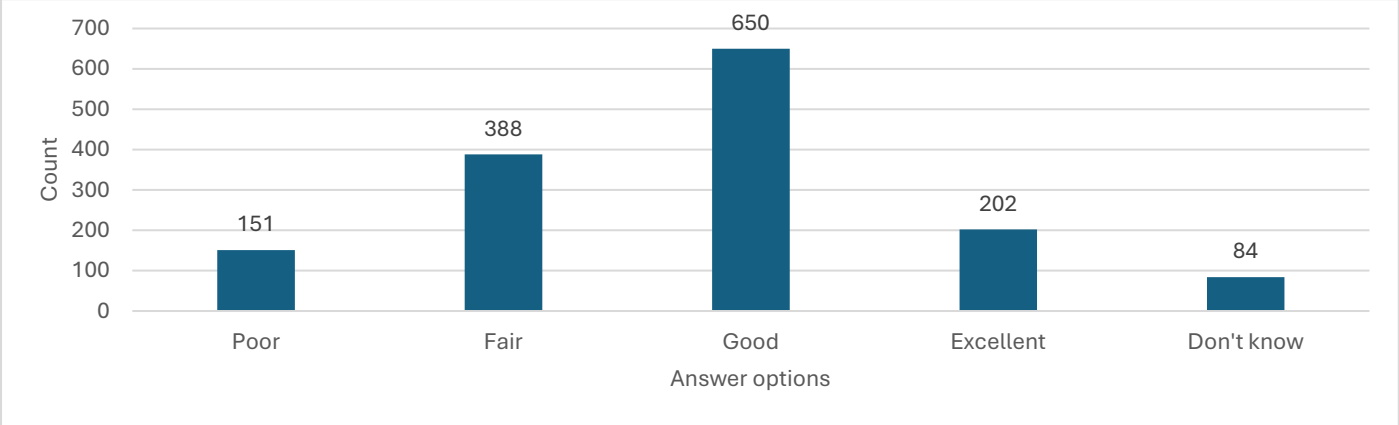
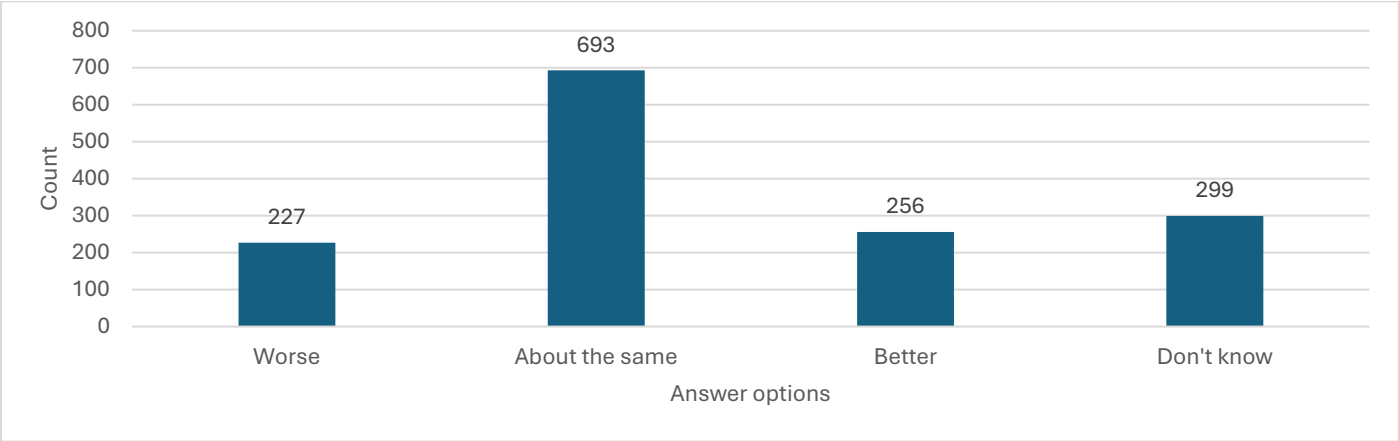


Figure 20: Parent report of change in quality of school lunches compared to year prior to the UPFSML policy (n=1,475)



Parents were generally glad that the meals served at lunchtime were hot, nutritionally balanced, and considered this to be an advantage over packed lunches. For example:

> *I need to make three packed lunches every morning, you know, it will be fairly…we will have the same things in the cupboard for, you know, to make it quick and easy. It'll be a, I don't know, a cheese sandwich a pack, peeled carrot, some fruit and maybe something else. But, you know, the fact that they have the option of having a variety of hot meals with, you know, a variety of vegetables and everything, it's much better for them and as I said, it's much less stress for me.* (Parent, Online interview)

When 1,475 parents were asked: 'Have your family's eating habits changed this year because of free school lunches?' within the survey, 71% said 'no', 13% said 'partly', and another 13% said 'yes' (3% said they did not know). Of those that said either 'yes' or 'partly' to this item overall, 31% (7% of the total survey respondents) said that weekday breakfasts had changed, 72% (17%) said that weekday evening meals had changed, 66% (15%) said that they buy different food, 72% (16%) said that the family eat more healthily, and 60% (14%) said that the family eat differently at weekends. An opportunity to give more detail around changes allowed parents to express that they use the money saved from school lunches to buy better food, and that children are more willing to try new foods, having done so in school. However, small portion sizes and children being hungry after school were also given as reasons for changes.

Some parents expressed that although there was not necessarily a reduction in overall costs, the policy has allowed them to spend money on more nutritious food in other ways. For example:

> *I wouldn't say it's decreased our costs, but we now can use the money that we were using on his packed lunch food on other things. So we spend more now on fresh fruit and veg which is, you know, just…they*

were having it before, it's just we can afford to like buy more every week now because we're not spending things on, you know, his snacks for school. (Parent, Online interview)

There was some evidence that evening meals had changed as a consequence of UPFSML, both because of the additional time afforded by not having to prepare lunches, but also because parents are confident that children have had a nutritious lunch. For example:

It does allow me to prepare dinner better because obviously I'm not having to do packed lunch and then think about dinner. (Parent, Online interview)

There's a couple of times they have hobbies quite far away and they love having a [supermarket] meal deal. And I don't mind. It's okay. If it's only once a week, and they're having a meal deal for dinner, it's like that's okay because at least they had a balanced meal, and then they're getting hot meals in the evening the other days. So, it's okay. Whereas obviously, if they were having sandwiches for lunch, there's no way I would be giving them sandwiches for dinner as well. (Parent, Case study focus group)

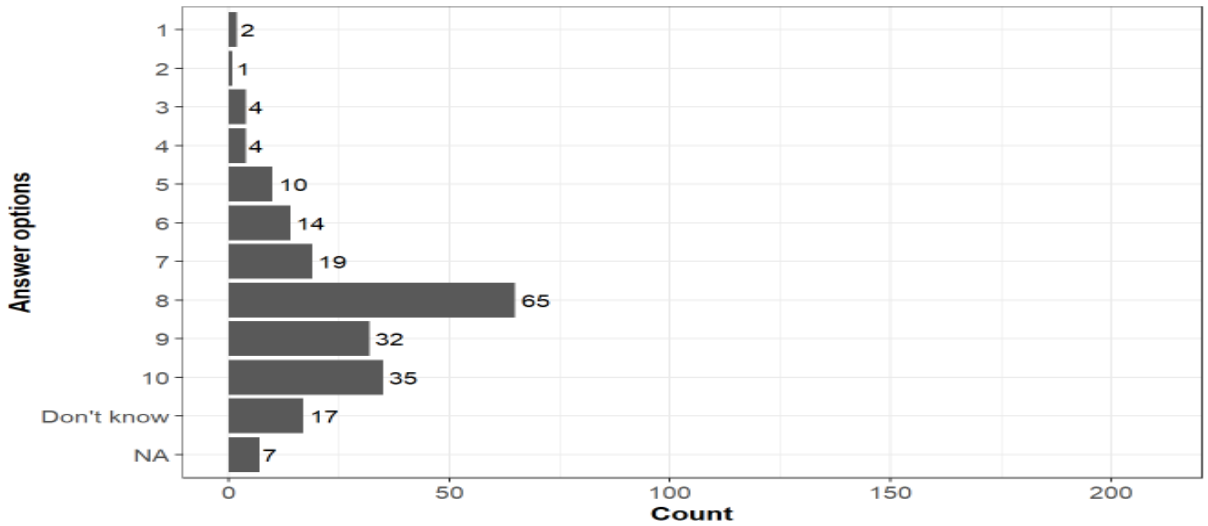
However, we did not get a strong sense from our data that evening meals have changed for most families. A typical comment was:

I think what we eat at home has generally stayed the same. Because, yes, nothing has particularly changed, it's more the convenience and then not having to worry about the financial aspect of them having to pay for lunches. (Parent, Online interview)

Overall support for the policy

As reported throughout this section, parents in case study and online interviews expressed support for the policy, even when reporting that the effects of the policy on themselves was minimal. We include this here as a broader perceived influence of the policy. This finding is also supported by data from the schools survey, when asked: 'How would you describe the level of support among your school's parents for UPFSML? (10 being extremely high levels of support)', respondents to the survey gave the following responses:

Figure 21: School report of strength of parental support for the UPFSML policy (n=203)



The mean response is 7.83 (SD of 1.85), indicating that respondents thought that parents were supportive of the policy. This is corroborated by our parent interviews and case study visits, where almost everybody was supportive of the policy initiative. Headteachers and other school staff, concerned by the negative impact on school budgets, were the only group that we found to view the policy less favourably (this is discussed under IPE research question 5).

Please note that findings for IPE research question 4: Are there any other impacts or unintended consequences of UPFSML on families and pupils? have been subsumed within the reporting of the findings under IPE research questions 1 to 3. The comprehensive Theory of Change, and the broad nature of IPE research questions 2 and 3 mean that the detail of family decision-making and perceptions of impacts may be included above. It should also be noted that the stated intention of the policy initiative was to address the cost-of-living crisis, so it is not straightforward to qualify what was 'unintended' beyond this.

Section B: Regarding schools and school communities

Fidelity: 5. Has the school been able to offer school meals to all children?

The policy was implemented with high fidelity across the London schools, which we engaged with in our IPE. Earlier in this report (under IPE research question 2), we reported on choice, provision for dietary requirements, and portion size. Meal quality is reported on under IPE research question 7 below. Here we report on provision of hot meals and appropriate and sufficient time to eat in the day, as further aspects of fidelity.

Provision of hot meals

Around 97% of respondents to the school survey (n=210) said they offered school lunches to all Key Stage 2 children in the school every day from September 2023, and a further 1% said that they do now, but did not have this in place in September 2023. No respondents reported that they did not have provision in place now. Around 92% of respondents (n=208) said that their school offer more than one hot lunch, and a further 6% indicated that they only offer one hot lunch choice.

Around 95% of respondents from schools (n=210) indicated that they had a kitchen with capacity to cook lunch for all children at the school. Around 4% said that the school has a kitchen that does not have capacity to cook lunch for all children and only one respondent (0.48%) said that the school does not have a kitchen.

