## Evaluation of the Free School <br> Meal Pilots

## Baseline Report

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## Executive summary

## The purpose of this report

This is the baseline report of the evaluation of the Free School Meal Pilots. It presents early findings from a survey of parents and children who were classified as non-takers of school meals in Summer term 2009 (the term before the pilots began), analysis of associated administrative data for schools and pupils and a survey of school catering managers. The evaluation covers primary school pupils in Newham and Durham (Pilots A and B, universal FSM) and secondary school pupils in Wolverhampton (Pilot C, extended eligibility), plus comparison samples from 15 local authorities that are not involved in the pilots.

The findings in this report will provide background information for the administration of the FSM pilots and are not intended for publication. Under the evaluation design, the findings of this first survey will need to be compared with those of a follow-up survey in 2011, with pupils in pilot areas being matched to pupils with similar characteristics in comparison areas, so that the impact of the pilots can be inferred through a 'difference-in-differences' methodology. It is important to note that the sample for the survey has a particular focus - it covers non-takers of school meals in selected year groups and is designed to include higher numbers of disadvantaged pupils - and is not intended to be representative of the whole population of pupils. Therefore, although the survey provides indications of important issues in school meal provision and pupils' diets, it does not provide prevalence estimates for population groups.

The key findings of this report are as follows:

## Take up of meals and eligibility for FSM

- Summer 2009 Schools Census data on FSM eligibility (covering those pupils who were both entitled to have FSM and registered for them) shows that the pilot LAs have an above average number of pupils who are eligible for FSM. In Newham and Durham, 29\% and 19\% of primary school pupils respectively are eligible for FSM compared with the average of $16 \%$ for England. In Wolverhampton, 18\% of secondary school pupils are eligible compared with the average of 13\% for England.
- Take up of school meals amongst primary school pupils in Newham (50\%) and Durham (49\%) is higher than the average for England (39\%), while take up among secondary school pupils in Wolverhampton $(30 \%)$ is lower than the average for England (35\%; source: SFT).


## Attitudes to school meals

- Primary school parents in Newham and Durham and their comparison areas reported that the main reasons why their children did not take school meals were that there were not enough meals that their child liked, that the choice of meals was too limited, that they could not afford them or that their child's friends did not take the meals.
- Secondary school parents and pupils in Wolverhampton and its comparison areas reported that the main reason for not taking school meals was that it took too long to get served. Pupils preferring other lunchtime activities was also an important factor. Otherwise, the reasons given were similar to those for primary school pupils (tastes, choice and affordability).
- Parents in Newham, Durham and Wolverhampton had generally positive views of the quality and healthiness of meals though their views about the choice of meals that was available were
more mixed. However, the incidence of 'don't know' answers at these questions was quite high (about a fifth), suggesting that many parents lacked awareness of what food was delivered.
- Parents were evenly divided as to whether packed lunches were better for their children's health, school meals were better or they were both about the same. Fewer than a quarter agreed with the statement "parents whose children have school meals do not need to worry so much about what their children eat at home".


## Awareness of the pilots

- Nearly all parents in Newham (93\%) and Durham (97\%) were aware of the forthcoming universal FSM pilots and about three quarters said that their child would definitely or probably have the free meals.
- Under half of parents in Wolverhampton (39\%) were aware of the forthcoming pilots of extended eligibility for FSM and a little over half said (55\%) that their child definitely or probably would have the meals if they were eligible.


## Delivery of meals

- The caterer interview identified some differences in delivery of school meals between Newham and Durham prior to the pilots. Newham's meals were mostly decided by a LA in-house provider whereas Durham's were mostly decided by a private catering company. Whereas pupils in Newham received menus in advance and could decide whether to take meals on the day, most pupils in Durham viewed when they were displayed in the school and had to choose in advance whether to take meals (for weekly, half-termly or termly periods).
- In Wolverhampton, there was more diversity in the delivery of meals. Six out of nine caterers reported that there was enough room for pupils to sit down for lunch while three said that there was not. Four had the same lunch times for all pupils while five had different sittings. Some reported changes in delivery in the past year such as more time available to take lunch, increased space available for eating lunch and increases in the numbers of meals served, while others reported no change. Most reported that the number of healthy options had increased.
- About half of the Newham schools allowed some pupils to leave the school premises at lunchtime while only one Durham school allowed this. In Wolverhampton, some schools allowed some pupils to leave the premises at lunchtime whereas others did not.
- The time that pupils had to wait to be served in Wolverhampton secondary schools was estimated by caterers as six minutes, which was longer than for primary schools in Newham and Durham (four minutes) but shorter than for comparison secondary schools (11 minutes). A majority of parents in Wolverhampton (61\%) and comparison schools (56\%) felt that the time taken to serve pupils was fairly poor or very poor, a strong negative finding. Fewer parents in Newham (20\%), Durham (29\%) or comparison primary schools had this concern.


## Pupil's eating habits

- Among pupils who were classified as non-takers of school meals and covered by the survey, nearly all had packed lunches, although $9 \%$ of pupils in Newham had lunches at home every day.
- While three quarters of surveyed pupils in Wolverhampton had packed lunches, a wide variety of other arrangements were also made, including taking school meals on selected days. Among those who occasionally had school meals, three quarters decided this on the day while a quarter planned ahead.
- On the most recent day before the interview, the proportion of pupils having fruit was lower in Newham (44\%) than in Durham (65\%), as was the proportion having crisps ( $20 \%$ compared
with $49 \%$ ). In both areas, $28 \%$ of pupils had a soft drink but consumption of water ( $25 \%$ in Newham, $19 \%$ in Durham) and fruit juice ( $23 \%, 32 \%$ ) was also common.
- On the most recent day before the interview, the proportion of Wolverhampton pupils who had crisps (45\%) was twice as high as the proportion who had fruit ( $21 \%$ ) and the proportion having a soft drink ( $30 \%$ ) was twice as high as the proportions having water ( $15 \%$ ) or a fruit juice (14\%).
- In Newham, 35\% of pupils consumed food and drink during the morning (after breakfast), 9\% during the afternoon, $14 \%$ on the way home from school and $66 \%$ on arrival home from school. Pupils in Durham and Wolverhampton had similar patterns of consumption.
- Though only a minority of these pupils had a hot meal at school (29\% in Newham, 18\% in Durham, 15\% in Wolverhampton), most did have a hot meal in the evening (89\%, 94\%, 88\%).


## Other evaluation evidence

In addition to the findings presented above, the study collected a number of other measures that will be repeated when the pilots are underway so that the impact of the pilots can be identified through comparative analyses. These include:

- Pupil data on attainment for Foundation Stage, Key Stages 1, 2 and 4 and absences (from the Schools Census).
- Frequency of pupil's consumption of selected food types, types of food consumed for evening meals (from the survey).
- Parents' perceptions of child's behaviour (from the survey).
- Pupils' body mass index (from the survey).
- Household characteristics including parental income and receipt of benefits (from the survey).

Although baseline findings for these measures are briefly described in this report, they are not of strong interest and so are not covered in this summary. Trends in these measures will be explored in detail in the impact analysis after the follow-up survey in 2011. More information about the sample selection procedures and response rates for longitudinal survey can be found in the technical appendix to this report.

The implementation study has started with scoping interviews with LA and PCT representatives in pilot areas in autumn 2009. Its first report will be delivered in December 2009.

## 2 Introduction

This is a baseline report for the evaluation of the free school meals (FSM) pilots. It has been prepared on behalf of the Department for Children, Schools and Families (DCSF) and the Department of Health (DoH) by a consortium of the National Centre for Social Research (NatCen), the Institute for Fiscal Studies (IFS) and Susan Purdon of Bryson Purdon Social Research (BPSR).

This section sets out the FSM policy and the background to it, outlines the design of the evaluation and explains what research findings are included in this report.

### 2.1 The free school meals pilots

In September 2008, the Government announced an initiative to pilot an extension of FSM entitlement in three local authorities (LAs) in England. The $£ 20$ million pilots are a joint initiative between the Department for Children, Schools and Families and the Department of Health, with matched funding from participating LAs.

Two different approaches to extending provision were to be tested. In two LAs in deprived areas (Pilots A and B), universal FSM would be offered to all primary school children. In a third LA (Pilot C), the eligibility rules for FSM entitlement would be extended to cover pupils in primary and secondary schools whose families either meet the existing income criteria or were on Working Tax Credit where their annual income did not exceed $£ 16,040$.

The following pilot areas were subsequently selected:

- Pilots $A$ and $B$ (universal FSM): Durham and Newham
- Pilot C (extended criteria): Wolverhampton

The pilots were launched in the Autumn term 2009 and will run for two school years, finishing in the Summer term 2011.

### 2.2 Background to the policy

The rationale for the FSM initiative is that access to FSM ensures that children eat at least one balanced nutritious meal each school day, regardless of family income. Although there are many different reasons for not taking school lunch, the average costs (roughly $£ 1.67$ in primary schools and $£ 1.77$ in secondary schools) are thought likely to be a deterrent for many families, particularly those on low incomes whose children need school meals the most. Previous research has suggested that take up of school lunches may have benefits for child health and behaviour as well as impacting positively on eating habits outside of school.

Universal entitlement to school meals was introduced under the Education Act 1944 and remained in place for nearly 40 years until the 1980 Education Act removed the obligation on LAs to provide school meals for all children. Only pupils from families supported by Supplementary Benefit (now Income Support), incapacity benefits, and other selected tax credits retained their entitlement. Under the 1986 Social Security Act, entitlement to FSM was reduced to children in households receiving Supplementary Benefit, with the cost of school meals notionally included within Family Credit (CPAG, 2005).

In the 1990s, entitlement to FSM was extended under the Labour government with the introduction of new tax credits. In 2003, when Child Tax Credit replaced Working Families Tax Credit, an additional 75,000 children became entitled to FSM. According to current criteria, an estimated 19\% of pupils are entitled to FSM (London Economics, 2008).

To receive FSM, pupils whose families meet the income criteria must be registered with the LA. Recent figures show that approximately $15.5 \%$ of primary pupils and $13.1 \%$ of secondary pupils are registered for FSM (London Economics, 2008). This means that an estimated $24 \%$ of pupils deemed to be entitled to FSM are not registered with their LA and are therefore not eligible, translating to approximately 334,000 pupils in England (London Economics, 2008).

There is also a gap between the number of pupils registered for FSM and those who choose to take up school meals. A substantial proportion of pupils (an estimated $16 \%$ of primary and $25 \%$ of secondary pupils) who are registered, and therefore eligible for FSM, do not take up their entitlement. The rates of registration and take-up vary across the country (London Economics, 2008).

Among the many reasons for non take-up of FSM reported in the research literature, stigma is a recurring theme. According to the School Food Trust survey in 2007/8, a minority of pupils took school lunches ( $43 \%$ in primary schools and $38 \%$ in secondary schools, of which a third were free) which may help to explain the reluctance of some parents and pupils to take up their entitlement. However, the evidence from recent surveys of school meals shows that take up is gradually rising in primary schools and has stabilized in secondary schools following a 5\% decline between 2005 and 2007 (Nicholas et al, 2008), which may reflect recent campaigns to improve the quality of school meals.

### 2.3 The evaluation and its aims

The objectives of the evaluation are to investigate and report on:

1. How and to what extent each pilot affects take-up of school lunches and how this varies amongst different family backgrounds.
2. The impact of the changes in take-up on children's outcomes including diet (at school and at home), health, behaviour, engagement of pupils and attainment.
3. An understanding of the process of implementing the pilots to help identify the most effective methods of expanding provision of school meals.
4. The value for money of expanding the offer of free school meals, based on a comparison of the costs and benefits

These four objectives will be delivered through an evaluation that lasts for more than two years and concludes with a final report in March 2012. It is therefore appropriate to identify which elements of these objectives will be addressed in this baseline report, and which will follow later. Figure 1.1 summarises this.

Figure 1.1 Evaluation objectives and to what extent these will be delivered at the baseline report and later.

| Objective | What will be delivered at <br> baseline report? | What will be delivered at <br> subsequent reports? |
| :--- | :--- | :--- |
| How pilot affects take-up | Baseline take-up figures for <br> Summer term 2009 for pupils <br> selected for the longitudinal <br> survey. Overall take up figures <br> at LA level for periods before <br> the launch of the pilots. | Take-up amongst sampled <br> pupils for periods after the <br> launch of the pilots, with an <br> analysis of changes in take-up <br> for local authorities compared <br> with the baseline. |
| The impact of the changes in <br> take-up on children's <br> outcomes including diet (at <br> school and at home), health, <br> the perceived behaviour and <br> engagement of pupils and <br> attainment | Baseline data on these <br> measures before the pilots <br> started. | Data on these measures for <br> periods following the launch of <br> the pilots. Impact will be <br> determined by comparing the <br> difference in outcomes for <br> pupils in pilot areas with the <br> difference in outcomes for <br> pupils with matching <br> characteristics in comparison <br> areas. |
| An understanding of the <br> process of implementing the <br> pilots to help identify the most <br> effective methods of <br> expanding provision of school <br> meals. | No evidence | Early evidence of <br> implementation from scoping <br> interviews with LA staff will be <br> provided in December 2009. |
| The value for money of <br> expanding the offer of FSMs, <br> based on a comparison of the <br> costs and the benefits. | No evidence | Evidence of implementation <br> from two stages of case <br> studies in schools in 2010 and <br> 2011 will be provided in later <br> reports. |

### 2.4 Evaluation design

## The longitudinal survey

The impact of the pilots will be measured through a longitudinal survey of parents and pupils with two stages of interviews: at a baseline stage before the implementation of the pilots and two years later, when the pilots will have been running for nearly two years. Changes in outcomes between the baseline and follow-up surveys for pupils in pilot areas will be compared with those for pupils of matching characteristics in comparison areas.

The use of a comparison sample is crucial to addressing the counterfactual question "What would have happened to take-up, diet, behaviour, attainment, and so on in pilot areas, had the FSM pilots not been introduced?". The impact of the pilots will be the trend (in outcomes) amongst pupils/schools that are part of the FSM pilots less the trend in outcomes amongst pupils/schools in comparison areas.

Outcomes to be measured will cover take-up of school meals, eating patterns at school and at home, body mass index, child behaviour and concentration, absence from school and attainment. The difference in differences approach will employ linear regression or propensity score matching methods on a dataset that will combine data from a longitudinal survey of parents and children with school- and pupil-level administrative data from the National Pupil Database (NPD).

The baseline survey took place in the Summer term 2009, before the launch of the pilots. The second wave (the follow-up) will be carried out with the same parents and children in the Summer term of 2011, after the pilots have been running for nearly two years.

## Differences-in-differences measurement

The impact of the pilots will be measured using a difference-in-differences estimator. This is illustrated by Figure 1.2.

Figure 1.2 The difference-in-differences estimator

| Before introduction of FSM pilots |  | After introduction of FSM pilots |  |
| :---: | :---: | :---: | :---: |
| Pilot <br> pupils/schools | Comparison <br> pupils/schools | Pilot <br> pupils/schools | Comparison <br> pupils/schools |
| $\mathrm{A}^{0}$ | $\mathrm{~B}^{0}$ | $\mathrm{~A}^{\top}$ | $\mathrm{B}^{1}$ |

If the Letters $A$ and $B$ refer to the mean (average) outcome for the group in question, then the difference-in-differences estimator is given by $\left(A^{1}-A^{0}\right)-\left(B^{1}-B^{0}\right)$. This is the trend (in outcomes) amongst pupils/schools that are part of the FSM pilots less the trend in outcomes amongst pupils/schools that are not. Precision can be improved by also controlling for observables in the data at baseline. This can be done either using a linear regression framework and/or through matching (matched difference-in-differences). The approach taken will depend on how well the comparison group matches our pilot sample.

## Eligibility for the survey

To maximise the chances of identifying the impact of the pilots successfully using a longitudinal survey, it was decided to restrict eligibility for the survey to those pupils on whom the impact of the pilots was expected to be greatest; that is, those who, at baseline, were not taking up school
meals. This group of pupils was identified either through information obtained from their schools or from information from their parents. Where pupils were identified as already taking school meals, no interview was taken.

For similar reasons, it was decided to restrict the sample in pilot $C$ and its comparisons areas to pupils who, at the baseline, met the revised criteria for entitlement to FSM. This was assessed by asking pupils' parents about their income and benefit receipt. Where the income appeared to be too high for the pupil to be entitled to FSM (under the new criteria) and parents did not receive relevant benefits, no interview was taken.

It was further decided to restrict the survey in pilot $C$ and its comparison areas to secondary school pupils only. The impact on pupils in primary schools would be estimated by analysis of pupils in pilots $A$ and $B$ and their comparison areas, by using survey information on income to define a subgroup of non-takers of school meals at the baseline who would have been entitled to receive FSM under the extended criteria that applied in pilot $C$ areas.

These eligibility restrictions on the survey were designed to get best value from the sample by focusing face-to-face data collection on individuals on whom the greatest impacts could be expected.

The longitudinal survey's data on eligible pupils will be supplemented by:

- Analysis of administrative data on take-up of schools meals in schools and at the local authority level.
- Analysis of administrative data on attainment and absence from school. This information can be matched to pupils in the longitudinal survey. It can also be used to carry out analysis using all pupils in the pilot and comparison areas (or matched samples within these areas).
- A postal survey of pupils who were identified as taking school meals at the baseline but no longer took school meals at the time of the follow-up survey. This postal survey would seek to establish the reason why pupils stopped taking school meals, to check whether this was related in any way to the delivery of the pilots.

These forms of data collection (that would be used with different sub-groups of pupils in pilot and control areas) are summarised in Figure 1.3.

Figure 1.3: Sample groups and type of data collection (shown in brackets)

Wave 1, 2009
Wave 2, 2011

Pilots A \& B and controls



## Pilot C



Another restriction on eligibility for the study was made in terms of the school years that were included in the evaluation. It was decided to restrict the study to eight cohorts of pupils that would be expected to be at the same school at both the baseline and follow-up survey, as illustrated in Figure 1.4. This meant excluding:

- pupils in Reception (R) and Year 1 at the follow-up survey, who would not be in school at the baseline survey,
- pupils in Years 5 and 6 at the baseline, who would move to a different (secondary) school before the follow-up survey, and
- pupils in Years 10 and 11 at the baseline survey, who would have finished compulsory education by the time of the follow-up survey.

Figure 1.4: Cohorts covered in longitudinal survey of children and parents

| School years at | School years at <br> Baseline survey, <br> 2009 |
| :---: | :---: |
|  | Pollow-up survey, |
| Primary |  |
| Year R \# |  |
|  | Year 1 \# |

Pilots A, B \& C

Cohort ii)

Year 3
Cohort iii)

$\square$
Cohort iv)

$\rightarrow \quad$ Year 5
Cohort v) $\square$ $\rightarrow$ $\square$

Pilot C only
Secondary
Year 5
$\rightarrow$
Year 7

Year 6
$\rightarrow$
Year 8

Cohort vi)

$\rightarrow \quad$ Year 9

Cohort vii)


Cohort viii) $\square$ $\rightarrow$ $\square$

Year 10 *

## Year 11*

## School caterer interviews

A series of three telephone interviews will be carried out with catering managers in co-operating schools in pilot and comparison areas, to collect information about the ways in which school meals are delivered and any ways in which that might have changed over the past year. The first of these interviews was carried out in the Summer term 2009, to provide background information about the provision of school meals before the pilots were introduced, with follow-ups in the summer terms of 2010 and 2011. Topics for the caterer questionnaire include changes in menu choices, contractors, the environment where meals are provided, arrangements for serving meals and how choices of meals could be made.

This report presents the findings of the first survey. The repeat surveys in 2010 and 2011 will allow changes in both pilot and comparison schools to be monitored, and will generate information that can be used in conjunction with parent and pupil data to help explain any changes in outcomes that are observed.

## Attainment data

Attainment data from the National Pupil Database (NPD) will be used for all pupils in pilot and comparisons schools, not just the sub-sample of pupils that are eligible for the survey (as nontakers of school meals) or just those who take part in the survey. Data for the Foundation Stage and Key Stages 1-4 will be used over the course of the evaluation. The main year groups for which attainment outcomes can be assessed are shown in Figure 1.5.

Figure 1.5 Which outcomes can we assess and for whom?

|  | After 1 year | After 2 years |
| :--- | :---: | :---: |
| Primary |  |  |
| Cohort i) |  | Key Stage 1 |
| Cohort ii) | Key Stage 1 |  |
| Cohort iii) |  |  |
| Cohort iv) |  | Key Stage 2 |
| Cohort v) |  |  |
| Secondary |  | Key Stage 4 |
| Cohort vi) |  |  |
| Cohort vii) |  |  |

The analysis will compare attainment outcomes for pupils in pilot schools with those for pupils in comparison schools.

## Additional quantitative evidence

In addition to the longitudinal survey the following quantitative information will be used:

- Use of NPD to monitor trends in recorded eligibility. Since eligibility for FSM is included in the NPD it will be possible to show how the numbers and characteristics of pupils changes over the lifetime of the pilots. This will be especially relevant for Pilot $C$ areas where the eligibility
criteria will be extended as a result of the pilots. Another group of pupils of particular interest will be those who were not registered as eligible for FSM at the baseline but became eligible during the pilots. The use of administrative data to follow FSM eligibility in Pilots $A$ and $B$ relies on the FSM flag in the NPD remaining an indicator of low income (and not simply an indicator for universal entitlement).
- Tracking take-up of school meals in schools. In schools where school meal take-up data is collected to assist with the sampling for the longitudinal survey, the evaluation team will seek to collect data to allow changes in the level of take-up of school meals over the life of the pilots to be monitored.
- Tracking take-up of school meals in LAs. In addition to the school-based data collection, the evaluation team will seek to obtain LA data for overall take up of school meals in both pilot and comparison areas
- School menus. These were collected from selected schools at the time of the baseline survey and the process will be repeated at the time of the follow-up survey. Some simple content analysis of the menus will be carried out to generate classifications that can supplement analysis of changes in provision between the baseline and follow-up surveys.
- Authorised and unauthorised absences. Pupil-level data recording absences from school will be used to look at any changes in these outcomes for pupils in pilot schools compared with comparisons schools.


## Implementation study

A range of qualitative approaches will be used to achieve the following broad objectives:

- generate a rich description of the processes involved at LA and school level;
- cultivate an in-depth understanding of experiences and views of all of the stakeholder groups involved; and
- map the range of effects and outcomes and the mechanisms through which these are felt to occur.

There are three components to the implementation study:

- Stage 1: A preliminary scoping stage in the Autumn of 2009 involving interviews with representatives of the LA and PCT in each of the three pilot LAs and a brief review of key documentation;
- $\quad$ Stage 2: Early implementation case studies in the first half of 2010 in a total of 10 selected schools (8 primary and 2 secondary) exploring early implementation processes and challenges;
- Stage 3: A follow-up stage of case studies a year later in the first half of 2011 in the same 10 selected schools investigating views and experiences of implementation in detail. This will also be an opportunity for stakeholders to reflect critically on what they feel are the impacts of the pilots, and what they feel contribute to these.

No evidence from the implementation study is provided in this report. A first report of the Stage 1 scoping work will be delivered in December 2009.

## 3 School meals at the baseline

### 3.1 Take up of school meals at Local Authority Level

Figure 2.1 shows the take-up of school meals in the pilot and control Local Authorities, as recorded by the School Food Trust and Local Authority Caterers Association annual survey 2009. This data shows annual take-up for the period April 2008-March 2009 (the most recently available data).

Take up in primary schools was $49.6 \%$ in Newham and $49.3 \%$ in Durham, higher than the England average of $39.3 \%$. In Wolverhampton, take-up in primary schools was $39.3 \%$, while in secondary schools it was $30.1 \%$, slightly lower than the England average of $35.1 \%$.

| School Meal take-up in SFT Annual Survey 08/09 |  |  |  |
| :---: | :---: | :---: | :---: |
| Pilot/Control | Local Authority | Primary take-up <br> (\%) | Secondary take-up <br> (\%) |
| Pilot A | Newham | 49.6 | 36.3 |
| Control A | Redbridge | 30.9 | 38.9 |
| Control A | Manchester | 54.4 | 53.9* |
| Control A | Haringey | 55.0 | 44.7 |
| Control A | Wandsworth | 44.8 | 35.3 |
| Control A | Enfield | 46.2 | 33.0* |
| Control A average ${ }^{1}$ |  | 46.3 | 41.2 |
| Pilot B | Durham | 49.3 | 45.8 |
| Control B | Norfolk | 35.3 | 30.4 |
| Control B | Wirral | 40.8 | 38.5 |
| Control B | Sefton | 40.7 | 42.2* |
| Control B | Kent | 31.4 | 30.6 |
| Control B | South Tyneside | 66.7 | 43.4 |
| Control B average |  | 43.0 | 37.0 |
| Pilot C | Wolverhampton | 39.2 | 30.1 |
| Control C | Nottinghamshire | 38.2 | 26.6 |
| Control C | Kirklees | 49.7 | 48.1 |
| Control C | Tower Hamlets | 64.7 | 48.7 |
| Control C | Northamptonshire | Not available | Not available |
| Control C | Lincolnshire | 31.4 | 45.2 |
| Control C average |  | 46.0 | 42.2 |
| All England |  | 39.3 | 35.1 |

*= figure based on less than 50\% coverage of schools

### 3.2 Take-up at pupil level

Take-up of school meals at pupil level at the baseline was measured by asking co-operating schools to record whether the pupils selected for the study were taking school meals (defined as having at least one school meal in the last week ${ }^{2}$ ). Figure 2.2 shows the overall percentages of pupils taking school meals at the baseline in the pilot and control areas, as recorded by the school.

[^0]The majority of selected pupils in each of the pilot areas were already taking school meals at the baseline. Seventy per cent of sampled primary pupils in Newham and the Control A authorities, and $57 \%$ in Durham and Control B authorities were taking school meals. In Wolverhampton 70\% of sampled pupils in secondary schools were taking school meals, as were $72 \%$ in Control C authorities. These figures are significantly higher than the LA level estimates collected by the SFT annual survey (see Figure 3.1), probably because the evaluation sample was skewed towards pupils with deprived backgrounds, who are more likely to be taking free school meals.