Of the 477 respondents to an item in the parent survey asking whether their school offer hot lunches, 89% said 'yes', 7% said 'partly', and only 1% said 'no' (3% did not know). We suggest that those indicating 'partly' may have been referring to both hot and cold lunches being on offer by schools. All case study schools that we visited offered hot lunches.

e. Appropriate and sufficient time to eat in the day

In the parent survey, 82% of the 477 respondents[22] to an item asking whether their child is served lunch at an appropriate time, said 'yes', 8% said 'partly', and only 2% said 'no' (8% said that they didn't know). Similarly, of the 521 respondents to an item asking if their child has enough time to eat school lunches, 58% said 'yes', 23% said 'partly', and only 9% said 'no' (10% did not know). There were no significant differences in these items across report by year group, despite our finding from case studies that younger children often eat first and often take longer to eat lunch. Case studies suggest that children are given as long as they need to eat and are often encouraged to finish their meals before going out to play at lunchtime (as also noted in relation to portion size consideration; IPE research question 1). Pupils in focus groups told us that where there are instances of them still eating at the end of lunchtime, they are permitted to continue eating into afternoon lessons. This occurred rarely, but as a consequence of those eating earlier taking too long for them to be called in to eat in sufficient time. Occasionally, this also occurs where pupils have additional responsibilities either in the lunch hall, or elsewhere in the school.

In the survey of schools, 80% of respondents (n=210) indicated that they have not made changes in how much time is available for lunch; 10% indicated that they have given more time for pupils to eat lunch; 6% said that they give pupils less time. Around 6% said that they had introduced other changes, including changes to playtimes, introducing staggered lunches, or being responsive to when year groups can enter that lunch space (rather than this being at a pre-determined

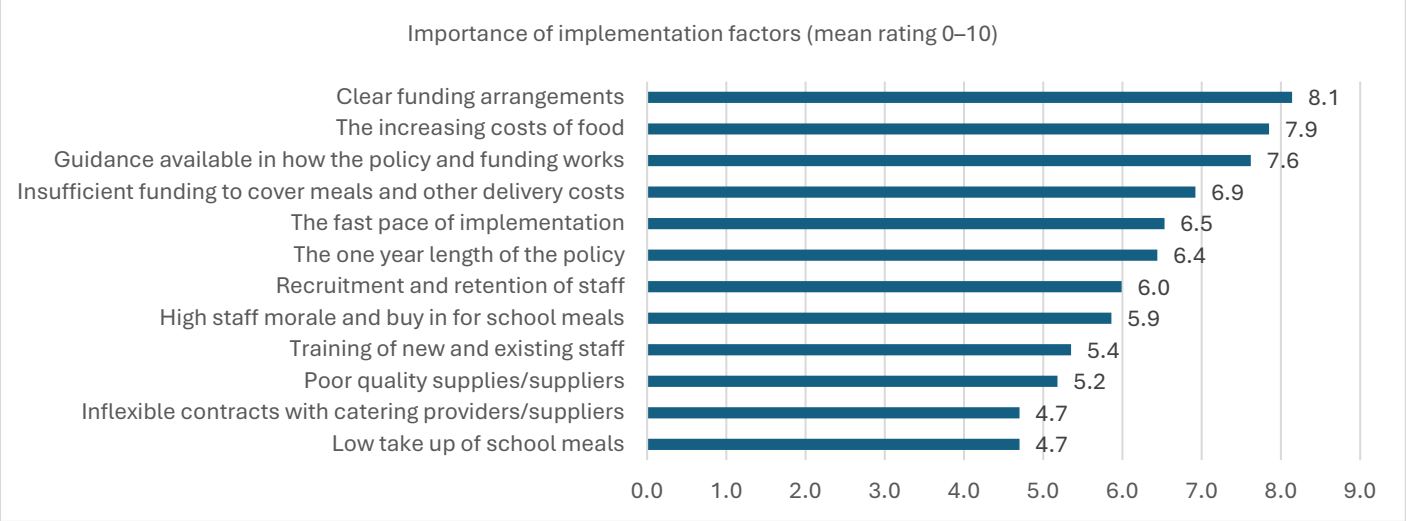
[22] To keep the parent survey short, respondents were either asked an item about lunch being at an appropriate time, or their child having long enough to eat, or whether the school offers hot lunches.

time). Around 70% of respondents indicated that they already had staggered lunchtimes and have kept this option, while 26% said that they have introduced staggered lunchtimes. Around 3% said that pupils still all eat together in one sitting (1% said 'other').

6. What facilitators and barriers have there been to delivering UPFSML?

The school survey presented a series of factors around implementation and asked: 'How important were the following factors in your school's ability to scale-up lunchtime and provide universal FSM? (1 being not important and 10 being very important)'. The following responses were given:

Figure 22: Reported importance of various implementation factors, from the school survey (n=192)

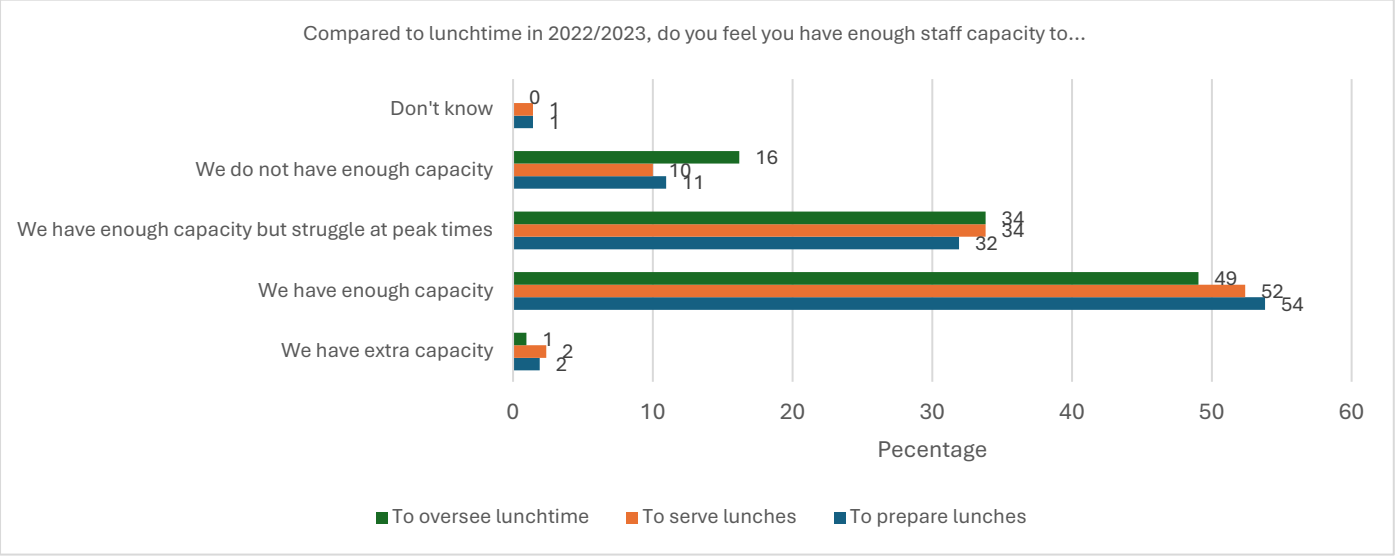


However, there was a large variance in responses to each of these items, indicating that schools have a range of different priorities and concerns around implementation. Among those within the survey, financial factors appear to have been most relevant to respondents.

a. Staffing (capacity)

When asked to compare staff capacity for the year that the policy was introduced with that for the prior year, respondents to the staff survey (n=210) indicated that they generally had capacity now, although a significant minority reported that they struggle at peak times, and a smaller minority reported that they do not have capacity.

Figure 23: School reported capacity to oversee, serve, and prepare lunches (n=210)



Around 76% of respondents to the school survey (n=209) indicated that the school had not recruited any additional staff to support implementation of UPFSML. Around 18% said that they had and 13% did not know. Of those that had employed additional staff, 55% had employed additional catering or kitchen staff, and 45% had employed additional lunchtime support staff. The mean number of new catering or kitchen staff employed was 1.52, and the mean number of new lunchtime support staff was 1.8. It should be noted that surveys were completed by headteachers or school staff, so may not fully represent changes to staffing within private catering companies. Open-text responses to the survey and headteacher interviews during case studies suggest that existing staff were given additional hours in some schools. Case study visits also suggested that in some settings staff were having to work harder following the UPFSML policy introduction, because budgets did not allow further staffing increases, despite the increased number of meals being served.

> *I'm just talking as a whole, with the more children, obviously, it has an effect on us but the number of middays that we have in the kitchen, hasn't increased, it actually decreased like, so they are taking away people.* (Caterer, Case study interview)

Additionally, some catering teams struggled to recruit and retain staff:

> *I've got some vacancies, even my relief vacancy is really difficult to fill. I've had people come in, they've worked a few days and then they've left. People don't understand the pressure and the fast pace of the kitchen and actually, it's not just a job where you can just walk in, it's actually you've got to work on your feet, be efficient.* (Caterer, Case study interview)

A related factor in quality of food provision was the training of staff, irrespective of how long they had been with the school:

> *To be completely honest with you, we are working on the quality of the food. We have localised staff who have always been here, in terms of in the kitchen, but we changed catering company. So, the issue doesn't lie with the catering company, the issue lies with the quality of the cooking in some cases.* (Headteacher, Case study interview)

b. Scaling kitchen and dining facilities

From 210 responses to the school survey, 60% said that they had a contracted private caterer, 20% said that they had 'in-house catering', and another 20% indicated they had a 'local authority caterer'.

When asked: 'If your school has made any change to the catering model (meaning how lunch is purchased and prepared) in or for this academic year (2023/2024), why was this?', 68% of respondents to the school survey (n=210) indicated that they made no changes. Around 30% indicated that they made changes 'to scale up for UPFSML' and the remaining 2% said they made changes for other reasons. When asked for the reason for these changes, the most frequent response was that more kitchen equipment was purchased. For example:

> *We have had to make significant improvements to the kitchen equipment to be able to offer free school lunches to all the KS2 children in school, at a cost of £44,350 +VAT. Our catering expenditure has also increased from £50K last year to £68.5K to date, with 2 months of expenditure still to come.* (Respondent, School survey)

Some case study schools and catering companies had bought additional combination ovens (often programmable to cook specific foods easily), although others had suggested that they did not have the space for more equipment. School survey respondents and case study visits also indicated that more cutlery and trays or plates were needed, or that staff hours needed to be increased. Around 10% of respondents to the school survey indicated that they were receiving additional funding from local authorities for these additional costs, and a further 2% said that they had received a GLA capital grant.

There were also changes to processes indicated within the survey, for example, to ordering systems for parents and to the timetable or the introduction of an additional aspect of catering. For example:

> *[The school] introduced a Grab and Go model for Years 5 and 6 to allow for increased demand and still meet the one hour of service time.* (Respondent, School survey)

Our data include several references to such 'grab and go' models being introduced, often including older children being able to choose baguettes on some or all days of the week. This was suggested to also be helpful in preparing young people for secondary school lunches.

Additionally, there were changes to menus designed to ensure a greater number of meals could be delivered, for example, by not cooking meals in which ovens were required for longer per meal.

Dining space

Around 84% of respondents to the school survey (n=210) indicated that no changes had been made to the dining space used at lunchtime within the year the policy was introduced. Around 13% said that the space used had changed as a result of the UPFSML policy and 3% said that it had changed for other reasons.

Around 55% of respondents to the school survey (n=210) indicated that 'children eat in a large multi-functional room (e.g. sports hall, assembly hall)' and an additional 38% indicated that 'children eat in a dedicated canteen or dining hall'. Around 1% indicated that 'children eat lunch in classrooms' and 6% indicated that they eat in a 'mixture of these spaces'. The reasons given for changes echo those given above in relation to the catering model, indicating changes to mealtimes, staffing, equipment, and processes. The purchase of new tables and seating was mentioned also. Additionally, comments in the survey suggested that some schools now used more than one space for dining (e.g. the dedicated space and an additional multi-use hall or in classrooms), with one respondent noting that those having packed lunches are now given the option of eating outside. We will discuss other effects, such as changes to branding and decoration later in the report (under IPE research question 9 around other impacts).