Figure 3.2 Take-up of school meals among sampled pupils
Base: Sampled pupils for whom take-up information provided by schools
$\left.\begin{array}{lrrrrrrr}\hline & \begin{array}{c}\text { Sample type } \\ \text { Newham } \\ \text { (Pilot A) }\end{array} & \begin{array}{c}\text { Durham Wolverhampt } \\ \text { (Pilot B) }\end{array} & \text { on (Pilot C) }\end{array}\right]$

### 3.3 Eligibility and take-up of Free School Meals

This section makes use of data from the Summer 2009 School Census to compare Free School Meal (FSM) eligibility (at pupil level), and take-up of school meals amongst those who are eligible for FSM (at school level), across various groups of interest in the pilot and comparison areas. It also compares the administrative data with responses from the longitudinal survey amongst survey respondents, paying particular attention to reported eligibility for Free School Meals.

In general, pupils are entitled to Free School Meals if their parents receive income support, incomebased jobseeker's allowance, or child tax credit with a gross household income of less than $£ 16,040$. Pupils are eligible for Free School Meals (which is what is reported in the Schools Census) if they are both entitled to FSM and have registered as such with their Local Authority. The information in the Schools Census is collected at the start of the summer term, meaning that there may be discrepancies between FSM eligibility reported in the administrative data and FSM eligibility reported in the longitudinal survey for parents whose income is volatile.

## Eligibility and take-up amongst pupils in pilot and comparison areas

Figure 3.3 compares FSM eligibility and take-up of FSM among various groups of interest in the pilot and comparison areas. These groups are as follows:

- All pupils in pilot and comparison authorities;
- All pupils in pilot and comparison authorities in the relevant years for the longitudinal survey;
- All pupils in pilot and comparison authorities whose school meal take-up is known;
- All pupils in pilot and comparison authorities who take-up school meals ("takers");
- All pupils in pilot and comparison authorities who do not take-up school meals ("nontakers"). ${ }^{3}$

[^1]Figure $3.3 \quad$ Eligibility for FSM and take-up of school meals amongst those eligible for FSM

|  | All pupils in LA ${ }^{4}$All pupils in LA in <br> relevant years | All pupils for <br> whom school <br> meal take-up is <br> known | Takers |
| :--- | :---: | :---: | :---: | :---: | :---: |

Source of overall LA information: http://www.dcsf.gov.uk/rsgateway/DB/SFR/s000843/index.shtml. Source of all other information: FSM eligibility taken from the Summer 2009 School Census; take-up of FSM taken from the Spring 2009 School Census; information on school meal take-up collected as part of the evaluation.

For Newham and Durham, Figure 3.3 focuses on pupils in Reception, Year 1, Year 2, Year 3 and Year 4, while for Wolverhampton, it focuses on pupils in Year 7, Year 8 and Year 9. (In each case, these are the year groups selected for the longitudinal survey.) It also shows FSM eligibility and take-up information for all pupils in the relevant primary school years in Wolverhampton.

As expected, the authorities chosen to run the FSM pilots appear to be more deprived, on average, than other local authorities in England: the proportion of pupils eligible for Free School Meals in these authorities ranges from 18.4\% in Wolverhampton (for secondary school pupils) to $29.0 \%$ in Newham (for primary school pupils) (compared to averages of $16.0 \%$ for primary school pupils and $13.4 \%$ for secondary school pupils in England). ${ }^{5}$

[^2]Moreover, pupils who are eligible for Free School Meals in the relevant years in these authorities also appear to be somewhat more likely to take-up their free meals than pupils on average in England: take-up ranges from $76.6 \%$ in Wolverhampton to $87.8 \%$ in Newham (compared to averages of $82 \%$ for primary school pupils and $72 \%$ for secondary school pupils in England ${ }^{6}$ ).

In both cases, the authorities chosen to act as comparison areas are slightly less deprived than the pilot authorities, but still more deprived than the average in England. This is likely to be because comparison areas were chosen not only on the basis of deprivation, but also on a whole range of other characteristics (including prior attainment). Furthermore, some preferred comparison areas had to be excluded on the advice of the School Food Trust and some on the basis of interviewer capacity.

As described above, co-operating schools were asked to record take-up for selected pupils (with taking school meals defined as having at least one school meal in the last week). For the samples of pupils where school co-operation was not obtained, school meal status was asked of parents on the doorstep and pupils were screened out if they had had school meals on three or more days in the last week. In total, take-up information was obtained for around three quarters of the issued sample.

In Newham and Durham, pupils for whom school meal take-up is known are fairly representative of the deprivation level amongst all pupils (in the relevant years) in these authorities. In Wolverhampton, on the other hand, pupils whose school meal take-up is known are substantially more deprived than pupils whose school meal take-up is unknown, with $35.5 \%$ of pupils whose take-up is known eligible for FSM, compared with $22.5 \%$ eligible for FSM (in the relevant years) in Wolverhampton as a whole. This is partly because the greater sample sizes available in Wolverhampton (than in Newham or Durham) meant that the skew towards pupils from more deprived backgrounds could be achieved more successfully there.

Pupils whose take-up of school meals is known are then split into two categories: those who take up school meals and those who do not. Only those who do not take up school meals are eligible for inclusion in the longitudinal survey of parents and pupils (to be discussed in the next section).

Figure 3.3 makes clear that pupils who already take school meals are substantially more deprived than pupils who do not currently take school meals. For example, in Newham, 45.5\% of pupils who take school meals are eligible for FSM, compared to just 10.2\% of pupils who do not take school meals. Similarly, in Durham (Wolverhampton), 33.3\% (46.0\%) of pupils who take school meals are eligible for FSM, compared to just $9.5 \%$ (12.8\%) of pupils who do not take school meals. The differences are similarly stark amongst pupils in comparison authorities.

## Eligibility among survey respondents

## Eligibility based on administrative data

As outlined above, only pupils who were not taking up school meals (or had taken them on fewer than three days in the last week) were interviewed in the longitudinal survey. It is therefore instructive to compare the relative deprivation levels of pupils who do not currently take up school meals (see Figure 3.3) with those of pupils who were interviewed in the longitudinal survey (see Figure 3.4).

[^3]Using administrative data, it is clear that pupils in Newham and Durham who were interviewed in the longitudinal survey are somewhat less deprived than pupils in these areas who were not, with $7.6 \%(6.4 \%)$ of pupils in the longitudinal survey eligible for Free School Meals, compared to 10.2\% (9.5\%) of non-takers in Newham (Durham). This difference is likely to arise at least partly because of lower response rates amongst more disadvantaged families. The reverse is true for pupils in Wolverhampton, however, with $14.5 \%$ of pupils in the longitudinal survey eligible for FSM, compared to $12.8 \%$ of non-takers overall.

## Reported eligibility

Parents included in the longitudinal survey were asked if their child was currently registered for Free School Meals (Figure 3.4).

## Figure $3.4 \quad$ Eligibility for FSM among surveyed pupils

Base: Responding pupils to the survey

|  | Sample type |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham (Pilot A) | Durham (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C |
|  | \% | \% | \% | \% | \% | \% |
| Pupils registered as eligible for FSM in Summer 2009 PLASC | 7.6 | 6.4 | 14.5 | 8.6 | 6.2 | 16.9 |
| Base | 370 | 500 | 255 | 509 | 482 | 255 |
| Pupils reported as registered for FSM | 22 | 9 | 15 | 10 | 7 | 17 |
| Base | 367 | 499 | 252 | 504 | 474 | 253 |

Notes: bases differ slightly because of non-response to the FSM eligibility question in the longitudinal survey. Source: administrative data from the Summer 2009 School Census.

Twenty-two per cent of surveyed pupils in Newham, 9\% in Durham and 15\% in Wolverhampton were reported to be registered as eligible for FSM in Summer Term 2009. In Durham and Wolverhampton, these figures are reasonably close to the figures reported in the Summer 2009 School Census. In Newham, however, a substantially higher proportion of parents report being registered for Free School Meals compared to the number that are actually registered as eligible in the administrative data. It is not clear why there is such a large disparity.

Parents who said their child was not currently registered as eligible for FSM were asked if they thought the child would be eligible if they applied. Sixteen per cent of parents in Newham, 6\% in Durham and $22 \%$ in Wolverhampton thought that their child definitely or probably would be eligible. The majority of parents ( $61 \%$ in Newham, $85 \%$ in Durham and $53 \%$ in Wolverhampton) thought that their child definitely or probably would not be eligible if they applied.

Parents who thought their child would definitely or probably be eligible for FSM if they applied were asked why they had not applied. Responses were unprompted and recorded verbatim. The most common reasons given across all areas were that the child did not like the food served (30\%), and that the child took packed lunches (19\%). Fourteen per cent of parents said they had not applied because they did not know their child was eligible and $5 \%$ said they were in the process of applying.

## Estimated entitlement

On the basis of information provided in the survey about income and benefit receipt, 20\% of the surveyed pupils in Newham, 11\% in Durham, and 33\% in Wolverhampton were estimated to be entitled to FSM under the existing rules. However, these figures are likely to underestimate the actual levels of eligibility among this sample as the figures exclude parents who could not provide the information required to calculate eligibility. (Figure 3.5)

Under the extended eligibility arrangements being piloted in Wolverhampton, $67 \%$ of the pupils surveyed in Wolverhampton were estimated to be entitled to FSM, on the basis of information provided in the interview. ${ }^{7}$ A similar proportion in the Control $C$ areas ( $65 \%$ ) would be entitled under the arrangements being piloted. If the extended eligibility arrangements were applied to Newham and Durham, $39 \%$ and $26 \%$ respectively of the surveyed pupils were estimated be entitled to FSM. Section 3.5 provides more information on the characteristics (including income and benefit receipt) of households interviewed in the longitudinal survey.

## Figure 3.5 Estimated eligibility for FSM among surveyed pupils

Base: All pupils in survey for whom necessary income and benefit information given

|  | Sample type <br> Newham <br> (Pilot A) | Durham <br> (Pilot B) | Wolverhampt <br> on (Pilot C) | Control A | Control B | Control C |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ |
| Pupils estimated to be eligible for |  |  |  |  |  |  |
| FSM (current arrangements) | 20 | 11 | 33 | 18 | 14 | 32 |
| Base | 342 | 478 | 252 | 481 | 465 | 250 |
| Pupils estimated to be eligible for |  |  |  |  |  |  |
| FSM (Pilot C extended eligibility) | 39 | 26 | 67 | 44 | 29 | 65 |
| Base | 327 | 456 | 243 | 444 | 445 | 238 |

[^4]
## Reasons for not taking school meals

All parents (or pupils if aged 11 or over) in the survey were asked why the pupil did not take school meals (or did not take them more often if they were found to have them on some days). Respondents were shown a list of possible reasons and asked which applied to them. Other reasons mentioned spontaneously were recorded verbatim. The most common reason given was that school meals did not offer enough meals that the child liked, mentioned by a third (33\%) of all parents/ pupils. Twenty-one per cent of parents/ pupils felt that the choice of meals was too limited while $13 \%$ felt that the food served was of poor quality. Affordability was a major concern with almost a quarter ( $24 \%$ ) saying that they could not afford for their child to take school meals. Arrangements for serving meals were also a concern, with $15 \%$ saying that taking too long to get served was a reason why the child did not have school meals. Other common reasons were that the child's friends did not take school meals (14\%) and that the child preferred other lunchtime activities (12\%). However, embarrassment at taking school meals was only felt to be a factor by $2 \%$ of respondents (Figure 3.6).

The most common spontaneously mentioned reasons were that the child was a fussy eater or would not eat the food, mentioned by $7 \%$, that the child preferred packed lunches (5\%) and that the parent liked to know what the child had eaten (4\%).

There were few differences in the reasons mentioned between parents who said that their child was registered for free school meals and those who said they were not registered, with the exception that a much smaller proportion of those who claimed to be registered said that affordability was a reason for not taking school meals (4\% compared with $27 \%$ of those not registered) (Figure 3.6b).

Respondents who cited more than one reason for not taking school meals were asked which of these was the main reason why the child did not take school meals. Almost a quarter (24\%) of these said that the main reason was that the school did not offer enough meals that the child liked, while limited choice of meals and poor quality food were cited by $11 \%$ and $10 \%$ respectively as the main reason. Affordability was cited by $17 \%$ as the main reason for not taking school meals.

Figure 3.6 Reasons for not taking school meals


Base: Reasons mentioned: All parents/ pupils answering $(2,366)$
Main reason : Parents/pupils with more than one reason (994)

Figure 3.6b Reasons for not taking school meals by FSM eligibility
Base: Pupils not taking school meals every day

|  | Any mention |  | Main reason |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Registered for | Not registered | Registered for | Not registered for |
|  | FSM | for FSM | FSM | FSM |
| Reasons | \% | \% | \% | \% |
| Not enough meals that child likes | 38 | 32 | 26 | 24 |
| Can't afford to take school meals | 4 | 27 | 3 | 19 |
| The choice of meals is too limited | 23 | 21 | 15 | 10 |
| Takes too long to get served | 20 | 14 | 13 | 7 |
| Child's friends don't take school meals | 13 | 14 | 5 | 7 |
| The food is poor quality | 16 | 13 | 14 | 10 |
| Child prefers other lunchtime activities | 11 | 12 | 9 | 7 |
| Portion sizes too small | 5 | 5 | 2 | 1 |
| Child doesn't need a full meal at lunch | 2 | 5 | 3 | 2 |
| Child comes home | 4 | 3 | 2 | 1 |
| Child would be embarrassed | 3 | 2 | 1 | 2 |
| Other reason | 28 | 27 | 7 | 10 |
| Base | 297 | 2052 | 117 | 870 |

Figure 3.7 shows the reasons cited for not taking school meals separately for pilot and control areas. Higher proportions of respondents in Newham and Durham said that schools did not offer enough meals the child liked than in Wolverhampton ( $35 \%$ and $41 \%$ compared with $23 \%$ ) and the same pattern was seen across the control areas, suggesting that this was more of an issue for
primary school pupils than secondary schools. Taking too long to get served was the most commonly given reason in Wolverhampton (39\%) and its control areas (38\%), while only small proportions in Newham (10\%), Durham (13\%) or their controls (6\% in Control A and B) mentioned this. Preferring to do other things at lunchtime was also cited more commonly in Wolverhampton (24\%) and its control areas (26\%), compared with $11 \%$ in Newham and 9\% in Durham.
Affordability, however, was less likely to be mentioned as a concern in Newham (18\%) or Durham (15\%) than in Wolverhampton (27\%) or any of the control areas (30\% in Controls A, B and C mentioned this). This might indicate awareness of the introduction of the universal eligibility pilots in Newham and Durham.

## Figure 3.7 Reasons for not taking school meals

Base: Pupils not taking school meals every day

| Sample type |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Newham | Durham Wolverhampt | Control A | Control B | Control C | All Primary | All Secondary |
| $($ Pilot A) | $($ Pilot B) | on $($ Pilot $C)$ |  |  |  | pupils |


| Reasons | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Not enough meals that child likes | 35 | 41 | 23 | 36 | 31 | 23 | 36 | 23 |
| Can't afford to take school meals | 18 | 15 | 27 | 30 | 30 | 30 | 23 | 25 |
| The choice of meals is too limited | 23 | 21 | 21 | 27 | 14 | 20 | 21 | 20 |
| Takes too long to get served | 10 | 13 | 39 | 6 | 6 | 38 | 9 | 38 |
| Child's friends don't take school meals | 10 | 21 | 9 | 10 | 16 | 15 | 15 | 12 |
| The food is poor quality | 13 | 8 | 15 | 19 | 10 | 15 | 12 | 15 |
| Child prefers other lunchtime activities | 11 | 9 | 24 | 5 | 10 | 26 | 8 | 25 |
| Portion sizes too small | 7 | 4 | 5 | 4 | 4 | 5 | 5 | 5 |
| Child doesn't need a full meal at lunch | 4 | 4 | 3 | 2 | 10 | 5 | 5 | 4 |
| Child comes home | 10 | $*$ | 9 | 2 | $*$ | 4 | 3 | 6 |
| Child would be embarrassed | 2 | 1 | 4 | 1 | 1 | 6 | 1 | 6 |
| Other reason | 25 | 30 | 18 | 27 | 35 | 20 | 29 | 5 |
| Base | 368 | 501 | 254 | 508 | 482 | 253 | 1862 | 19 |

*= less than 0.5\%

- = 0


### 3.4 Intentions on the introduction of the pilots

Awareness of the pilots was very high in Newham and Durham, where $93 \%$ and $97 \%$ of parents respectively said that they knew that their child's school would be offering free school meals to all pupils in the coming term. In Wolverhampton, awareness of the pilot was much lower, with 39\% of parents saying that they knew their child's school would be making free school meals available to more pupils (Figure 3.8).

Figure 3.8 Awareness of the pilots among parents


Base: All parents in pilot areas (Newham: 370, Durham: 501, Wolverhampton: 255)

Intended take-up of the universal pilots appeared to be high. Nearly half ( $46 \%$ ) of parents in Newham said that their child would definitely have the free school meals, while just over a quarter (26\%) said that they probably would. In Durham, almost three-fifths (59\%) of parents said that their child would definitely have the free school meals and a further $15 \%$ said that they probably would. Just 6\% of parents in Newham and 13\% in Durham said that their child would definitely not have the free school meals (Figure 3.9).

In Wolverhampton, a third (33\%) of parents said that their child would definitely have free school meals if they were eligible under the new arrangements, while $22 \%$ said that they probably would. Thirteen per cent of parents in Wolverhampton said that their child would definitely not have the free school meals even if they were eligible. The intentions of parents in Wolverhampton did not vary according to whether they were estimated to be eligible under the new arrangements.

Figure 3.9 Intention to take up free school meals when the pilots begin


Base: All parents in pilot areas (Newham: 370, Durham: 501, Wolverhampton: 255)

### 3.5 Provision of school meals

This section reports findings on the provision of meals in the pilot and control schools. The findings are based primarily on the telephone survey of catering managers conducted in Summer 2009, prior to the start of the pilots. In the parent survey, parents were asked for their views on school meals and these are also reported. All the findings are broken down by pilot and control schools and since the total number of schools in the survey of caterers was 71 , the number of schools rather than percentages are shown in the tables.

## Types of meals and staffing

Lunch was provided by all the schools taking part in the survey (Figure 3.10). Approximately half of the schools in Newham, Durham and Wolverhampton also provided breakfast. Meals served at other times of the day were less common, with the exception of Wolverhampton schools providing food at morning break. Most of these schools in Wolverhampton reported that they provided cold meals such as sandwiches during morning break that could be eaten as lunch.

Figure 3.10 Times of day catering services provided
Base: Responding schools by sample type

|  | Sample type |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham (Pilot A) | Durham (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C | Total |
| Times of day | N | N | N | N | N | N | N |
| Breakfast | 7 | 8 | 5 | 6 | 5 | 7 | 38 |
| Morning break | 1 | 1 | 7 | 2 | 5 | 8 | 24 |
| Lunch | 13 | 14 | 9 | 12 | 15 | 8 | 71 |
| After school | 0 | 2 | 1 | 2 | 2 | 0 | 7 |
| Other times | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Bases | 13 | 14 | 9 | 12 | 15 | 8 | 71 |

Newham schools provided more meals each day, on average, than those in Durham (a mean of 220 compared with 113) (Figure 3.11). Wolverhampton schools provided an average of 342 meals each day.

Figure 3.11 Number of meals served each day
Base: Responding schools by sample type

| Number of meals | Sample type Newham (Pilot A) | Durham Wolverhampton <br> (Pilot B) <br> (Pilot C) |  | Control A | Control B | Control C | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  | N | N | N | N | N | N | N |
| Mean | 220 | 113 | 342 | 252 | 79 | 354 | 205 |
| Minimum | 130 | 50 | 100 | 50 | 13 | 100 | 13 |
| Maximum | 420 | 300 | 900 | 480 | 140 | 700 | 900 |
| SD | 77 | 68 | 282 | 97 | 42 | 216 | 167 |
| Bases | 13 | 14 | 9 | 12 | 15 | 8 | 71 |

All the pilot and control schools provided a hot meal at lunchtime. The majority of schools in Newham and Durham and all schools in Wolverhampton also provided cold meals, such as sandwiches (Figure 3.12).


The majority of schools reported that schools meals were made on the school premises. One school in Newham had meals prepared elsewhere and transported hot to the school premises (Figure 3.13).

Figure 3.13 Where school meals are prepared
Base: Responding schools by sample type Survey

| Types of meals | Sample type |  |  |  |  |  | Total N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham <br> (Pilot A) | Durham <br> (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C |  |
|  | N | N | N | N | N | N |  |
| Made on school premises | 12 | 14 | 9 | 12 | 10 | 8 | 65 |
| Made elsewhere and reheated from frozen/chilled on school premises | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Made elsewhere and transported hot to school premises | 1 | 0 | 0 | 0 | 4 | 0 | 5 |
| Bases | 13 | 14 | 9 | 12 | 15 | 8 | 71 |

The schools in Newham and Durham had up to 10 staff involved in preparing food (Figure 3.14). As would be expected, given that Newham schools were larger on average, they were more likely to report having between four and six staff involved in meal preparation whereas Durham schools mostly reported having between one and three staff involved. Most of the schools in Wolverhampton had between four and six staff involved on food preparation, although one had more than ten.

Figure 3.14 Number of catering staff involved in preparing food


On the whole, fewer staff were involved in serving food than in its preparation (Figure 3.15). Most of the Durham schools had between one and three staff involved in serving food whereas there was more variation in Newham and Wolverhampton.

Figure 3.15 Number of catering staff involved in serving food


Schools reported different arrangements for the employment of catering staff (Figure 3.16). All of the caterers in Newham schools were employed by the local authority catering service. The schools in Durham and Wolverhampton were more varied in their contractual arrangements. Some schools employed catering staff directly or had a direct contract with a private catering company or used a service provider employed by the local authority.

## Figure 3.16 Who the catering staff are employed by



## Menus

Schools were asked about the number of weeks in a menu cycle (Figure 3.17). All the schools in Newham and Wolverhampton had four week menu cycle and the schools in Durham had either three or four week menu cycles. As might be expected, given the larger number of local authorities covered, there was more variation in the length of school menu cycles in the control areas. Most of the Control A schools had a three week menu cycle, although one had a one week cycle, while most of the Control B schools had three or four week cycles. In the Control C schools, menu cycles ranged between two weeks to four weeks.

## Figure 3.17 Number of weeks in a school lunch menu

Base: Responding schools by sample type

| Number of weeks | Sample type Newham (Pilot A) |  |  | Control A | Control B | Control C | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Durham (Pilot B) | Wolverhampton (Pilot C) |  |  |  |  |
|  | N | N | N | N | N | N | N |
| 1 week | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 2 weeks | 0 | 0 | 0 | 0 | 1 | 4 | 5 |
| 3 weeks | 0 | 5 | 0 | 9 | 8 | 2 | 24 |
| 4 weeks | 13 | 9 | 9 | 2 | 5 | 2 | 40 |
| Other | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Bases | 13 | 14 | 9 | 12 | 15 | 8 | 71 |

The schools in Newham changed their menus twice a year, but in Durham the menus were changed more frequently (Figure 3.18). Again, there was some variation in the frequency of changes in the control areas, although the majority of Control A and Control B schools changed the menus at least seasonally. Two-thirds of the schools in Wolverhampton kept the same menu for a year, as did five of the eight schools in Control C areas.

Figure $3.18 \quad$ Frequency of menu cycles


The decision of what meals to include in the school lunch menu was related to the catering contract used by the school (Figure 3.19). For example, the menus for most of the Newham schools were compiled by the in-house catering service.

Figure 3.19 Who decides what meals to include in lunch menus?
Base: Responding schools by sample type

|  | Sample type <br> Newham <br> (Pilot A) | Durham <br> (Pilot B) | Wolverhampton <br> (Pilot C) | Control A | Control B | Control C |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

There was variation in the extent to which schools could alter the menu (Figure 3.20). Schools in Newham and Wolverhampton tended to be limited in the extent to which they could make alterations, whereas some schools in Durham reported that their caterers could alter the menu 'a lot'.

Figure 3.20 To what extent can caterers alter menu?
Base: Responding schools by sample type

|  | Sample type |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham <br> (Pilot A) | Durham (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C | Total |
| Extent | N | N | N | N | N | N | N |
| Not at all | 6 | 3 | 5 | 4 | 3 | 1 | 22 |
| A little | 7 | 7 | 4 | 8 | 12 | 6 | 44 |
| A lot | 0 | 4 | 0 | 0 | 0 | 1 | 5 |
| Bases | 13 | 14 | 9 | 12 | 15 | 8 | 71 |

Schools were asked about the types of special diets that were included within the normal menu, meaning that the meals in the menu cycle included these options (Figure 3.21). The types of special diets mentioned most frequently were vegetarian and allergies and intolerances.

Figure 3.21 Special diets included within normal menu*
Base: Responding schools by sample type

| Diets | Sample type |  |  |  |  |  | Total N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham <br> (Pilot A) | Durham (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C |  |
|  | N | N | N | N | N | N |  |
| Vegetarian | 13 | 10 | 9 | 12 | 13 | 8 | 65 |
| Religious or ethnic diets such as Halal or | 0 | 4 | 3 | 10 | 5 | 3 |  |
| Kosher |  |  |  |  |  |  | 25 |
| Special nutrition conditions such as | 0 | 4 | 1 | 6 | 3 | 3 |  |
| diabetic |  |  |  |  |  |  | 17 |
| Allergies and intolerances | 13 | 7 | 5 | 7 | 10 | 3 | 45 |
| None of the above | 0 | 4 | 0 | 0 | 1 | 0 | 5 |
| Bases | 13 | 14 | 9 | 12 | 15 | 8 | 71 |

*Schools could select more than one category.

Most schools could cater for any of the special diets mentioned on request (Figure 3.22)

## Figure 3.22 Special diets provided on request

Base: Responding schools by sample type

| Diets | Sample type |  |  |  |  |  | TotalN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham <br> (Pilot A) | Durham <br> (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C |  |
|  | N | N | N | N | N | N |  |
| Vegetarian | 13 | 12 | 9 | 11 | 13 | 8 | 66 |
| Religious or ethnic diets such as Halal or | 13 | 13 | 8 | 10 | 11 | 6 |  |
| Kosher |  |  |  |  |  |  | 61 |
| Special nutrition conditions such as | 13 | 14 | 9 | 10 | 14 | 7 |  |
| diabetic |  |  |  |  |  |  | 67 |
| Allergies and intolerances | 13 | 14 | 9 | 11 | 13 | 6 | 66 |
| Bases | 13 | 14 | 9 | 12 | 15 | 8 | 71 |

All of the schools in Newham and most of the schools in Durham required pupils to order special menus in advance, but fewer than half of the schools in Wolverhampton imposed this requirement (Figure 3.23).