Case studies suggest that the increased attention on lunchtime, following the policy initiative, led to some schools redecorating or rebranding their lunch spaces, including the purchasing of tablecloths, table centrepieces (such as fake flowers), and improving displays in relation to nutrition.

> *With the introduction of [UPFSML] we have decorated the hall, purchased table clothes and centre pieces.* (Respondent, School survey)

However, an emergent theme within our case studies was children commenting on dirty cups, crockery, and plates, or trays. Often, these are washed mid-service and in focus groups children often brought up a sense of them still containing food residue or not being clean. Likewise, later during lunchtime, tables and floors were considered to be dirty. While lunchtime supervisors (and sometimes pupils themselves) continually clear up spaces, our observations confirmed a general decline in cleanliness across lunchtimes. Children were also sometimes quite sensitive to a sense of cleanliness and hygiene, for example, commenting that serving staff did not wear gloves.

c. Finances (financial factors)

Funding arrangements were not a primary focus of our evaluation and here we report on the findings from our school survey and case study visits, which directly speak to issues of funding, rather than provide a systematic analysis of financial impact on schools.

The guidance for boroughs and schools[23] detailed how state-funded primary schools in London, special schools, and pupil referral units, were allocated funding on the basis of the number of pupils not previously eligible for government-funded, means-tested FSM. This was based on census data and funding of £2.65 per child, per day, was then allocated to schools

[23] An updated version of which is available at: www.london.gov.uk/who-we-are/what-mayor-does/priorities-london/free-school-meals/

on the assumption of 90% uptake of FSM. This was paid to local authorities in London, who then distributed it to authority-maintained schools and to Academy Trusts in their area. Schools were then able to apply for additional funding through evidencing uptake over 90% on census days in January 2024 and March 2024. Case studies suggested that in a minority of schools that we visited, boroughs used a small amount of the funding allocated through the policy to provide a fund for equipment and works to schools required to meet increased demand. The funding was raised to £3.00 per meal in the 2024/2025 school year, and the influence of that increased funding will be reported upon in the final project report in 2026. Here we consider the financial situation for schools in 2023/2024.

As discussed in relation to cost evaluation results later in this report, respondents to the school survey item asking to specify costs per meal (n=135) gave a mean per meal cost of £2.58 per meal (with an SD of 46p and range of 70p to £4.90 per meal). In an item of the school survey asking whether the school budget subsidised or funded Key Stage 2 meal provision, 44% of respondents (n=209) said 'yes', while 43% said 'no' (13% did not know). These findings suggest that a large minority of schools were spending more per meal than the £2.65 funded by the GLA for 2023/2024 school year.

Our interviews with headteachers and finance managers within case studies suggest that those paying more than the allocated funding for meals found it to be a financial burden on the school budget, and that this went against the intention of the policy, and perceptions of parents. For example:

> *There was a lot of confusion at the beginning. We knew that we were going to get £2.53 a meal when it was costing the school over £3 a meal. So we had to find money somewhere within our budget. Obviously, you cannot ask parents to contribute because it goes against the principles. (*Headteacher, Case study interview)

> *I don't really know how they'd ever calculated what the per meal price was going to [be] because I had then done communication with our parents to say, we are losing money on this. And at one point we'd, last September, we were losing £35,000 over the year for meals if you combine the Infant Free School Meals [UIFSM] with the Key Stage 2 free school meals [UPFSML]. And I think obviously for parents they're hearing free like in the press free and in terms of the [M]ayor of London's announcements, free, and actually they aren't free to schools.* (Headteacher, Case study interview)

Others felt that additional costs were not being met by the policy initiative. For example:

> *Whilst there's funding for the meal, there's never been any funding attached to this for increasing costs for staffing or increasing costs for energy. Not for the kitchens, but for the hall. The lights are on all the time. There's lots of other relevance to it that hasn't been factored in.* (Headteacher, Case study interview)

> *UPFSML has not kept in line with the increase of salaries and food cost, therefore whilst the UPFSML is a very good idea it can be very difficult to make changes through it if the costs mean that schools can't bring value to meals or additional changes to environmental impacts.* (Respondent, School survey)

In contrast however, some schools noted a financial advantage because they were already funding meals for some families:

> *Because of the cohort of children that we have and the high levels of deprivation, we were having to give a lot of children free school meals who weren't entitled to it already. So, the mayor [Mayor of London] giving everyone free school meals, it really saved us a lot of money.* (Headteacher, Case study interview).

The initial allocation of funding for UPFSML for one year meant that schools were not able to negotiate with catering companies very easily. One headteacher said:

> *It was originally a one-year contract. So no catering company would negotiate with you until they would have evidence of what would happen. Then it was extended for another year. But we know that in [the Mayor*

of London's] campaign to be re-elected he said he would make it permanent. Until that really materialises, the catering company will not negotiate. (Headteacher, Case study interview)

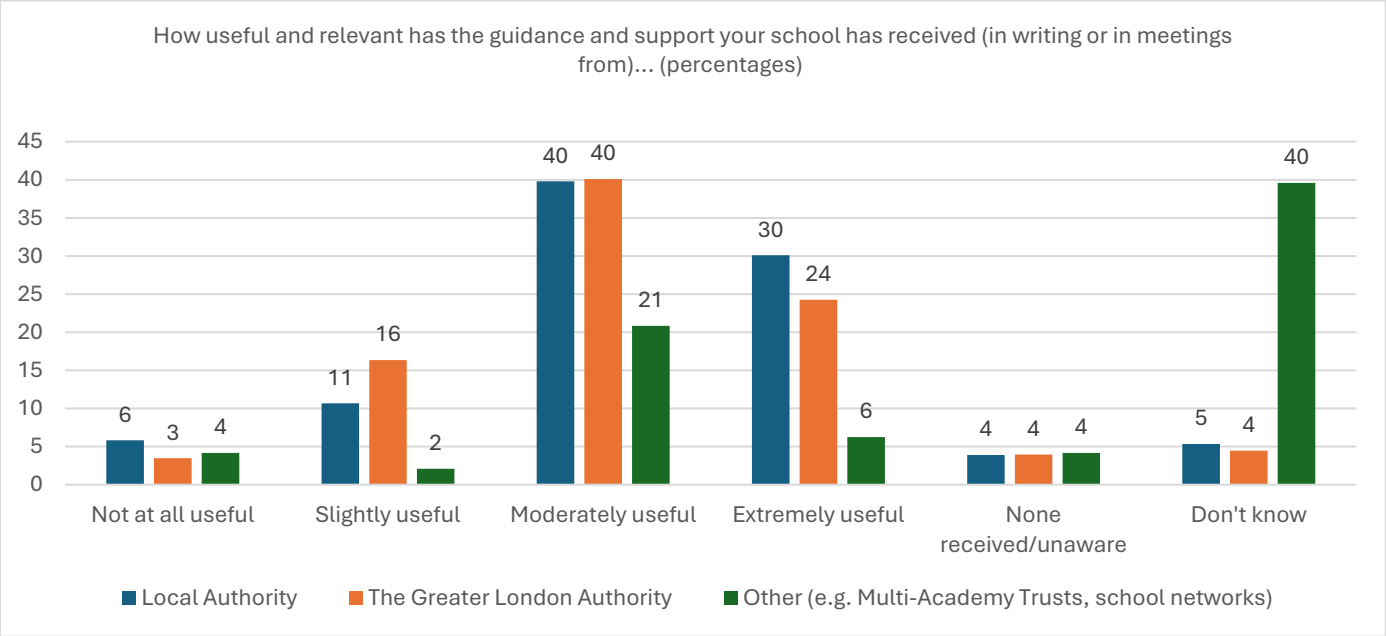
The same was true around consideration of investing in additional equipment; schools and catering companies were hesitant to invest until the policy was extended (the announcement of which was made in January 2024).

There was some concern among school leaders and administrators that additional funding for over 90% uptake would not be given, as this was provided late in the year. Other case study schools felt that the payments from local authorities came too late in the year, and that there was a deficit within the school budget for too long.

Guidance and communication around the UPFSML policy initiative

Respondents to the school survey most frequently evaluated the guidance that they had received as 'moderately useful':

Figure 24: Perceptions to guidance around UPFSML, reported in the school survey (n=210)



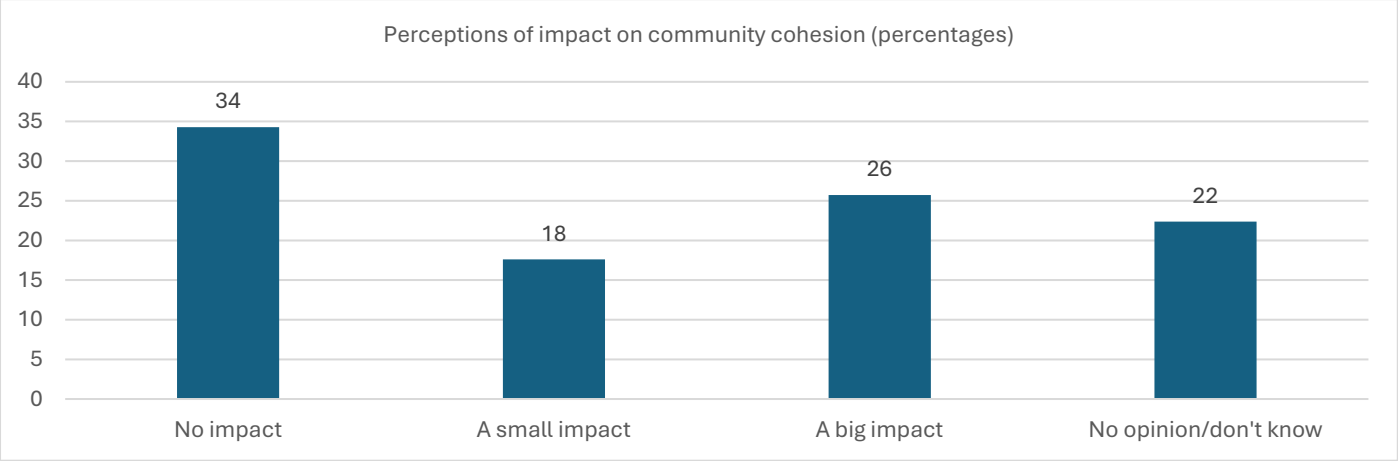
Interviews with headteachers during case study visits suggested that the announcement of the UPFSML policy in February 2023, and the following information coming from local authorities meant that there was uncertainty during the spring and summer of 2023 as to how the policy would work. This was more pronounced because parents heard about the UPFSML policy at the same time as school leaders, through the media. Overall, however, the guidance from the GLA and local authorities was well received when it did arrive.

7. What influence has UPFSML had on the following?

a. School community cohesion and educational benefits of dining together

Responses to the school survey (n=210) show a mixed response to the item asking: 'What impact do you think UPFSML has had on community cohesion and the quality of social interactions?':

Figure 25: Perceptions of impact on community cohesion, reported in the school survey (n=210)



Community cohesion is influenced by whether those eating school meals and those eating packed lunches sit together. In relation to the 2022/2023 academic year (prior to the policy change) 81% of respondents to the school survey (n=210) said that children who eat a school lunch and children who eat a packed lunch sit together, and a further 9% said they do 'sometimes' (10% said 'no'). In the 2023/2024 academic year, 82% said that they sit together and 21% said sometimes (8% said 'no'). This represents a very small increase in children eating together, although too small to draw conclusions from. Our case study data suggests that most schools allow those eating packed lunches to simply sit down first as they enter in year groups, and then those taking FSM sit around them. Headteacher interviews suggest that this has not changed with the UPFSML policy being introduced. However, one respondent to the school survey said that *'children who eat FSM are in the large hall and packed lunches are in the small hall'* (Respondent, School survey). A further respondent said that *'packed lunch pupils have the option of eating outside'* (Respondent, School survey). This shows that where there is pressure on dining space, there is still some separation of those eating packed lunches from those taking school meals.

The Theory of Change focuses on increased community cohesion through every child having the opportunity to sit together and eat the same meal. However, we also saw benefits of the policy more broadly related to increased attention to the importance of lunchtime within the school day, and the consideration of educational potential of lunchtime, for example, in relation to teaching manners, etiquette, and promoting responsibility.

> *As more children are now eating lunches provided by the school, we now try and create a positive dining experience with the atmosphere and positive conversations.* (Respondent, School survey)

While this sometimes involved changes to the lunch hall or processes around service, there were broader community benefits reported across our dataset. For example:

> *With the children, all of them sitting there with their hot dinners, and that, or jacket potatoes, or whatever they choose to have, I think it's just more of a communal thing where they can chat more and things. Which they do when they have the sandwiches as well, but I think it's just nice to go up. They can talk about what they're choosing when they go up to have their dinner. And it just gives them more life experiences. I know that might sound silly but it is.* (Teacher, Case study focus group)

> *They had a hot meal, which was nice, and then they sat with other children, you know, they learned to socialise while eating. They were, you know, holding knives and forks and they had to have good table manners and so on. So I think that's really good how that's reinforced.* (Parent, Online interview)

Such sentiments include the increased likelihood of children trying new foods when seeing their friends eating them (as discussed under IPE research question 1), and further benefits in terms of socialisation and eating as a group. The increase in uptake for those already eligible for means-tested FSM, and those with SEND being encouraged to take school meals (discussed in IPE research question 2), also likely both contributed to and emerged from such increased cohesion around

everyone eating school meals together. Although in the majority of case study schools we saw children sit with their friends, there were cases where children sat with other year groups and people they did not otherwise regularly interact with too.

> *So when we sit down, sometimes there's not enough space for me so I sit somewhere where space is free. And so there's some people around and then I just have a chat with them.* (Pupil, Case study focus group)

> *It's really fun to sit with other people and not let them be lonely on another table.* (Pupil, Case study focus group)

Although not included in the Theory of Change, catering staff within case studies reported feeling that they were more part of the school community, because they engage with more of the children. For example:

> *I think it's nice seeing all of the children come through, because obviously you only see your regulars before when it was just…So, it is nice getting to see everybody.* (Catering staff, Case study interview)

Some of the case study schools we visited gave pupils responsibilities at lunchtime, for example, serving other pupils at the salad bar, or helping with the dirty plates and cutlery. One case study school we visited had a 'learning kitchen' where children learned to cook their own meals, and a small number of other case study schools had direct links between curriculum areas and school lunches, for example, through a school allotment providing some produce to the kitchen. Several case study schools had 'meat free Mondays' (or other days) and linked this to environmental considerations. In contrast, some children in case study focus groups commented on how they learned about healthy eating in the classroom, but this was not reflected in the food they ate. One pupil commented: *'They teach us healthy eating, but then they don't really give us healthy eating'* (Pupil, Case study focus group).

Stigma and equity in relation to school lunches

Open-text responses to the school survey item around school cohesion mentioned the reduction of stigma, and this was linked to children sitting together and eating the same meal. For example:

> *UPFSML has eliminated the stigma attached to means-tested FSM.* (Respondent, School survey)

> *All children eating the same brings a sense of unity and much less stigma around FSM.* (Respondent, School survey)

However, understanding what is meant by 'stigma' requires nuanced consideration. The Theory of Change suggests that the UPFSML policy may reduce poverty-related stigma and shame, as a factor in family stress. Consideration of such stigma and shame should be qualified with recognition that none of the schools with which we engaged previously identified children who were having FSM in a way that other children or families would be aware of. Although some parents remembered and assumed practices such as badges or vouchers being given to those having FSM, these practices seem to have (thankfully) died out a long time ago. Where stigma was noted, however, was in relation to families who were not previously able to provide nutritious packed lunches or to afford school meals.

A caterer told us during case study interviews that disadvantaged children would sometimes ask for food, even though they had not paid for it:

> *Sometimes they'll say, 'Miss, I know I'm not on lunch, I don't order, but can I have this?' But now all of that's stopped…They all have confidence to come for food.* (Caterer, Case study interview)

Furthermore, one headteacher commented:

> *I've had some disadvantaged children in the past who had just brought in plain bread and fruit. Obviously, when you pick up on it, they do feel a bit embarrassed. Because you have to approach them and have that*

conversation, and they do feel embarrassed. I think it takes that embarrassment away knowing actually my meal is the same as my friend's as well. (Headteacher, Case study interview)

Parents wanting their children to sit and eat with others was a consideration for parents, including those who could afford school meals previously:

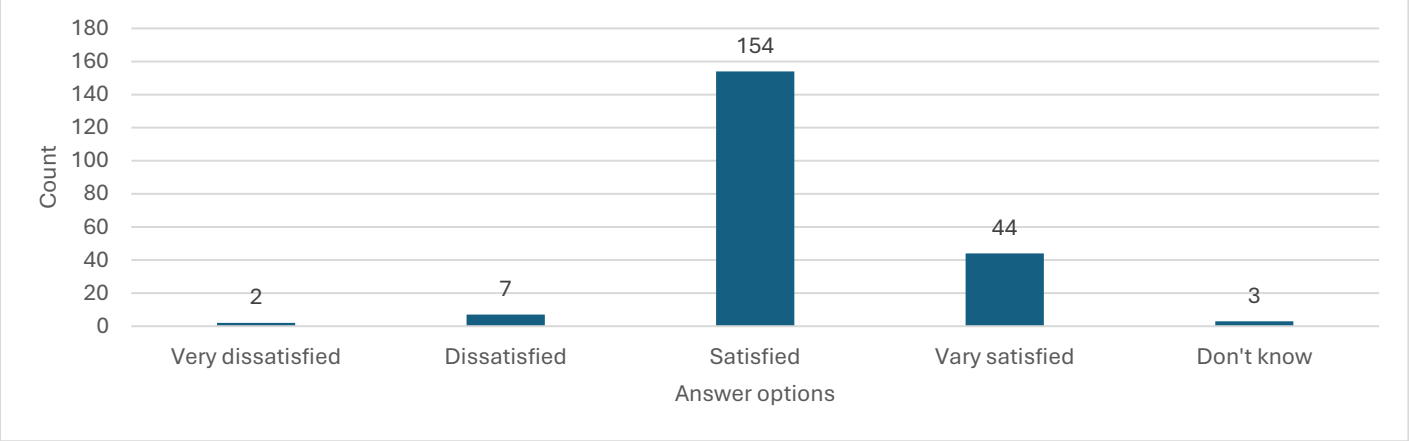
So the cost didn't really come into it for me. It wasn't something that I thought, 'God, I can't afford this'. I just wanted him to be able to sit, maybe with the others and join in and have the pizza or the fish fingers. (Parent, Online interview)

School meal quality

Around 71% of respondents to the school survey (n=197) said that they monitor the nutritional balance of school meals (compliance with the national school food standards), whereas 22% said that they did not (7% did not know). Around 81% of respondents (n=197) said that they monitor food safety, compared to 14% who indicated that they do not (5% did not know). When asked: 'In your opinion, how has the nutritional quality of your school's lunches been affected by UPFSML?', 90% of respondents to the school survey (n=209) indicated that the quality was 'about the same'. However, 7% indicated that the quality had 'reduced' and only 3% said that it had 'improved' (1% said they did not know).

When asked: 'How satisfied do you think school parents are with the lunches served at your school?', respondents (n=210) to the school survey gave the following responses:

Figure 26: Perceptions of parent satisfaction around lunches, reported in the school survey (n=210)



Case study data suggest that the UPFSML has enhanced the voice of parents in relation to school meals, which was seen as a driver of quality:

I think it's made the voices of the parents bigger, because I think they feel it's their right to know what is in the school dinners. And even though they're not paying for it, you'd think it would be the other way around. That if they were paying for it, they would think I'm paying for this, I want to know. But actually somehow, it's almost like maybe because there's more of them doing it. They want to know a lot more about the ins and outs of it and everything. So their voice has been louder. (Headteacher, Case study interview).

However, the scaling up of provision and the increased cost of food were both seen as barriers to successful implementation of the policy in some schools:

I think what would've been ideal would have been if they were going to roll this out to schools that they first checked that the quality was good of the meals, and that the systems to make it work smoothly were strong enough and reliable enough. And if they'd done that first, then the impact may have been more. Whereas I don't think the quality of the meals are good enough. (Headteacher, Case study interview)

> *We can't lie about this. The food is not good enough and it's definitely not as good as it was before, because the price of food has increased, but the funding that we receive has not. So the funding is a real issue for us on many different aspects, but one of them is that there's more children that are taking the free school meal offer so they don't have the packed lunches, and the expectation from parents is that the quality is going to be good when it could be better.* (Administrative staff member, Case study interview)

c. Well-being of school administrators

Around 70% of respondents to the school survey (n=210) said that their school has experienced reduced administration related to payments for school lunches and chasing lunch debt. Around 24% said 'no' and 7% did not know.

Case study visits suggest that the well-being of school administrators is a function of processes necessary to deal with the ordering of menu choices. For example, some administrators simply provide the number of children present in the school each day to the kitchen staff and identify the numbers with specific dietary requirements. Catering staff then cook the anticipated number of meals for children to select from. Where the number of packed lunches are also anticipated, administrative staff are often involved in determining how many school meals are required each day. This can be more complex where children do not take school meals every day:

> *And although it's an admin task, we give the children the option that if they want to have a hot dinner on a Tuesday and a Thursday, they can do that, they don't have to opt into packed lunches or hot dinners.* (Headteacher, Case study interview)

Where meal options are pre-ordered, administrators are often involved in sending reminders to parents to order meals. The regularity of this varies, depending on whether lunches are pre-ordered daily, weekly, or less frequently, such as termly. The burden of chasing lunch orders also depends on how tightly the number of meals pre-ordered determines what the catering staff prepare. Where there is some flexibility, children whose families have not pre-ordered in time are still able to take a school meal. This also allows children to occasionally take meals that are different from what has been pre-ordered for them. In an extreme case that we saw though, tightly defined budgets meant that only the number of each meal choice ordered were cooked, and this caused considerable stress for administrative staff:

> *The parents might call us and say, 'I'm so sorry, I forgot to book the meal.' And every single day parents forget to book meals, and every single day we need to have that same conversation with parents saying, 'I'm really sorry if you haven't booked it, they're going to get the alternative, which is a cheese sandwich.' And they'll say, 'Well, she won't eat that.' And then they'll argue…we get possibly up to 15 packed lunches delivered in the office every day.* (School administrator, Case study interview)

Our findings suggest that where children were able to determine their meal choices at the point of service, there was greatest reduction of administrative burden within schools. This corresponds with the sense that such choice also supports pupils to try new foods, and eat the meals they prefer on the particular day. We recognise the potential financial constraints on this in caterers having to estimate the number of each meal being taken by children. However, many caterers manage this well, and less frequent indication of meal choices is likely to reduce administrative burden all round.

d. Well-being of teachers

Some teachers and senior leaders commented on reduced stress from needing to have conversations with families about the lunches that they were providing for children:

> *Having discussions with families about, 'Okay, you can't really bring that food in. It's not healthy.' Or, 'I've noticed that you've not got…' Sometimes it is awkward for teachers because you don't get trained when you're an early careers teacher how to have conversations with parents about food.* (Teacher, Case study focus group)

We've had parents in the past saying 'It's my decision what goes in [the] lunchbox. I'll put in what I want.' And so, you know, in a school you don't want confrontation. (Senior leader, Case study interview)

Additionally, teachers in case studies often reported a general increase in well-being from knowing that every child will have a meal (including those who previously did not bring one). There were other positive influences of the policy on what teachers reported, such as not having to deal with lunchboxes going missing, or in dealing with a family not providing a lunch or paying for a meal.