## Figure 3.23 Whether special menus need to be ordered in advance

Base: Responding schools by sample type Survey

|  | Sample type |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham <br> (Pilot A) | Durham (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C | Total |
| Yes or no | N | N | N | N | N | N | N |
| Yes | 13 | 11 | 4 | 8 | 9 | 5 | 50 |
| No | 0 | 3 | 5 | 4 | 6 | 3 | 21 |
| Bases | 13 | 14 | 9 | 12 | 15 | 8 | 71 |

The schools that required special menus to be ordered in advance adopted different approaches to setting this up (Figure 3.24). In Newham, special meal requirements arising out of medical needs were agreed between the school, dietician and catering service and kept in place until the pupil's needs changed. In the other pilot areas, special menus needed to be ordered any where between the previous day (Wolverhampton) to termly (Durham).

Figure 3.24 How far in advance special menus need ordering
Base: Responding schools who said special menus needed to be ordered in advance Survey


On the whole, schools did not tend to offer free food or drink to pupils aside from Free School Meals to those who were eligible (Figure 3.25). Durham was the main exception, with nine schools offering fruit and five offering milk during the morning (Figure 3.26).

## Figure 3.25 When free food or drink are offered to all pupils*

Base: Responding schools by sample type Survey

| Time of day | Sample type <br> Newham <br> (Pilot A) | Durham Wolverhampton <br> (Pilot B) <br> (Pilot C) |  | Control A |  | Control C | Total N |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Control B |  |  |
|  | N | N | N |  | N | N |  | N |
| Breakfast or before school day | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| During the morning | 1 | 9 | 1 | 3 | 6 | 1 | 21 |
| During the afternoon | 0 | 2 | 0 | 0 | 2 | 0 | 4 |
| At end of school day | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| After school clubs | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| None of the above | 12 | 5 | 8 | 9 | 9 | 5 | 48 |
| Bases | 13 | 14 | 9 | 12 | 15 | 8 | 71 |

## Figure 3.26 Kinds of food and drink offered free*

Base: Schools who offered free food and drink by sample type Survey

| Food or drink | Sample type |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham <br> (Pilot A) | Durham Wolverhampton |  | Control A | Control B | Control C | Total |
|  |  | (Pilot B) | (Pilot C) |  |  |  |  |
|  | N | N | N | N | N | N | N |
| Water | 0 | 7 | 1 | 1 | 5 | 3 | 17 |
| Milk | 0 | 5 | 1 | 2 | 1 | 3 | 12 |
| Fresh fruit | 1 | 9 | 0 | 3 | 5 | 3 | 21 |
| Breakfast cereal | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Biscuits | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Other | 0 | 0 | 1 | 1 | 0 | 1 | 3 |
| Bases | 1 | 9 | 1 | 3 | 6 | 3 | 23 |

*Schools could select more than one answer.

## Choices

Schools made the menu available to pupils and parents in a variety of ways including displaying it in the dining hall, sending it home to parents and making it available on the internet (Figure 3.27). In Newham, the menu was given to pupils in advance.

Figure 3.28 How pupils view the menu*
Base: Responding schools by sample type Survey

| Menu location | Sample type Newham (Pilot A) | Durham Wolverhampton <br> (Pilot B) <br> (Pilot C) |  | Control A | Control B | Control C | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  | N | N | N | N | N | N | N |
| Displayed in dining room | 0 | 12 | 9 | 11 | 15 | 8 | 55 |
| Displayed elsewhere in school | 0 | 7 | 6 | 7 | 7 | 3 | 30 |
| Available on the internet | 0 | 4 | 4 | 2 | 3 | 2 | 15 |
| Given to pupils in advance | 13 | 1 | 4 | 2 | 2 | 2 | 24 |
| Sent home to parents | 0 | 11 | 6 | 7 | 14 | 5 | 43 |
| Other way | 0 | 0 | 1 | 1 | 0 | 1 | 3 |
| Bases | 13 | 14 | 9 | 12 | 15 | 8 | 71 |

*Schools could select more than one answer.

The following two tables report data from the parent survey (Figure 3.29). The three pilot areas varied considerably in terms of the proportion of parents who said that had seen the school menu
in the last year. In Newham, just under half (48\%) of the parents had seen the menu, in Durham over two-thirds (69\%) of parents had seen it, and in Wolverhampton the figure was just one quarter (25\%).


Of the parents who had seen the school menu, those in Newham had seen it more often than in the other pilot areas (Figure 3.30).

Figure 3.30 How often parents had seen menu
Base: Parents who had seen menu by sample type
Survey


Returning to the caterer survey, all of the schools in Newham and most of the schools in Durham offered three meal choices on a given day, whereas the Wolverhampton schools tended to offer more choices (Figure 3.31).

## Figure 3.31 Average number of meal choices on given day



Most of the schools employed various strategies for promoting school meals, the most common being taster sessions for pupils and parents and theme days (Figure 3.32).

Figure 3.32 Methods used in last year for promoting schools meals
Base: Responding schools by sample type


Newham and Wolverhampton schools allowed pupils to decide on the day whether they were going to take school lunch, whereas most of the Durham schools required pupils to decide in advance. (Figure 3.33). Of these Durham schools, there was a fairly even split between the schools that required pupils to take school meals every day and those that did not.

## Figure 3.33 When pupils decide whether to take school lunch

Base: Responding schools by sample type Survey

|  | Sample type |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham (Pilot A) | Durham (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C | Total |
| When decided | N | N | N | N | N | N | N |
| On the day | 13 | 3 | 9 | 4 | 9 | 7 | 45 |
| Previous day | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Week | 0 | 4 | 0 | 2 | 4 | 0 | 10 |
| Half-term | 0 | 2 | 0 | 2 | 2 | 0 | 6 |
| Term | 0 | 3 | 0 | 3 | 0 | 0 | 6 |
| Other | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| Bases | 13 | 14 | 9 | 11 | 15 | 8 | 70 |

Schools used various methods for encouraging pupils to choose fruit, vegetables or salad (Figure 3.34, Figure 3.35). The main approach was to promote these foods as 'healthy' options. Schools also gave these foods free with other choices and gave rewards such as verbal praise or stickers (Figure 3.36).

Figure 3.34 Methods used in last year for promoting fruit, vegetables or salad


## Figure 3.35 Are pupils encouraged to choose healthy options at lunchtime? ${ }^{8}$



Figure 3.36 How are healthy options encouraged?
Base: Responding schools who encourage pupils to choose healthy options

|  | Sample type <br> Newham <br> (Pilot A) | Durham <br> (Pilot B) | Wolverhampton <br> (Pilot C) | Control A | Control B | Control C |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

Most schools allowed pupils to make their choices on the day rather than in advance (Figure 3.37). In all 71 schools, pupils registered for free school meals were given the same choices as others.

| Figure 3.37 How far in advance do pupils make choices? |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Base: Responding schools by sample type Survey |  |  |  |  |  |  |  |
| Sample type |  |  |  |  |  |  |  |
| How far in advance | Newham <br> (Pilot A) | Durham <br> (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B |  | Total |
|  | N | N | N | N | N | N | N |
| At lunchtime in the dining hall | 13 | 11 | 9 | 12 | 11 | 8 | 64 |
| Earlier in the day | 0 | 1 | 0 | 0 | 2 | 0 | 3 |
| Weekly | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Half-termly | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Other | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Bases | 13 | 14 | 9 | 12 | 15 | 8 | 71 |

## Cost and payment systems

Most schools (67) had a fixed price of school lunch and the four schools that had variable costs were able to provide a typical cost. The average price and ranges are show in Figure 3.38. The pilot areas charged similar prices on average for a school lunch. While the price was fixed in the Newham schools, it varied by 20 pence in Durham and 50 pence in Wolverhampton. The average price of school lunch was higher in the control areas.

[^5]Figure 3.38 Cost of school lunch
Base: Responding schools able to provide cost information

| Number of meals | Sample type |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham (Pilot A) | Durham (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C | Total |
|  | £ | £ | £ | £ | $£$ | £ | £ |
| Mean | 1.60 | 1.61 | 1.63 | 1.90 | 1.87 | 1.86 | 1.75 |
| Minimum | 1.60 | 1.60 | 1.20 | 1.60 | 1.50 | 1.40 | 1.20 |
| Maximum | 1.60 | 1.80 | 1.70 | 2.20 | 2.20 | 2.10 | 2.20 |
| SD | 0.00 | 0.05 | 0.17 | 0.17 | 0.19 | 0.20 | 0.19 |
| Bases | 13 | 14 | 9 | 12 | 15 | 8 | 71 |

In Newham, pupils paid for school lunches on the day (Figure 3.39). In Durham and Wolverhampton, the payment methods varied considerably including paying weekly or termly, or using a cashless system.

## Figure 3.39 How pupils pay for their meals

| Base: Responding schools by sample type |  |  |  |  |  |  | Survey |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sample type |  |  |  |  |  |  |
|  | Newham | Durham | Wolverhampton | Control A | Control B | Control C |  |
|  | (Pilot A) | (Pilot B) | (Pilot C) |  |  |  | Total |
| Payment methods | N | N | N | N | N | N | N |
| By cash during lunchtime | 0 | 0 | 4 | 3 | 4 | 4 | 15 |
| By cash earlier in the day | 13 | 3 | 1 | 2 | 4 | 0 | 23 |
| Weekly | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| By cheque at start of term | 0 | 8 | 1 | 9 | 12 | 0 | 30 |
| Smartcard / other cashless system | 0 | 1 | 7 | 0 | 0 | 4 | 12 |
| Some other way | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Bases | 13 | 14 | 10 | 12 | 15 | 9 | 70 |

## Arrangements at lunchtime

Schools were asked a number of questions to describe lunchtime arrangements. Less than half of the schools occasionally ran out of a specific menu choice before the end of lunchtime (Figure 3.40).

Figure 3.40 How often school runs out of specific menu choices before end of lunchtime


In most schools, the lunch period was staggered so that pupils started lunchtime at different times (Figure 3.41).

Figure 3.41 Timings for taking lunch
Base: Responding schools by sample type


Most of the schools in Newham and Durham provided one eating area and in Wolverhampton, twothirds of the schools provided two eating areas (Figure 3.42).


The majority of schools served food from one place (Figure 3.43).


On average, pupils did not have to wait long to be served their food. At peak times, the average period for waiting was four minutes in Newham and Durham, and six minutes in Wolverhampton (Figure 3.44). The maximum time in all three areas was ten minutes.

Figure 3.44 How long pupils have to wait to be served at peak times
Base: Responding schools by sample type Survey

|  | Sample type <br> Newham <br> (Pilot A) | Durham <br> (Pilot B) |  | Wolverhampton <br> (Pilot C) | Control A | Control B | Control C |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

Only a minority of schools reported encountering problems in serving pupils in the time available at lunchtime (Figure 3.45).

Figure 3.45 Problems serving pupils in time available at lunchtime
Base: Responding schools by sample type

|  | Sample type |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham <br> (Pilot A) | Durham (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C | Total |
| Yes or no | N | N | N | N | N | N | N |
| Yes | 2 | 1 | 1 | 0 | 3 | 2 | 9 |
| No | 11 | 13 | 8 | 12 | 12 | 6 | 62 |
| Bases | 13 | 14 | 9 | 12 | 15 | 8 | 71 |

On average, schools in Newham and Durham had five adults on duty at lunchtime and Wolverhampton schools reported six (Figure 3.46). However, some of the schools had as many as 16 adults on duty. It may be the case that in these schools, adults were on duty in areas of the school beyond the dining hall.

## Figure 3.46 Number of adults on duty at lunchtime

Base: Responding schools.

| Number of adults | Sample type |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham <br> (Pilot A) | Durham (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C | Total |
|  | N | N | N | N | N | N | N |
| Mean | 5 | 5 | 6 | 10 | 4 | 7 | 6 |
| Minimum | 2 | 2 | 3 | 3 | 0 | 2 | 0 |
| Maximum | 16 | 12 | 10 | 22 | 12 | 17 | 22 |
| SD | 4 | 3 | 2 | 7 | 3 | 5 | 5 |
| Bases | 11 | 14 | 9 | 12 | 15 | 8 | 69 |

Most schools reported that there was sufficient room for pupils to sit down and eat their lunch (Figure 3.47). One-third of the schools in Wolverhampton, however, said that there was not enough room.

Figure 3.47 Enough room for pupils to sit down for lunch?
Base: Responding schools by sample type Survey


Pupils with different lunch options (school meals, free school meals and packed lunches) tended to be allowed to sit together, although this was not the case in a minority of schools across the sample (Figure 3.48, Figure 3.49).