Some teachers are involved in managing lunchtimes, in addition to lunchtime supervisors. For example, the school management team may have this as part of their additional responsibilities. Although this goes hand in hand with the potential for educational aspects of teaching children how to socialise and eat together, it can require additional input.

I think when they're sat down and they're eating around their tables, it can have a good impact, but a lot of that is to do with the management of the lunch. So, if they're being supported and managed, and they have that opportunity to have that time for discussion, then the children will do that. If there are challenges for other reasons, then that impacts on that. (Headteacher, Case study interview)

The vast majority of teachers that we spoke to during case study interviews saw lunchtime as a time within the day when they could take a break. While some did take school meals themselves, they often ate in a classroom or staff room.

e. Learning environments (cognitive function, engagement, behaviours, readiness, and absence)

We above noted attention to how children dine together has likely increased due to the UPFSML policy, and how this has benefits in relation to social learning such as how children use cutlery and develop manners. The lunch hall should therefore, be considered a learning environment. The Theory of Change around the policy implementation draws attention to the potential for better nutrition and children not being hungry having a direct impact on classroom learning environments beyond the lunch hall. We have mixed evidence in relation to this and overall suggest that this may only be the case for children who were previously not eating enough during lunch. This is likely to be a small number of pupils who were not previously eligible for FSM and whose families could not pay for a meal or provide a sufficiently nutritious packed lunch. The vast majority of children were previously eating lunch.

The findings around this are confounded by the fact that some children eat less because of the choices available, their preferences, and their desire to play. These factors are reported on elsewhere in this report and persist despite the UPFSML. Parents echoed the perception that their children would likely be less distracted if they are less hungry:

I don't know specific examples from my son, but I do know that when he's, you know, not hungry and thinking about snacking or eating that he's more focused and he's able to get stuff done. So when he's doing, you know, practice questions at home, if he's hungry, I'll say, 'Have your snack first.' So it just, it goes to show that when a kid isn't distracted by hunger, they can focus more. (Parent, Online interview)

When we are not focusing and we haven't got the energy 'cause we're not eating the right things for our body, I really do think that that has an impact on children for their performance, to have a good diet. (Parent, Online interview)

I know it's important for children to feel sort of full up. That's how they learn best. So I think funding this should be a priority for all primary schools, if it could be spread out. Not even just in London but across the UK, that'd be amazing. I think the benefits it has for children are invaluable. (Parent, Online interview)

However, the majority of teachers that we interviewed in case study focus groups said that they had not seen a change in learning or behaviour, which could be attributed to the UPFSML policy. Some expressed a general sense that they could tell whether a child has eaten versus when they have not, but not that they could discern specific differences in behaviour or

learning in relation to nutritional quality. There was however, the occasional mention to changes in diet and behaviour within our dataset, for example:

> *We do find that their concentration is good actually in the afternoons. Just the benefit of having a proper school lunch, just that fuel for your brain as well. We do find that they come in refreshed in the afternoon.* (Teacher, Case study focus group)

> *It's probably linked to the change in caterer more. So, they've gone from having no processed food to having brownies with vegetables hidden in them…a number of teachers, kind of, around Christmas time commented on, 'Actually, if we reflect back, we have seen a big change.' In just their stamina, their behaviour. I think they were having that horrible sugar spike before and then the massive dip.* (Teacher, Case study interview)

Children themselves sometimes reported that they had more energy having eaten lunch. For example:

> *When I have food, I have energy. When I have energy, I feel motivated.* (Pupil, Case study focus group)

The influence of eating or otherwise is also to do with a pupil's choice as to whether to eat or not though, as this interview extract shows:

> Pupil: *'Sometimes, when I don't really eat too much, in the afternoon, I just feel sick, and I drink plenty of water, and my head hurts, and I can't concentrate.'*
>
> Interviewer: *'And why might it be, do you think, that you wouldn't have eaten enough on those days?'*
>
> Pupil: *'Because it's either not good, or it's too cold.'*

Overall, we suggest that where a child is hungry, or has a poor diet, there may be a negative effect on classroom behaviours and learning. The UPFSML may have addressed this for the small number of pupils who did not have access to a nutritious meal previously. However, the influences on behaviour and learning are myriad, and we are not able to strongly associate any change in general with the policy initiative.

8. What are the perceived potential impacts on: …

a. Environmental sustainability (waste)

Of the respondents to the school survey (n=197) 69% said that they monitor food waste, compared to 26% who said that they do not (5% did not know). When asked: 'Has the introduction of UPFSM had an environmental impact on the school (e.g. procurement of meat, food waste, use of plastic)?' 26% of respondents (n=202) said 'yes', 41% said 'no', and 33% did not know. Those that indicated 'yes' said that there was more uneaten food being thrown in bins, there was more packaging from food supplied to kitchens, and that there had been an increase in procurement of meat and fish. This was 'offset' by a reduction in packaging waste from packed lunches. Schools indicated that they compost and separate food waste more in response to increases.[24] Those schools indicating 'no' to an environmental impact said that the introduction of Universal Free School Meals (UFSM) had minimal impact on their environmental practices, largely because many already had high meal uptake and sustainable systems in place. Several schools noted that they were already cooking meals in-house, sourcing ingredients locally, and using reusable or recyclable materials. Others emphasised that food waste and plastic use remained low due to existing policies and ethos. While a few schools reported increased food waste due to children not eating meals they did not choose, most maintained that UPFSM did not significantly alter their operations or environmental footprint.

[24] Government legislation made it compulsory for schools in England to separate and manage food waste in March 2025, following the school year on which we are reporting here.

These survey findings were corroborated by case study visits. However, what also became apparent through case study data is the need to balance attention to waste with the benefits of allowing and encouraging children to try foods, which they might not have previously. While some children waste food through, for example, taking more bread or salad than they will eat, and lunchtime supervisors play a role in encouraging children to eat when they want to go out to play, our findings above around pupil choice, culturally appropriate meals, and provision for SEND, all indicate the health and educational advantages of children trying foods that their peers are eating. To this, we add from our case study observations and conversations with children that some children from disadvantaged backgrounds may not have the opportunity to try and reject food in their homes.

b. Local economy (including use of external contractors)

We noted earlier in this report (under IPE research question 6) that there were small increases in staff employed by schools and catering companies following the introduction of UPFSML. When asked whether the school/trust paid these new staff the London Living Wage, the majority of schools responding to the item (30 out of 37) said that they did, three said they did not, and four did not know. However, 82% of 210 respondents to the survey did not respond to this item, which may be because they did not take on new staff. Our case study interviews with caterers suggested that some local authorities insist on the London Living Wage within their contracting, while several catering staff told us that they did not receive a London Living Wage (which was within the guidance produced by the GLA, but not a condition of funding). Employment was often of local people, including family members of children within schools.

While we did not conduct a systematic analysis of supply chains, case study data includes reference to some schools working with local restaurants to achieve economies of scale with suppliers. Schools also grouped together in order to negotiate contracts with both caterers and suppliers, sometimes within a MAT or Diocese, but also frequently through informal alliances between schools. Another influence we saw on local economy was where suppliers were deliberately chosen in order to provide confidence to families around religious meal requirements, for example, the supply of halal meat. Some schools tried to source locally as a matter of principle, while others reported that availability, price, and quality made this difficult.

9. Are there any other impacts or unintended consequences of UPFSML on schools and school communities (including impact on Pupil Premium enrolment)?

We have subsumed the findings around impacts on schools and communities within reporting on IPE research questions 5 to 8 above. We however here, report on an issue raised by schools, which sits outside of the questions considered so far.

Registration for means-tested FSM and identification of need

When asked: 'Do you believe that the availability of UPFSML has reduced the number of children registered for means-tested FSM at your school?' 55% of respondents to the school survey (n=210) said 'yes', 29% said 'no', and 16% said 'don't know'. Comments around this question suggested that some thought it was too early to see this change, while several already employed methods to ensure that this was not the case, for example, by asking all parent/carers to share information around eligibility for means-tested funding each year (citing support for clubs, trips, and additional support as benefits). This was noted by some parents also, for example, citing support for clubs, trips, and additional support as benefits. This was noted by some parents also, for example:

> *We get emails every term asking us to apply for free school meals, just everyone, just apply, stick your details on this form and just find out if you're eligible for free school meals because the school is losing out on [P]upil [P]remium I think because students aren't applying for free school meals.* (Parent, Online interview)

School representatives responding to the survey were concerned about the decline in Pupil Premium allocation, referencing the parallel around the earlier introduction of FSM for infants. Registration for means-tested FSM was the primary gateway for accessing disadvantaged funding in England in 2023/2024. Once a pupil was registered for means-tested FSM, they became eligible for Pupil Premium, and their status also informed allocations in the National Funding Formula and

entitlements such as home-to-school transport. The policy would therefore, have only affected those newly eligible for FSM within the year evaluated. School representatives in survey responses and case study interviews anticipated confusion around FSM and Pupil Premium funding, and that it may be exacerbated by language barrier among parents and carers. The initial policy announcement suggesting that UPFSML funding was for a single year further contributed to concern that reduced registration for means-tested FSM would negatively influence school budgets. This concern was not borne out in DfE school census data[25] which suggest that this concern was not reflected in the actual level of registration for Pupil Premium in London, between 2022/2023 and 2023/2024. We report it here, as a concern that was prevalent within schools during implementation, however.

A related issue identified by some schools was the increased difficulty in identifying families in need, where previously lunch debt had been an indicator. One headteacher explained this in detail:

> *I think it is a really ill-thought-out initiative. Like it really has, if anything for us, made it more difficult to identify those children that are struggling or those parents that are struggling because historically what would've happened and I'm sure this is true in many schools, that you would have your online parent payment platform.* (Headteacher, Case study interview)

Other headteachers expressed a concern around knowing, which families were eligible for Pupil Premium, not just because of the provision to support them within their school budgets, but because they felt a responsibility to work closely with other agencies and charities to support families.

In the first year of the policy change (2023/2024), we saw some boroughs introduce or extend auto-enrolment policies and strategies, to identify families eligible for means-tested FSM, Pupil Premium, and other benefits. This practice was expanded further during 2024/2025 (and will be reported on in our final report, which includes data from the second year of the policy implementation).

[25] Accessed through https://explore-education-statistics.service.gov.uk/

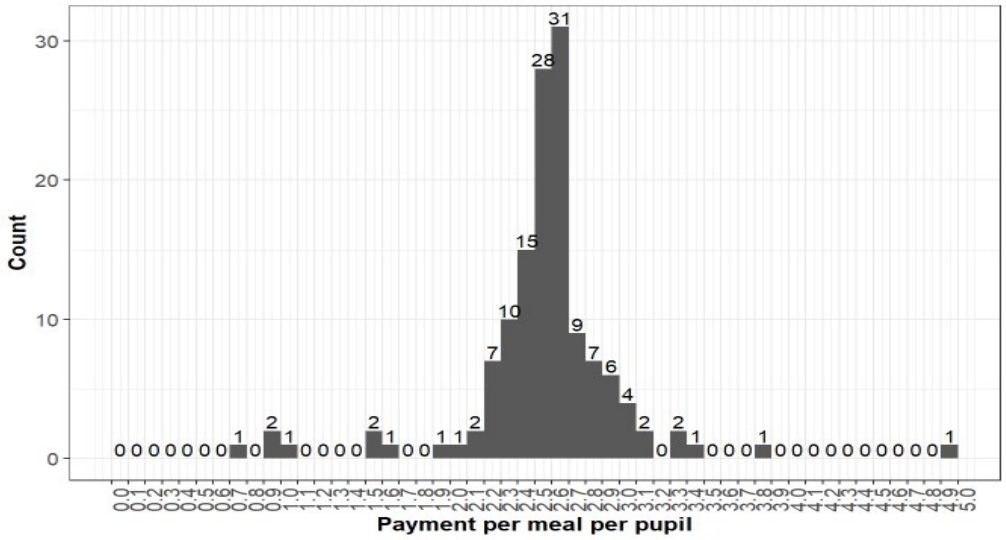
Cost evaluation results

The GLA allocated £130m to cover the costs of the policy in 2023/2024.[26] In 2024/2025 the equivalent figure was £139.45m.[27] In 2025/2026 the equivalent figure was £147.5m.[28] The total cost of the policy across the first three years was therefore, £416.95m.