Figure 3.48 Can pupils having school lunches and packed lunches sit together?
Base: Responding schools by sample type

|  | $\begin{array}{c}\text { Sample type } \\ \text { Newham } \\ \text { (Pilot A) }\end{array}$ | $\begin{array}{c}\text { Durham } \\ \text { (Pilot B) }\end{array}$ |  | Nolverhampton |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| (Pilot C) |  |  |  |  |$)$

## Figure 3.49 Can pupils having free school lunches sit with others?

Base: Responding schools by sample type

|  | $\begin{array}{c}\text { Sample type } \\ \text { Newham } \\ \text { (Pilot A) }\end{array}$ | $\begin{array}{c}\text { Durham } \\ \text { (Pilot B) }\end{array}$ |  | Wolverhampton |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| (Pilot C) |  |  |  |  |$)$

In the majority of schools in the pilot areas, teachers sat with pupils while they ate their lunch (Figure 3.50).

Figure 3.50 Do teachers sit with pupils while they eat their lunch?


In over half of the schools (including all of the secondary schools), pupils could sit wherever they wanted to in the dining room (Figure 3.51). The second most common arrangement was for pupils to sit in class groups.

Figure 3.51 Typical seating arrangements in dining room
Base: Responding schools by sample type


The adults on duty at lunchtime usually includes dining room supervisors (Figure 3.52). Other staff on duty included teaching staff, classroom support staff, catering staff and senior management. The pilot areas were similar in the types of staff on duty.

| Figure 3.52 Staff usually on duty |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Base: Responding schools by sample type Survey |  |  |  |  |  |  |  |
| Sample type |  |  |  |  |  |  |  |
|  | Newham <br> (Pilot A) | Durham <br> (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B |  | Total |
| Staff on duty | N | N | N | N | N | N | N |
| Catering or kitchen staff | 3 | 2 | 2 | 1 | 2 | 3 | 13 |
| Dining room supervisors/school meal assistants | 13 | 14 | 9 | 11 | 13 | 7 | 67 |
| Classroom support staff | 6 | 4 | 1 | 6 | 2 | 2 | 21 |
| Teaching staff | 5 | 7 | 8 | 6 | 6 | 4 | 36 |
| Senior management | 3 | 3 | 5 | 5 | 2 | 2 | 20 |
| Bases | 13 | 14 | 9 | 12 | 15 | 8 | 71 |

As expected, the secondary schools (Wolverhampton and Control area C) were more likely to report that pupils were allowed to leave the school premises at lunchtime (Figure 3.53). In Durham, only one school allowed some pupils to leave the premises, whereas in Newham, half the schools allowed some or all of the pupils to leave at lunchtime. Most of the primary schools in control areas did not allow pupils to leave the premises.

Figure 3.53 Are pupils allowed to leave school premises at lunchtime?


The next series of questions focused on changes in the dining environment in the last year. A little over half of the schools reported that the numbers of lunches served had increased during the last year (Figure 3.54). Over half of the schools in Newham, however, reported that they had stayed the same.

## Figure 3.54 Change in last year in number of lunches served

Base: Responding schools by sample type

|  | Sample type |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham <br> (Pilot A) | Durham (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C | Total |
| Change | N | N | N | N | N | N | N |
| Increased | 4 | 6 | 5 | 8 | 10 | 4 | 37 |
| Decreased | 1 | 2 | 2 | 1 | 1 | 3 | 10 |
| Stayed the same | 7 | 6 | 2 | 2 | 4 | 1 | 22 |
| Bases | 12 | 14 | 9 | 11 | 15 | 8 | 71 |

For most schools, the space available for eating lunch had stayed the same during the last year (Figure 3.55). In Wolverhampton there was more variation, with four of the nine schools reporting that the space had increased and one school saying that the space had decreased.

## Figure 3.55 Change in last year in space available for eating lunch

Base: Responding schools by sample type
Survey


In terms of the number of catering staff, Wolverhampton differed from the other pilot areas in reporting that the number of catering staff had increased in one-third of schools (Figure 3.56). For most of the schools, the number of staff had stayed the same.

Figure 3.56 Change in last year in number of catering staff


The trend continued with changes in the time available for pupils to collect and eat their lunch (Figure 3.57). In Wolverhampton, four of the nine schools reported that the amount of time had increased while for most schools in Newham and Durham, the time had stayed the same.

Figure 3.57 Change in last year in time available for pupils to collect and eat lunch
Base: Responding schools by sample type Survey


The cleanliness of the dining hall was reported to have stayed the same in most schools or to have increased in a minority (Figure 3.58).

Figure 3.58 Change in last year in cleanliness of dining hall


Over half of the schools reported that the choice of healthier options among pupils had increased and just under half said that it had stayed the same (Figure 3.59).


The amount of food that was eaten rather than thrown away had mostly stayed the same or increased, although it had decreased in three of nine Wolverhampton schools (Figure 3.60).

## Figure 3.60 Change in last year in proportion of food eaten rather than thrown away

Base: Responding schools by sample type Survey


The behaviour of pupils was mostly thought to have stayed the same over the last year (Figure 3.61). In a minority of the schools in Newham and Durham, behaviour was considered to have improved and one school in Durham thought that it had got worse. In Wolverhampton, four of the nine schools thought that behaviour had improved.

## Figure 3.61 Perceived change in last year in behaviour of pupils at lunchtime

Base: Responding schools by sample type

|  | Sample type |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham (Pilot A) | Durham (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C |  |
| Change | N | N | N | N | N | N | N |
| Improved | 3 | 1 | 4 | 3 | 2 | 1 | 14 |
| Got worse | 0 | 1 | 0 | 1 | 1 | 0 | 3 |
| Stayed the same | 9 | 12 | 5 | 8 | 12 | 7 | 53 |
| Bases | 12 | 14 | 9 | 12 | 15 | 8 | 70 |

When asked about changes in positive and negative interactions between staff and pupils, most schools thought that these had stayed the same or improved (Figure 3.62, Figure 3.63).

Figure 3.62 Perceived change in last year in positive interactions between staff and pupils at lunchtime
Base: Responding schools by sample type Survey


Figure 3.63 Perceived change in last year in negative interactions between staff and pupils at lunchtime
Base: Responding schools by sample type Survey

| Change | Sample type |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham (Pilot A) | Durham (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C | Total |
|  | N | N | N | N | N | N | N |
| Increased | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Decreased | 2 | 4 | 4 | 3 | 6 | 1 | 20 |
| Stayed the same | 10 | 10 | 5 | 9 | 8 | 6 | 48 |
| Bases | 12 | 14 | 9 | 12 | 15 | 8 | 70 |

## Parents' views of school meals

Parents were also asked about their views of school meals, regardless of whether or not their child took school meals. The majority of parents thought that the quality of school meals was either fairly good or very good (Figure 3.64). The findings were fairly similar across the pilot areas, although parents in Wolverhampton were slightly less likely to say the meals were very good than parents in Newham or Durham (10\% compared with $21 \%$ and $22 \%$ ).

## Figure 3.64 Parent rating of quality of schools meals

Base: Responding parents by sample type Survey


The majority of parents rated the healthiness of school meals as fairly good or very good, with $28 \%$ in Newham, $27 \%$ in Durham and 13\% in Wolverhampton rating them as very good (Figure 3.65).

Figure 3.65 Parent rating of healthiness of schools meals


The choice of meals available was rated as very good or fairly good by $53 \%$ of parents in Newham, 64\% in Durham and 48\% in Wolverhampton (Figure 3.66).

## Figure 3.66 Parent rating of choice of schools meals



The range of school meals was rated more highly by parents in Durham than other pilot areas, with $66 \%$ considering the range fairly or very good compared to $50 \%$ in Newham and $44 \%$ in Wolverhampton (Figure 3.67). The proportion of parents in pilot areas who answered 'don't know' was fairly high ( $36 \%$ in Newham, $21 \%$ in Durham and $32 \%$ in Wolverhampton). .

## Figure 3.67 Parent rating of range of schools meals

Base: Responding parents by sample type
Survey


The majority of parents thought that the dining room facilities were very or fairly good (Figure 3.68). Parents in Newham rated this aspect more highly than those in Durham or Wolverhampton (30\% in Newham thought dining room facilities were very good compared with $22 \%$ in Durham and $15 \%$ in Wolverhampton).

Figure 3.68 Parent rating of dining room facilities
Base: Responding parents by sample type
Survey

|  | Sample type <br> Newham <br> (Pilot A) | Durham <br> (Pilot B) | Wolverhampton <br> (Pilot C) | Control A | Control B | Control C |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

Newham and Durham parents were more likely than those in Wolverhampton to be more positive in their rating of the time taken to serve pupils, with $40 \%$ of parents in Newham rating this as very or fairly good compared with $15 \%$ in Wolverhampton. The majority of parents in Wolverhampton ( $61 \%$ ) rated the time taken to get served as fairly or very poor, as did $56 \%$ of parents in Control C areas, again suggesting that serving time is particularly an issue in secondary schools (Figure 3.69)

## Figure 3.69 Parent rating of time taken to serve pupils

| Base: Responding parents by sample type |  |  |  |  |  |  | Survey |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sample type |  |  |  |  |  |  |
|  | Newham | Durham | Wolverhampton | Control A | Control B | Control C |  |
|  | (Pilot A) | (Pilot B) | (Pilot C) |  |  |  | Total |
| Rating | \% | \% | \% | \% | \% | \% | \% |
| Very good | 12 | 7 | 3 | 7 | 10 | 2 | 8 |
| Fairly good | 28 | 25 | 12 | 33 | 32 | 15 | 26 |
| Fairly poor | 16 | 21 | 30 | 21 | 11 | 31 | 20 |
| Very poor | 4 | 8 | 31 | 5 | 4 | 25 | 10 |
| Don't know | 40 | 39 | 24 | 33 | 42 | 26 | 35 |
| Bases | 370 | 501 | 255 | 509 | 482 | 255 | 2372 |

Durham parents were the most likely to give a positive rating for the value for money of school meals, with $59 \%$ rating this as very or fairly good, compared with $51 \%$ of parents in Newham and 40\% in Wolverhampton (Figure 3.70).

## Figure 3.70 Parent rating of value for money of schools meals

Base: Responding parents by sample type

|  | Sample type <br> Newham <br> (Pilot A) | Durham <br> (Pilot B) | Wolverhampton <br> (Pilot C) | Control A | Control B | Control C |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

When asked how the quality of school meals had changed over the last year, Newham and Durham parents were fairly evenly split between those who thought they had got better, stayed the same or didn't know. Parents in Wolverhampton were more likely to say they had stayed the same (48\%) than got better (16\%) while 9\% of parents in Wolverhampton thought school meals had got worse (Figure 3.71).

Figure 3.71 Parent opinion of how quality of school meals this year compares with last year


## 4 Pupil and School characteristics

### 4.1 Eating habits

The following section focuses on pupils' eating habits on school days. Questions on eating habits were asked to parents of primary school pupils (those in Newham, Durham, Control A and Control $B$ areas) and to the pupils themselves if they were of secondary school age (those in Wolverhampton and Control $C$ areas). The questions covered consumption of food and drink at different times on school days in the seven days before interview.

## Lunchtime arrangements

The lunchtime arrangements of pupils in the survey reflected the selection criteria for the survey which screened out pupils who took school meals on the majority of days. Most commonly, pupils in the survey had a packed lunch and this was true across the pilot and comparison areas. Almost all pupils in Durham had a packed lunch every day (96\%), while around two-thirds (65\%) in Newham did so. More than three-quarters of surveyed pupils in Control A (79\%) and Control B (78\%) areas took a packed lunch every day. Fifty-seven per cent of pupils in Wolverhampton had a packed lunch every day as did a similar proportion in Control C areas (59\%) (Figure 4.1).

Nearly a quarter (23\%) of pupils in Newham had had at least one meal provided by the school in the last week, as had 19\% of pupils in Control A areas. Only $4 \%$ of pupils in Durham had any meals provided by the school while $21 \%$ in Control B areas had done so. Twenty-three per cent of pupils in Wolverhampton had had at least one school meal, as had $26 \%$ of pupils in Control C areas. A small proportion of the pupils surveyed, including $1 \%$ in Newham and $2 \%$ in Wolverhampton reported having school meals on every day in the last week. ${ }^{9}$

Fifteen per cent of pupils in Newham went home for lunch one at least one school day and 9\% ate lunch at home every day. This reflected the finding in the caterer survey (see section 3.5) that around half of the schools in Newham allowed some or all pupils to leave the premises at lunchtime. Fewer than $1 \%$ of pupils in Durham went home for lunch on any day (most Durham schools did not allow pupils to leave the premises). One per cent of pupils in both Control A and Control B areas ate lunch at home every day. In Wolverhampton, $11 \%$ of pupils went home for lunch on at least one day and $9 \%$ ate lunch at home every day, as did $3 \%$ in Control C areas.

Just $1 \%$ of pupils in Newham had bought lunch from a shop or café to eat in school at all in the last week while no pupils in Durham had done this and fewer than $1 \%$ in Control A or B areas had done so. Six per cent of pupils in Wolverhampton and 10\% in Control $C$ areas bought lunch from a shop or café to eat in school on at least one day, probably reflecting greater access to shops and cafes among secondary pupils. A very small proportion of pupils in Wolverhampton (1\%) and Control C $(4 \%)$ areas bought lunch from a shop or café every day.

Five per cent of pupils in Wolverhampton and 6\% of pupils in Control C areas had lunch somewhere other than home or school on at least one day, while $3 \%$ in both Wolverhampton and Control C areas ate somewhere else every day.

[^6]Two per cent of pupils in Wolverhampton and 1\% in Control C areas had not eaten lunch on any school days in the last week. None of the pupils in Newham, Durham or their control areas had not eaten lunch.