The GLA estimated there to be 270,000 Key Stage 2 pupils in state-funded schools in London, who were not eligible for means-tested government funding of school meals. Dividing the costs over three years by the number of pupils eligible in any given year gives a three-year cost per child of £1,544.26.

To evaluate the cost to schools, we asked respondents to our school survey (n=135) to specify the costs per meal. This gave a mean cost of £2.58 per meal (with an SD of 46p and a range of 70p to £4.90 per meal).

Figure 27: Reported cost per meal to schools (n=135)



In a further item of the school survey asking whether the school budget subsidised or funded Key Stage 2, 44% of respondents (n=209) said 'yes', while 43% said 'no' (13% did not know). These findings suggest that a large minority of schools were spending more per meal than the £2.65 funded by the GLA for 2023/2024 school year. Headteachers and catering staff indicated in case study interviews that the rising cost of food made it difficult to provide meals at the funded cost.

As discussed under IPE research question 6, 30% of schools responding to our survey indicated that they made changes to the catering model (how lunch is purchased and prepared) to scale up for UPFSML. Open-text responses following this item indicated the additional catering equipment needed to be purchased, including cutlery, trays/plates, and cups, but also new ovens in some cases. Respondents also indicated that some lunchtime supervisors were given additional hours to cope with the increased number of meals and time for them to be eaten. Only 18% of survey respondents indicated that they had employed new staff, but this may not account for increases in staff by catering companies. It should be noted that contracting and financial arrangements between schools, caterers, and local authorities varied, and consequently so too did who met any additional costs associated with the policy initiative.

[26] See: www.london.gov.uk/md3146-primary-school-universal-free-schools-meal-provision-2023-2024
[27] See: www.london.gov.uk/who-we-are/governance-and-spending/promoting-good-governance/decision-making/directors-decisions/dd2703-universal-free-school-meals-programme-2024-25
[28] See: www.london.gov.uk/md3332-primary-school-universal-free-school-meals-provision-2025-2026#:~:text=This%20Mayoral%20Decision%20seeks%20approval,schools%20for%20the%20academic%20year

Conclusion

Table 14: Key conclusions

Key conclusions
Ten months after introduction of the UPFSML policy, pupils in London boroughs that gained access to universal FSM made no measurable additional progress in their Key Stage 2 tests on average, compared to a group of similar pupils for whom access to FSM did not change. This result has a high-security rating.
The IPE showed that the introduction of UPFSML was perceived positively by families, particularly those who fall just above the threshold for means-tested support. Many families reported experiencing reduced financial stress, reduced stress in providing packed lunches, and increased well-being from knowing that their child has access to a hot meal each lunchtime.
The UPFSML policy was implemented with high fidelity, with almost all schools offering a choice of hot meals to all pupils. Lunchtime catering models mostly stayed the same, with a small minority of schools or caterers taking on additional staff or needing to upgrade kitchens. Despite the per pupil allowance exceeding the national means-tested FSM allowance, nearly half of schools surveyed indicated that the cost of delivering school meals exceeded the first year of allocated funding. Evidence suggests that financial pressures were compounded by rising food prices and challenges in changing contracting arrangements in the first year of the policy.
Evidence suggested that uptake of the UPFSM was consistently high across all groups, with around 90% participation among newly eligible children and strong engagement for children with dietary needs, religious meal requirements, and SEND. Children previously eligible for means-tested FSM also showed increased uptake. However, uptake was slightly lower among older year groups. The high uptake across all groups led to increased attention to lunchtimes by schools. Schools used the policy initiative as stimulus to improve lunchtime processes, spaces, and opportunities to promote pupil socialisation, including the learning around etiquette and responsibility. Evidence from case studies suggested that children eating together supported them trying new foods, interacting with their peers, and greater inclusion.
Pupil choice and agency emerged as a key factor in moderating the success of the UPFSML policy, playing a vital role in uptake, satisfaction, and nutritional benefit. Although reduced cost and family stress played a key role, the choices available to children was most commonly cited as the driving factor in family decisions around FSM, with older pupils being more likely to express dissatisfaction at choices available (correlating to lower uptake). Where children could choose meals at the point of service, they were more likely to be influenced by peers and lunchtime staff to try new foods, and more able to respond to their preferences on each given day. This also reduced family and administrative stress associated with pre-ordering meals.

Impact evaluation and IPE integration

Evidence to support the Theory of Change

In review of the Theory of Change, we see good evidence that the proportion of children taking FSM increased across all demographic and socio-economic groups. However, uptake was lower for Year 6 (88% in the Arbor MIS sample), and these are the pupils who undertook the Statutory Assessment Tests (SATs) on which our impact evaluation focused.

Our evidence shows that reduced household expenditure on FSM was welcomed across the target population, but the impact of this on household financial stability was influenced by the financial circumstances of each household. The policy likely provided most benefit to the relatively small, yet significant, group of families who were not eligible for means-tested government-funded FSM, but for whom the relatively modest cost of school meals or packed lunches significantly impacted their financial stability and associated stress. While an important and positively received outcome of the policy initiative, the financial benefits are likely less pronounced when looking across the entire target population. Likewise, the stress families experienced through poverty-related stigma and shame were likely most significant for this small group of families within the overall population. Our case study and parent interview data also suggest that schools were already taking measures to support these families, for example, by providing meals anyway or absorbing lunchtime debt. The majority of families indicated a reduction in family stress associated with providing packed lunches, although in some cases the need to select and pre-order lunches still created stress. We were not able to discern direct impact on parental work absence using the methods we deployed.

Parents and school staff alike expressed reduced stress in knowing that each child has access to a hot nutritious meal. The evidence around improved child nutrition and meal quality is mixed however, and again it must be recognised that the majority of children were eating lunch before the policy was introduced (including those being supported by schools to do so). Nutrition in the school day is also related to the choices that children and families make, and how much of the meal is

actually eaten. The association between nutrition and improved learning and learning behaviours are likely subtle, and reports from teachers suggested that they had not seen a discernible improvement in these as a result of the policy. A large number of factors influence the learning of children and their subsequent attainment. This may explain why our impact evaluation did not find an effect on pupil achievement. It should be kept in mind that we report on the impact of a single year of exposure to universal FSM. Future publications will report on the impact of additional years of exposure. Nevertheless, our findings are consistent with those from a recently published meta-analysis, which found that universal FSM programmes have an average effect of 0.01 SD (+0 months) on test scores (Ayllón and Lado, 2025).

Schools and catering companies adapted to the policy initiative well, with guidance from local Authorities and the GLA. Many were able to scale-up provision of hot meals with only moderate increases in staff and equipment. Further improvements in school meal services were limited by the initial announcement of a single year of the policy, by existing contracting, by increasing costs of ingredients and services and, significantly, by the funding not covering the additional costs of meals for a large minority of schools. The impacts on local economy and environmental sustainability were subsequently minimal. However, the increased attention to school lunches resulted in development of processes and practices around lunchtime and highlighted the social and educational benefits of children eating together. We suggest that this has benefits in promoting inclusion and in children trying new foods. We contend that these are most pronounced where children are able to choose the meals they eat at the point of service. Having said that, our impact evaluation findings on attendance were inconclusive. This means we cannot reach a firm conclusion about whether the benefits around inclusivity detected in our process evaluation resulted in an improvement in attendance. From the evidence within our IPE, we suggest that pre-ordering systems can be a source of stress for families and administrators and offset the benefits of no longer needing to chase lunch debt.

Interpretation

The above review of the Theory of Change supports interpretation of the impact evaluation findings through those within the IPE.

The lack of any detectable effect on Key Stage 2 test scores may be attributed to several interrelated factors. First, uptake of FSM was lower among Year 6 pupils compared to younger year groups, potentially limiting the policy's influence on those undertaking tests within our evaluation. Second, the policy was only in place for a single academic year, whereas SATs assess cumulative learning across the entire primary phase, making short-term effects potentially difficult to detect. Third, the most pronounced benefits of the policy likely related to a relatively small group of families who were not previously eligible for means-tested FSM but struggled to afford lunches, limiting the scale of impact across the whole-target population. Additionally, many schools and communities were already supporting families in need, which may have mitigated the policy's effect on children from these families. Moreover, learning outcomes are shaped by a wide range of factors beyond nutrition, and the policy's influence on dietary intake may have been modest. Finally, even within the school day, nutrition is affected by what children choose to eat and how much they consume, which is not solely determined by the availability of free meals. Our findings are consistent with Ruffini (2022), who found no overall effect of universal FSM on attainment. Small positive effects were reported by Schwartz and Rothbart (2020), Holford and Rabe (2022; 2025), and Kitchen *et al.* (2013).

The IPE demonstrates that the introduction of UPFSML has delivered perceived benefits for children and families, particularly those just above the threshold for means-tested support. Families reported reduced financial and emotional stress, especially from no longer needing to prepare packed lunches, and expressed increased well-being from knowing their children receive a hot, nutritious meal each day. Uptake was consistently high (around 90% among newly eligible children) and strong across groups with dietary, religious, and SEND, despite being slightly lower among older pupils. Our case study evidence suggest that this widespread participation has elevated the status of lunchtime within schools, supporting greater community cohesion, and educational opportunities through shared meals, peer interaction, and social learning. Some schools responded by improving dining environments and lunchtime routines, promoting inclusion and pupil responsibility. Crucially, pupil choice and agency emerged as central to the policy's success, with children more likely to try new foods and eat well when able to choose meals at the point of service, reducing both family stress and administrative burden.

Limitations and lessons learned

As with all research, the present study has a number of limitations. First, the impact evaluation was not able to establish parallel pre-treatment trends for certain outcome measures and subgroups, for instance, we lack strong evidence that outcomes in UPFSML and non-UPFSML areas schools were following similar trajectories in advance of the policy implementation in some cases. This means that some of our estimates cannot be interpreted as the causal impact of the policy. We tried to mitigate this through exploring different specifications and comparison groups, as well as providing extensive graphical analysis of pre-treatment trends. However, in some cases we could not find any specification or comparison group that showed parallel trends. Second, our process evaluation could not establish a representative sample for either our survey or case study work. We have tried to mitigate this through achieving a large and diverse sample. Nevertheless, the findings cannot be considered entirely representative of London as a whole. Third, London is an unusually affluent and diverse city. The findings may therefore, not generalise to the rest of England or to other cities or countries.