24\% of pupils in Newham and 4\% in Durham had a mixture of arrangements for lunch in the last week, as had $20 \%$ of pupils in Wolverhampton.

Figure 4.1 Lunchtime arrangements in last school week


| Mixed arrangement for lunch <br> Yes | 24 | 4 | 20 | 16 | 20 | 19 | 16 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Base | 340 | 457 | 235 | 453 | 456 | 232 | 2173 |
| * |  |  |  |  |  |  |  |

*= less than 0.5\%
$-=0$
If pupils had not had school meals in the last week, parents/ pupils were asked how often the pupil usually had a school meal in the current term (summer term 2009). The majority of these pupils had not had school meals at all in the current term ( $71 \%$ in Newham, $88 \%$ in Durham and $70 \%$ in Wolverhampton). A small proportion of pupils who had not had school meals in the last week (7\% in Newham, 2\% in Durham and 10\% in Wolverhampton) usually had school meals on at least one day a week in the summer term (Figure 4.2).

Including pupils who had had a school meal in the last week and those who reported ever having them in the current term, $43 \%$ of surveyed pupils overall in Newham had school meals at all in the Summer term. This figure was lower in Durham, at 15\%, while in Wolverhampton it was $44 \%$.
Parents/pupils were also asked whether the pupil ever had school meals in the Autumn and Spring terms. In Newham, the proportion ever having school meals in the Spring term (41\%) and Autumn term ( $43 \%$ ) was similar to the Summer term. However, in Durham, the proportion reporting having school meals in the Spring term ( $25 \%$ ) was higher than in the Summer term, and the proportion who had them in the Autumn term (37\%) was higher than for both the other terms. In

Wolverhampton, the proportion of pupils taking school meals did not change significantly by term with $45 \%$ reporting ever having school meals in the Spring term and $48 \%$ in the Autumn term (Figure 4.3).


## Figure 4.3 Ever have school meals in different terms



## School Meal decision-making

If pupils had school meals occasionally, parents/pupils were asked how they decided whether to have school meals or not. There was some variation between the pilot areas in whether parents/ pupils planned ahead to have school meals or decided on the day (Figure 4.4). In Newham there was an almost even split between the proportion of parents who planned ahead (49\%) and the proportion who decided on the day (51\%). In Durham, parents were more likely to plan ahead (57\%) than decide on the day (43\%). In Control A and B areas, around two thirds (67\% and 66\% respectively) of parents said that they planned ahead. In Wolverhampton, pupils were more likely to decide on the day, with $75 \%$ saying they did this and a quarter ( $25 \%$ ) saying they planned ahead. Similarly, $72 \%$ of pupils in Control C areas decided on the day if they were having school meals.

Figure 4.4 Whether plan ahead or decide on the day to have school meals


Base: all who occasionally have school meals

Parents/ pupils who planned ahead to have school meals on particular days were asked how they made these decisions. Decisions tended to be driven by the meals available with almost half (47\%) of parents/pupils saying that they looked at the menus in advance to decide if they would have the school meals. Fifteen per cent said that the decision was driven by family routines (e.g. both parents working on a particular day) while $7 \%$ said it depended on what the child was doing after school. One in ten said that decisions were financially driven as they could only afford to pay for a certain number of days. Five per cent said they had school meals if there was a special event at school (e.g. sports day) while $4 \%$ had meals if there was a special menu day.

## Food consumption at lunchtime

Respondents were asked what foods and drink pupils had for lunch on the most recent day they were at school. Most commonly, pupils were reported to have had a variety of cold foods, as might be expected given that the majority had packed lunches. Pupils in Newham were more likely than those in other pilot areas to have had any hot food for lunch, with $29 \%$ having done so, while $18 \%$ in Durham and 15\% in Wolverhampton had had hot food for lunch (Figure 4.5).


Figure 4.6 shows the ten most commonly consumed food items in the pilot areas. Sandwiches had been consumed by the majority of the surveyed pupils (68\% in Newham, 82\% in Durham and 72\% in Wolverhampton). . Ham or bacon sandwiches were particularly popular in Durham with 35\% of pupils having them. Crisps had been consumed by nearly half of pupils in Durham (49\%) and Wolverhampton (45\%) but only $20 \%$ of pupils in Newham. Nearly two-thirds (65\%) of pupils in Durham had had fruit for lunch, as had $44 \%$ of pupils in Newham. Consumption of fruit for lunch was less common in Wolverhampton (21\%). Pupils in Durham were particularly likely to have had yoghurt or fromage frais for lunch with $56 \%$ of pupils having done so, as had $30 \%$ of pupils in Newham. Just 9\% of pupils in Wolverhampton had had a yoghurt or fromage frais for lunch. Pupils in Durham were also particularly likely to have had biscuits for lunch ( $29 \%$ had done so compared with $10 \%$ of pupils in both Newham and Wolverhampton). Consumption in each pilot area was similar to that in its control areas.

Figure 4.6 Most commonly consumed food at lunchtime
Base: Newham A: 370, Durham: 501, Wolverhampton: 255, Total: 2373
Newham Durham $\square$ Wolverhampton Total


Consumption of different drinks at lunchtime varied between the pilot areas. In Newham, similar proportions of pupils had had a soft drink (28\%), water (25\%) or fruit juice (23\%). In Durham, the proportions of pupils having a soft drink (28\%) or fruit juice (32\%) were similar, while fewer (19\%) pupils had water. In Wolverhampton $30 \%$ of pupils had a soft drink while $15 \%$ had water and $14 \%$ had fruit juice (Figure 4.7).

Figure 4.7 Most commonly consumed drinks at lunchtime
Base: Newham: 370, Durham B: 501, Wolverhampton: 255, Total: 2373


## Eating habits during the rest of the day

Parents and pupils in the survey were also asked about eating habits at different times during the school day: in the morning before going to school, in the morning break, in the afternoon break, on the way home from school and on arriving home.

## Before school

Pupils and parents were asked on how many days pupils ate in the morning before school (this could include eating at home, at school or elsewhere, before the start of the normal school day). Most pupils in Newham (90\%) and Durham (95\%) ate something before school every day. However, in Wolverhampton, only $60 \%$ of pupils ate something before school every day. This was similar to the proportion in Control C areas (65\%), indicating that regular eating before school was less common among secondary school pupils. Nineteen per cent of pupils in Wolverhampton had not eaten anything before school on any school days in the last week. Just 4\% of pupils in Newham and $1 \%$ in Durham had not eaten before school on any days (Figure 4.8).


Types of food most frequently eaten in the morning before school were broadly similar in Newham and Durham. Unsweetened cereals were eaten by more than half of pupils in these areas ( $54 \%$ in Newham and 58\% in Durham), while nearly half had sweetened cereals (43\% in Newham and 46\% in Durham). Thirty-eight per cent of pupils in Newham and 33\% in Durham had wholemeal or brown toast or bread while $32 \%$ and $35 \%$ respectively had white bread or toast. Pupils in Newham were more likely than those in Durham to have eggs ( $21 \%$ compared with $10 \%$ ) while pupils in Durham were more likely to have yoghurt or fromage frais (16\% compared with 6\% in Newham)

Consumption of different foods in the morning followed a similar pattern in Wolverhampton but lower proportions of the secondary pupils in this area tended to have had each type of food compared with Newham and Durham. (Figure 4.9)

Figure 4.9 Most commonly consumed food for breakfast
Base: Newham: 353, Durham: 496, Wolverhampton: 204, Total: 2234


Nearly half of pupils in Newham drank water (49\%) or milk (48\%) in the morning before school while $36 \%$ had fruit juice and $15 \%$ had tea. In Durham, the most common drinks before school were milk ( $43 \%$ ) and fruit juice ( $43 \%$ ), with $27 \%$ having water and $11 \%$ having tea. In Wolverhampton, similar proportions of pupils had water (28\%), fruit juice (26\%) and tea (29\%) while $17 \%$ had milk.

## Eating habits during the day and after school

Figure 4.10 illustrates consumption habits on most days or every day while at school and on returning home from school. Fewer than half of pupils in the pilot areas had something to eat during the morning at school every day or most days (35\% in Newham, $43 \%$ in Durham and 44\% in Wolverhampton). Most pupils did not have anything to eat after lunch before the end of the school day, with $9 \%$ in Newham, $11 \%$ in Durham and $6 \%$ in Wolverhampton doing so on all or most days.

Only a minority of pupils ( $14 \%$ in Newham, $13 \%$ in Durham and $11 \%$ in Wolverhampton) reported usually eating something on the way home from school. However, the majority ate something on their return home from school on all or most days. Around two-thirds of pupils in Newham (66\%) and Wolverhampton (67\%) and 58\% in Durham had eaten something on their return from school on all or most days.

Figure 4.10 Food and drink consumption at different times of the school day: every day or most days.


Most pupils in Newham and Durham who had eaten in the morning at school had had fruit ( $78 \%$ in Newham, $86 \%$ in Durham) with other foods consumed by $10 \%$ or less of pupils in these areas. In Wolverhampton, food consumption in the morning was very different, with almost half (48\%) of pupils who had eaten something having crisps while the other foods most commonly consumed were a chocolate bar (24\%), a sandwich or roll (15\%) and fruit (15\%).

The majority of pupils in Newham (71\%) and Durham (74\%) had water during the morning at school while $37 \%$ of pupils in Wolverhampton had water. Twenty-nine per cent of pupils in Wolverhampton had soft drinks in the morning at school, while just $2 \%$ of pupils in Newham and Durham had them. Fruit juice was consumed during the morning at school by $22 \%$ of pupils in Wolverhampton, higher than in Newham (13\%) or Durham (7\%). Fifteen per cent of pupils in Durham and 7\% in Newham had milk during the morning at school.

Eating patterns on the way home from school were quite different to those observed earlier in a day. Pupils in Newham who ate on the way home most widely consumed ice cream or ice lolly (36\%), crisps (29\%) and fresh fruits (25\%); in Durham pupils were equally likely to have fresh fruit and sweets ( $29 \%$ for both), a quarter ( $25 \%$ ) had ice cream and $22 \%$ had crisps. Pupils in Wolverhampton who ate on the way home most commonly had crisps (32\%), chocolate bars (25\%) and sweets (24\%). Thirteen per cent of pupils in Wolverhampton who ate on the way home had chips. The majority of pupils had nothing to drink on their way home, and if they had a drink most often they had water.

## On arrival home

Parents and pupils were asked if pupils had anything to eat on arrival home from school. Pupils in both Newham and Durham most commonly snacked on fresh fruits ( $37 \%$ and $47 \%$ respectively), crisps ( $35 \%$ and $31 \%$ ) and biscuits ( $33 \%$ and $45 \%$ ). Pupils in Wolverhampton were most likely to have crisps (43\%), followed by biscuits or chocolate bars (both 28\%) and fruit (26\%) (Figure 4.11).

In Newham, the most common drink on arrival home was water ( $60 \%$ ), followed by fruit juice (45\%). Twenty-one per cent of Newham pupils had milk and just $14 \%$ had soft drinks. In Durham, the most popular types of drink, consumed by similar proportions of pupils, were fruit juice (40\%), soft drinks (34\%) and water (33\%), while $16 \%$ had milk. Just over half (51\%) of pupils in Wolverhampton had soft drinks when they returned home from school while a third (33\%) had water and a similar proportion had fruit juice (31\%).

Figure 4.11 Most frequently consumed food as snacks on arrival home from school

Base: Newham: 264, Durham:356, Wolverhampton: 198, Total: 1755


## Evening meals

Parents/pupils were asked what pupils had eaten for an evening meal on the most recent school day. Most pupils had eaten something hot in the evening ( $89 \%$ in Newham, $94 \%$ in Durham and $88 \%$ in Wolverhampton). This proportion of hot food eaten in the evening was much higher than that consumed at lunch time (where only around a quarter of pupils had hot food). A quarter (25\%) of pupils in Newham reported having hot food for both their most recent lunch and evening meals, as did $17 \%$ of pupils in Durham and 13\% in Wolverhampton (Figure 4.12).

Figure 4.12 Consumption of hot food for an evening meal and both for lunch and an evening meal.

| Base: Responding pupils to the survey |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Sample type <br> Newham <br> (Pilot A) | Durham <br> (Pilot B) |  |  |  | Survey |

Parents/pupils were asked on how many school days in the last week the pupil had had different types of food for an evening meal. The types of meal were:

- food from a take-away
- convenience food prepared at home that did not need additional preparation such a ready meal or a frozen pizza
- a meal prepared at home from fresh ingredients
- a meal eaten in a café or restaurant

Most pupils had had at least one meal prepared from fresh ingredients on a school day in the last week ( $96 \%$ in Newham, $93 \%$ in Durham and $90 \%$ in Wolverhampton). Nearly half of pupils in Durham (44\%) and Wolverhampton (48\%) had had convenience food at least once in the last week, but only $21 \%$ of pupils in Newham had had this kind of meal. A similar difference was seen between the control areas with $50 \%$ of pupils in Control $B$ areas having had at least one meal of convenience food compared with $27 \%$ in Control A areas (Figure 4.13).

Nineteen per cent of pupils in Newham, 20\% in Durham and 27\% in Wolverhampton had had food from a takeaway for an evening meal on at least one school day, with similar proportions in the control areas having had this type of meal. Only a small proportion of pupils (4\% in Newham, 6\% in Durham and $7 \%$ in Wolverhampton) had had any meals in a café or restaurant on school days in the last week.