Having completed the analysis for this interim report, we have two reflections that may be useful for other evaluators. The first is that it is hard to anticipate which, if any, difference-in-difference or triple-difference specifications will demonstrate parallel trends in the pre-treatment period. When pre-registering the primary analysis, it may therefore, be preferable to specify principles for which model will be used (e.g. the model with the smallest in-time placebo coefficients) rather than specifying an a priori preferred specification (e.g. the triple-difference). Related to this, when using very large samples to study interventions likely to have small effects such as universal FSM, it may be desirable to pre-specify rules for when parallel trends will be considered to be present/absent. Our very large sample meant that even substantively trivial deviations from 0 in our in-time placebo tests were statistically significant. We therefore, relied on: i) comparisons of the magnitude of the in-time placebo tests with the magnitude of the impact estimates; and ii) comparisons of the magnitude of the in-time placebo tests with the impact estimates from other evaluations of similar policies. Where possible it may be preferable to pre-register such principles for interpreting the in-time placebo tests.

The IPE was limited by the scale of engagement with the approximately 1,800 state-funded primary schools in London (including special schools). Our school survey had 210 responses, giving a sample of approximately 11.7% of schools. We recognise that respondents may have been those most engaged with the policy initiative, and that any form of sampling is limited in understanding the implementation and effects of a large scale and complexity policy initiative. Case studies engaged with 14 schools across ten London boroughs, which does not constitute a representative sample and again, is likely to be made up of those most willing to speak about the policy implementation in their setting. The policy was estimated to influence approximately 270,000 Key Stage 2 pupils in London, whereas our parent survey achieved 1,475 responses, a sample of approximately 0.55%. We know that some London boroughs were under-represented within this and are not able to establish how well stratified the sample was in relation to socio-economic status of families. By triangulating evidence from these sources, we attempted to evaluate the likely impacts on the overall population of families and schools, but we also attempted to engage with as wide a breadth of schools and families as possible, in order to understand how the policy interacted with as wide a range of factors as possible, within a relatively small-scale evaluation. Although we actively sought to include them in case studies and online interviews, we did not deploy specific methods to define or engage with families in the band of financial circumstances where families were not eligible for means-tested FSM, but were struggling to provide or pay for nutritious lunches for their children (as the Impact on Urban Health [2024] study did). These families are likely to have been the ones for whom the policy initiative had the most impact.

Future research and publications

This interim report provides the findings from a quasi-experimental ITT evaluation of the effects of the policy on educational achievement and school attendance in 2023/2024. It also reports on an extensive IPE.

A final report, to be published in 2026, will add two additional sets of findings. First, it will include analogous findings to the interim report but for the second year of the policy (2024/2025). Second, it will add a range of additional secondary outcome measures derived from the Understanding Society survey: behaviour measured using the Conduct Problems subscale and Peer Relationships subscale of the Strengths and Difficulties Questionnaire (SDQ); attention measured using the Inattention subscale of the SDQ; Well-being measured using the item: ‘Which best describes how you feel about your life as a whole?’;

subjective financial distress measured using the item: 'How well would you say you yourself are managing financially these days?', and supermarket food expenditure measured using the single item: 'Amount spent on food from supermarket'.

IPE findings from the second year of the policy initiative will focus on how processes have continued to develop, as well as the longer-term effects of the policy on schools and pupils within them. This will be achieved through revisits to case studies, a broadening of case study visits to include schools from all London boroughs, and a follow-up survey and online interviews with school leaders.

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Appendix A: EEF cost rating

Appendix Table 1: Cost rating

Cost rating	Description
£ £ £ £ £	*Very low:* less than £80 per pupil per year.
£ £ £ £ £	*Low:* up to about £200 per pupil per year.
£ £ £ £ £	*Moderate:* up to about £700 per pupil per year.
£ £ £ £ £	*High:* up to £1,200 per pupil per year.
£ £ £ £ £	*Very high:* over £1,200 per pupil per year.

Appendix B: Security classification of evaluation findings

To be added by EEF following peer review

Rating	***Criteria for rating***			***Initial score***		***Adjust***		***Final score***
	Design	***MDES***	***Attrition***					
5	*Randomised design*	***<= 0.2***	***0–10%***					
4	***Design for comparison that considers some type of selection on unobservable characteristics (e.g. RDD, Diff-in-Diff, Matched Diff-in-Diff)***	*0.21 – 0.29*	*11–20%*	*X*				*4*
3	*Design for comparison that considers selection on all relevant observable confounders (e.g. Matching or Regression Analysis with variables descriptive of the selection mechanism)*	*0.30 – 0.39*	*21–30%*			*Adjustment for threats to internal validity* ***[0]***		
2	*Design for comparison that considers selection only on some relevant confounders*	*0.40 – 0.49*	*31–40%*					
1	*Design for comparison that does not consider selection on any relevant confounders*	*0.50 – 0.59*	*41–50%*					
0	*No comparator*	*>=0.6*	*>50%*					

Threats to validity	***Risk rating***	***Comments***
Threat 1: Confounding	*Moderate*	*Sufficient evidence is presented that parallel trends assumption holds; there is no matched diff-in-diff; placebo tests used.*
Threat 2: Concurrent interventions	*Low*	*No evidence to suggest there are concurrent interventions in other parts of England—although there is no discussion of this in the report.*
Threat 3: Experimental effects	*Low*	*Extremely unlikely to have occurred.*
Threat 4: Implementation fidelity	*Low*	*The intervention was implemented as planned as suggested with multiple sources of data. There may be a small concern around selection bias of those*

		who took part in IPE activities, data from school management systems represents a small amount of schools. The threat, however, is considered low as there is no evidence to suggest fidelity was low.
Threat 5: Missing data	*Low*	*Total missing data is low (about 7% – 326k excluded from about 4.4). The Statistical Analysis Plan planned to use multiple imputations but this was not possible due to limitations on computational power in the ONS SRS. This is, therefore, a minor threat due to difficulty in assessing if missing data is a cause for concern. This is graded low however, given overall amount of missing data is low.*
Threat 6: Measurement of outcomes	*Low*	*Key Stage 2 is a well-established outcome measure.*
Threat 7: Selective reporting	*Low*	*Results reported transparently with extensive supplementary material.*

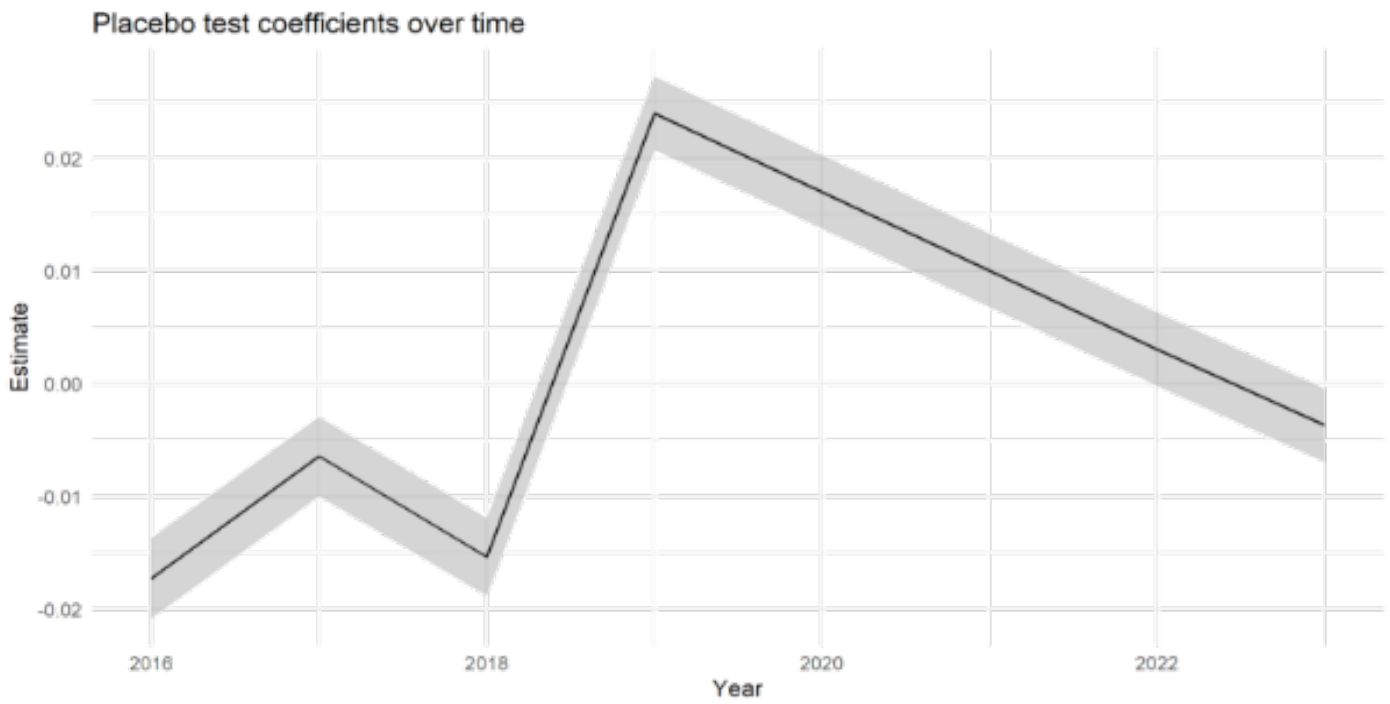
Appendix C: Effect size estimation

Appendix table 1: Effect size estimation

Outcome	Population SD
Key Stage 2 average point score	7.165
Attendance	0.059

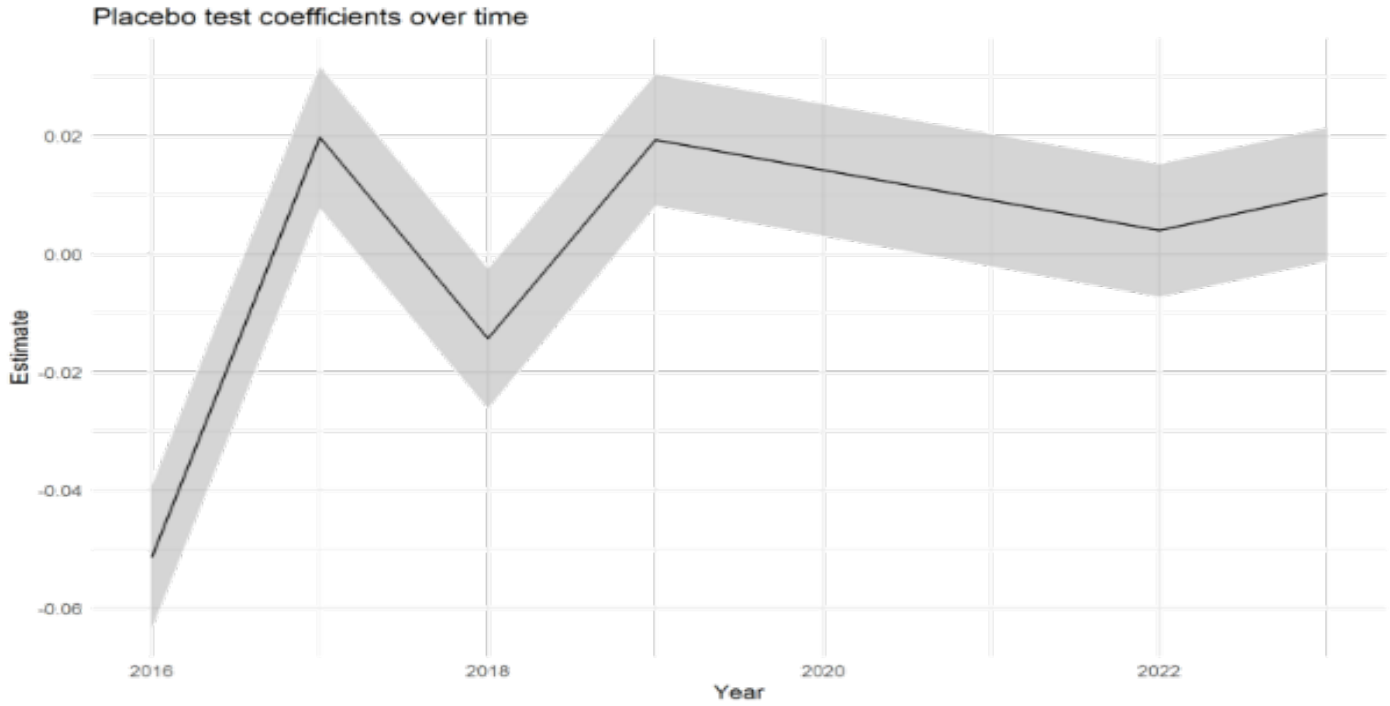
Appendix D: Placebo tests

Appendix Figure 1: Placebo tests in pre-treatment years for primary outcome difference-in-difference



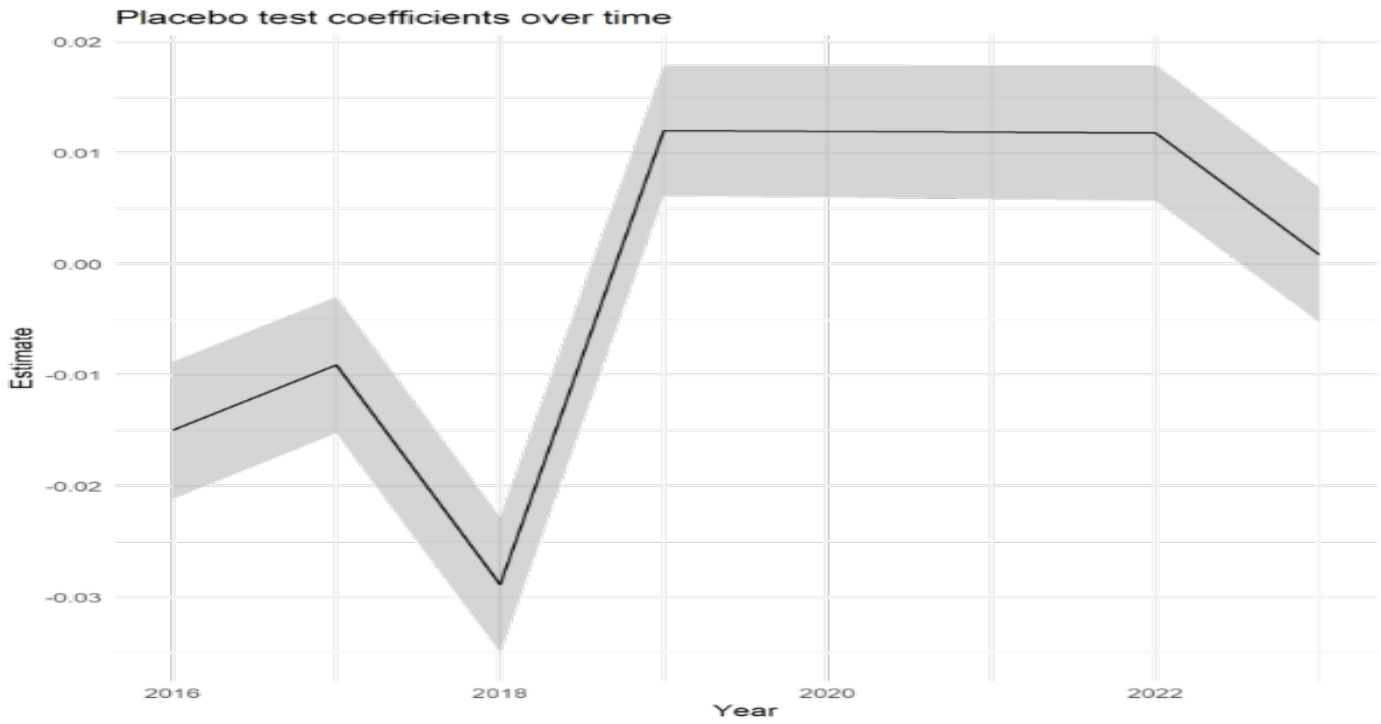
Note: Placebo test estimates obtained from same linear regression model as impact estimate, except with change to treatment dummy to estimate 'impact' during a pre-treatment year. Underlying models for each pre-treatment year reported in Figure 9 Models.csv.

Appendix Figure 2: Placebo tests in pre-treatment years for primary outcome triple-difference



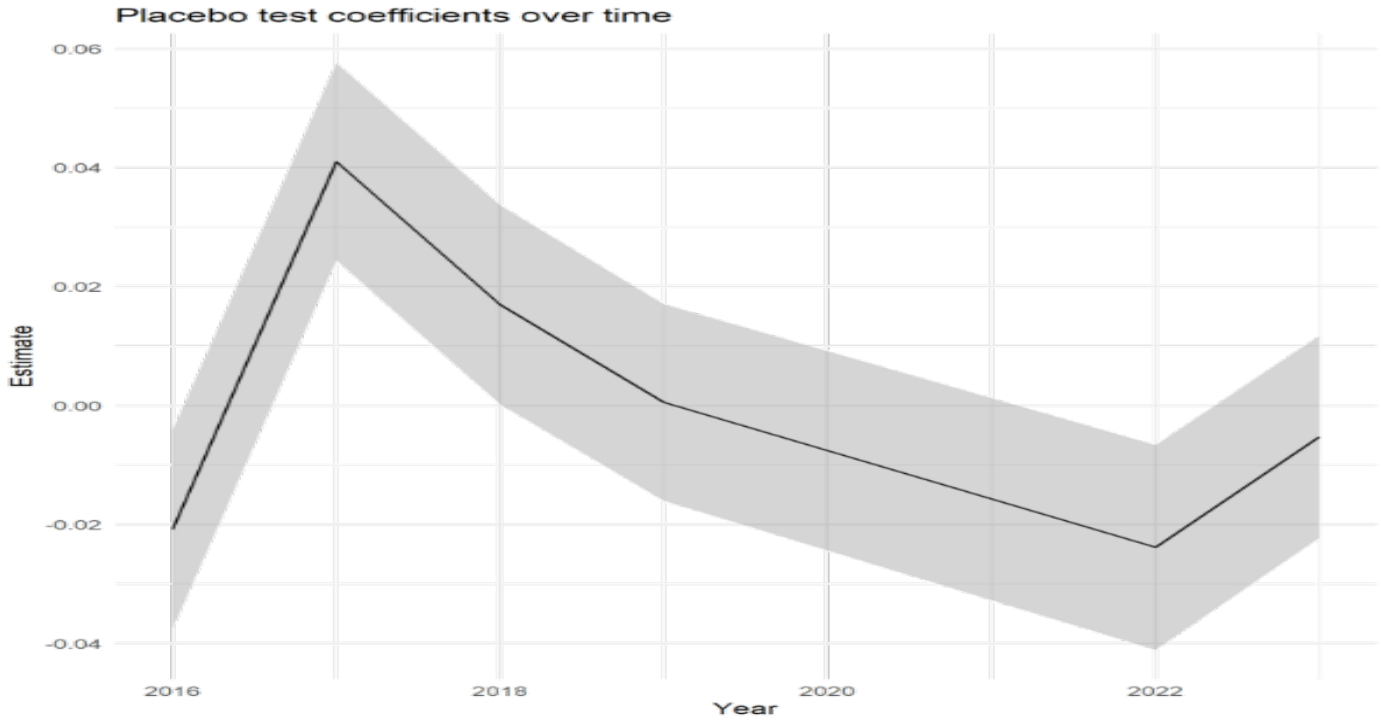
Note: Placebo test estimates obtained from same linear regression model as impact estimate, except with change to treatment dummy to estimate 'impact' during a pre-treatment year. Underlying models for each pre-treatment year reported in Figure 10 Models.csv.

Appendix Figure 3: Placebo test estimates for primary outcome for difference-in-difference for already treated pupils

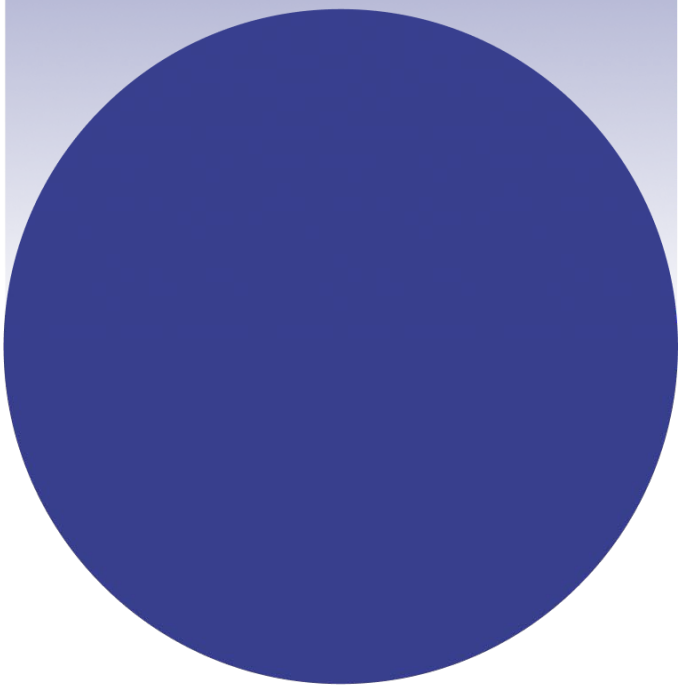


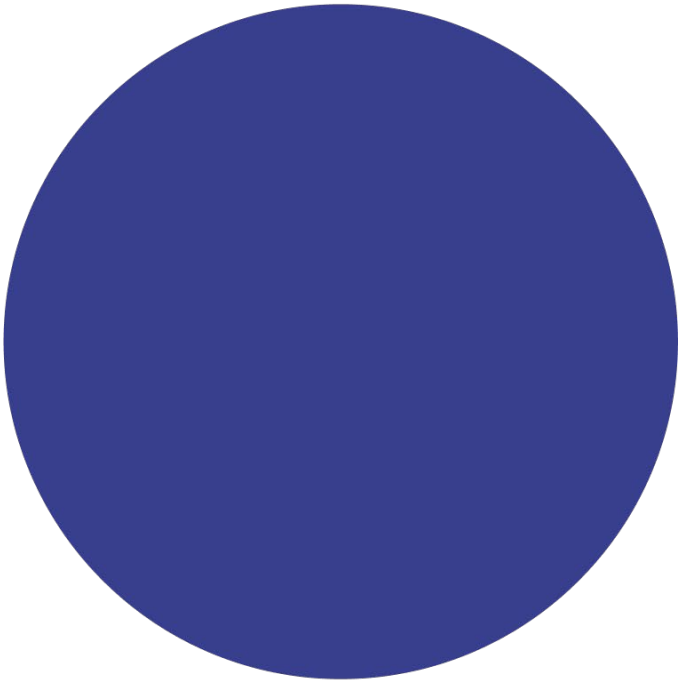
Note: Placebo test estimates obtained from same linear regression model as impact estimate, except with change to treatment dummy to estimate 'impact' during a pre-treatment year. Underlying models for each pre-treatment year reported in Figure 13 Models.csv.

Appendix Figure 4: Placebo test estimates for primary outcome for triple-difference for already treated pupils



Note: Placebo test estimates obtained from same linear regression model as impact estimate, except with change to treatment dummy to estimate 'impact' during a pre-treatment year. Underlying models for each pre-treatment year reported in Figure 13 Models.csv.





Education Endowment Foundation

The Education Endowment Foundation
5th Floor, Millbank Tower
21–24 Millbank
London
SW1P 4QP

https://educationendowmentfoundation.org.uk

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