Figure 4.13 Types of food consumed for an evening meal on at least one school day in the last week

| Base: Responding pupils to the survey |  |  |  |  |  |  | Survey |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sample type |  |  |  |  |  |  |
|  | Newham (Pilot A) | Durham (Pilot B) | Wolverhampt on (Pilot C) | Control A | Control B | Control C |  |
| Type of an evening meal | \% | \% | \% | \% | \% | \% | Total \% |
| Convenience food cooked at home |  |  |  |  |  |  |  |
| Yes | 21 | 44 | 48 | 27 | 50 | 41 | 38 |
| No | 79 | 56 | 52 | 73 | 50 | 59 | 62 |
| Base | 369 | 500 | 254 | 508 | 481 | 255 | 2367 |
| Take away food |  |  |  |  |  |  |  |
| Yes | 19 | 20 | 27 | 20 | 22 | 24 | 22 |
| No | 81 | 80 | 73 | 80 | 78 | 76 | 78 |
| Base | 369 | 500 | 254 | 508 | 481 | 255 | 2367 |
| A meal prepared from fresh ingredients |  |  |  |  |  |  |  |
| Yes | 96 | 93 | 90 | 96 | 92 | 94 | 94 |
| No | 4 | 7 | 10 | 4 | 8 | 6 | 6 |
| Base | 369 | 500 | 254 | 508 | 481 | 255 | 2367 |
| A meal from a cafe or restaurant |  |  |  |  |  |  |  |
| Yes | 4 | 6 | 7 | 5 | 8 | 6 | 6 |
| No | 96 | 94 | 93 | 95 | 92 | 94 | 94 |
| Base | 369 | 501 | 254 | 508 | 481 | 255 | 2368 |

Pupils in Newham tended to have a meal prepared from fresh ingredients on most days, with the average being 4 out of 5 school days. Pupils in Newham had the other types of meal on less than one day on average. In Durham, pupils also tended to have a meal made from fresh ingredients on most days ( 3.6 days on average) and had convenience food on 0.8 days on average. Pupils in Wolverhampton had a meal cooked from fresh ingredients on 3.2 days on average and convenience food on 0.9 days on average (Figure 4.14).
$\begin{array}{ll}\text { Figure 4.14 } & \begin{array}{l}\text { Consumption of different types of an evening meal on school days in past seven days: by } \\ \text { average number of days. }\end{array}\end{array}$
Base: Responding pupils to the survey Survey

| Type of an evening meal | Sample type |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham <br> (Pilot A) | Durham Wolverhampt (Pilot B) on (Pilot C) |  |  |  | Control A |  | Control B |  | Control C |  |  |
|  | Mean score | Mean | score | Mean | score | Mean | score | Mean | score | Mean | score | Total <br> Mean score |
| Convenience food cooked at home | 0.34 |  | 0.84 |  | 0.91 |  | 0.43 |  | 0.91 |  | 0.74 | 0.68 |
| Take away food | 0.23 |  | 0.22 |  | 0.32 |  | 0.24 |  | 0.23 |  | 0.28 | 0.25 |
| A meal prepared from fresh ingredients | 4.05 |  | 3.59 |  | 3.20 |  | 4.05 |  | 3.47 |  | 3.38 | 3.67 |
| A meal from a cafe or restaurant | 0.05 |  | 0.06 |  | 0.08 |  | 0.06 |  | 0.08 |  | 0.06 | 0.07 |
| Base | 369 |  | 500 |  | 254 |  | 508 |  | 481 |  | 255 | 2367 |

## Consumption of different types of food

Parents and pupils were asked how often during the day the pupil usually consumed certain food types: fruits, vegetables, crisps, cake and biscuits, and chips (Figure 4.15).

Most pupils were reported to eat fruit at least once a day. Ninety-one per cent of pupils in Newham and $90 \%$ in Durham had fruit at least once a day, while the proportion in Wolverhampton was slightly lower ( $77 \%$ ). The proportions of pupils who had fruit more than once a day were lower, although the majority of pupils in Newham (63\%) and Durham (72\%) were reported to eat fruit more than once a day. However, less than half (46\%) of pupils in Wolverhampton said that they ate fruit more than once a day, as did half (50\%) of pupils in Control C areas.

Vegetables were also eaten at least once a day by most pupils, although the proportions were lower than for fruit ( $82 \%$ in Newham, $78 \%$ in Durham and $75 \%$ in Wolverhampton). Around half of pupils in Newham (52\%) and Durham (49\%) were reported to eat vegetables more than once a day, as were $43 \%$ of pupils in Wolverhampton.

Consumption of crisps showed more variation by area than any other food type listed. Just under half (46\%) of pupils in Newham were reported to have crisps at least once a day, while a higher proportion of pupils in Durham (59\%) were reported to do so. Most pupils in Wolverhampton (80\%) had crisps at least once a day, as did $73 \%$ of pupils in Control $C$ areas, indicating that regular consumption of crisps was common among secondary school pupils. Fewer than one in five pupils in Newham (14\%) and Durham (16\%) were reported to eat crisps more than once a day, but the proportion was higher in Wolverhampton (31\%). A similar pattern was seen across the control areas, again indicating higher consumption among secondary school pupils than primary pupils.

The majority of pupils were reported to eat cakes and biscuits at least once a day, although the proportion was lower in Newham (68\%) than in Durham or Wolverhampton (both 83\%). Three in ten (30\%) Newham pupils reported having biscuits more than once a day, while slightly higher proportions in Durham (37\%) and Wolverhampton (43\%) did so.

Chips proved to be the least frequently consumed food type of those asked about, across all areas. Around a quarter of pupils in both Newham (24\%) and Durham (23\%) had chips at least once a day while a third (34\%) in Wolverhampton did so. Much fewer pupils said that they had chips more than once a day ( $8 \%$ in Newham and Durham and $11 \%$ in Wolverhampton).
$\begin{array}{ll}\text { Figure 4.15 } & \begin{array}{l}\text { Frequency of consumption different types of food: at least once a day and more than once a } \\ \text { day. }\end{array}\end{array}$
Base: Responding pupils to the survey


### 4.2 Attitudes to diet

Parents were asked several questions to gauge their attitudes towards diet and nutrition.

The majority of parents agreed that the child was 'willing to try new foods if offered them'. Agreement with this statement was higher in Newham (70\%) and Wolverhampton (71\%) than in Durham (57\%). Nearly all parents agreed that the child 'knows about healthy eating', with the proportion who strongly agreed being particularly high in Wolverhampton (54\%) (Figure 4.16).

There were much lower levels of agreement with the statement 'parents whose children have school meals do not need to worry so much about what their children eat at home'. Just under a quarter ( $23 \%$ ) of parents in Newham and Wolverhampton agreed with this statement while just $12 \%$ in Durham agreed.

Figure 4.16 Levels of agreement with statements about diet
Base: Responding parents

| Statement | Sample type Newham (Pilot A) | Durham Wolverhampt (Pilot B) on (Pilot C) |  | Control A | Control B | Control C |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | \% | \% | \% | \% | \% | \% |
| Child willing to try new foods |  |  |  |  |  |  |
| Strongly Agree | 16 | 23 | 28 | 19 | 22 | 24 |
| Strongly Agree or Agree | 70 | 57 | 71 | 69 | 59 | 70 |
| Child knows about healthy eating |  |  |  |  |  |  |
| Strongly Agree | 30 | 44 | 54 | 34 | 42 | 40 |
| Strongly Agree or Agree | 86 | 93 | 96 | 87 | 94 | 94 |
| Parents whose children have school meals do not need to worry so much about what their children eat at home. |  |  |  |  |  |  |
| Strongly Agree | 4 | 2 | 5 | 3 | 2 | 4 |
| Strongly Agree or Agree | 23 | 12 | 23 | 17 | 9 | 16 |
| Base | 370 | 501 | 255 | 509 | 482 | 256 |

Parents were asked how often they talked to the child about what they had eaten at school. Around two-thirds of parents in Newham (66\%) and Durham (72\%) said that they did this every day or most days, as did similar proportions of parents in Control A and Control B areas. In Wolverhampton, $58 \%$ of parents said that they talked to their child every day or most days about what they had eaten, higher than in Control C areas (43\%) (Figure 4.17).

Figure 4.176 Percentage of parents who talk to their child about what they ate every day or most days


Base: all responding parents (Newham:370, Durham:501, Wolverhampton:255, Control A:509, Control B:482, Control C:256)

Parents were also asked how they felt a packed lunch that they provided would compare with a school meal in terms of how good they are for the child's health. In Newham and Durham, parents were fairly evenly split between those saying the packed lunch was better, the school meal was better and that they were about the same, with around a third of parents choosing each option. In Wolverhampton, parents were slightly more likely to say that the packed lunch was better (39\%) than that the school meal was better (31\%) (Figure 4.18).

## Figure 4.18 How would packed lunch compare to school meal in terms of being good for child's health

Base: Responding parents

|  | Sample type |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newham <br> (Pilot A) | Durham <br> (Pilot B) | Wolverhampt on (Pilot C) | Control A | Control B | Control C |
|  | \% | \% | \% | \% | \% | \% |
| About the same | 28 | 30 | 28 | 26 | 39 | 25 |
| The packed lunch is better | 35 | 33 | 39 | 45 | 38 | 47 |
| A school meal is better | 35 | 35 | 31 | 27 | 22 | 25 |
| Don't know | 2 | 2 | 2 | 2 | 1 | 3 |
| Base | 370 | 501 | 255 | 509 | 482 | 256 |

### 4.3 Behaviour

A series of questions were included in the survey to capture parents' perceptions of their child's behaviour, focussing on aspects of behaviour which may potentially be affected by diet. These questions were asked in a self-completion module whereby the parent entered their responses directly into the computer without the interviewer being able to see their answers ${ }^{10}$.

Less than one in five parents in any of the pilot areas or the controls thought that it was certainly true that their child was 'restless overactive and cannot stay still for long', with $18 \%$ of parents in Newham, $16 \%$ in Durham and $16 \%$ in Wolverhampton saying this. Similar proportions thought that the description 'easily distracted, concentration wanders' was certainly true of their child (17\% in both Newham and Durham, 23\% in Wolverhampton). The converse statement 'sees tasks through to the end, good attention span' was thought to be certainly true by just over half (51\%) of parents in Newham and around two-fifths of parents in Durham (39\%) and Wolverhampton (41\%) (Figure 4.19).

Three-fifths (60\%) of parents in Newham thought that the description 'generally obedient, usually does what adults request' was certainly true of their child, a view held by around half of parents in Durham (47\%) and Wolverhampton (52\%). While 10\% of parents in Newham and 7\% in Durham thought that the description 'often complains of headaches, stomach aches or sickness' was certainly true of their child, this rose to $20 \%$ in Wolverhampton.

## Figure 4.19 Perceived behaviour: percentages of parents saying statement was 'certainly true'

Base: Responding pupils to the survey

| Statement | Sample type Newham (Pilot A) | Durham Wolverhampt (Pilot B) on (Pilot C) |  | Control A | Control B | Control C |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | \% | \% | \% | \% | \% | \% |
| Restless, overactive and cannot stay still for long | 18 | 16 | 16 | 17 | 17 | 11 |
| Often complains of headaches, stomach aches or sickness | 10 | 7 | 20 | 12 | 7 | 14 |
| Generally obedient, usually does what adults request | 60 | 47 | 52 | 55 | 43 | 49 |
| Easily distracted, concentration wanders | 17 | 17 | 23 | 22 | 15 | 20 |
| Sees tasks through to the end, good attention span | 51 | 39 | 41 | 46 | 44 | 40 |
| Base | 368 | 499 | 254 | 501 | 482 | 254 |

[^7]Parents were also asked in the self-completion module if they thought that their child enjoyed school. Most parents in Newham (83\%) and Durham (78\%) thought that their child enjoyed school all or most of the time, as did similar proportions in Control A (82\%) and Control B (80\%) areas. Lower proportions of parents in Wolverhampton (57\%) and Control C areas (63\%) said that their child enjoyed school all or most of the time, indicating that positive attitudes to school were less common at secondary school age. However, just 4\% of parents in Wolverhampton and 5\% in Control C said that their child did not enjoy school (Figure 4.20).

Figure 4.20 Parents' perceptions of whether child enjoys school


Base: All parents answering (Newham:368, Durham:499, Wolverhampton: 254, Control A:501, Control B:482, Control C:254)

### 4.4 BMI

## Average BMIs

BMI (Body Mass Index) was calculated for pupils in the survey by taking height and weight measurements at the time of interview. Figure 4.21 shows the average BMIs for primary pupils aged $5,6,7,8$ and 9 in Newham, Durham and their control areas. National averages are also shown and are taken from the Health Survey for England (HSE) 2007. Figure 4.22 shows this information for secondary pupils, aged 12,13 and 14.

Average BMIs for each age group were similar across pilot and control areas and were similar to the corresponding national averages, indicating that there was nothing unusual about pupils in the pilot areas in terms of their BMIs. The closeness of the averages obtained in the survey to those obtained in the HSE suggests that the survey measurements were reasonably accurate and that BMI can be used to examine the impact of the pilots.

Figure 4.21 Average BMI among primary pupils
Base: Pupils with valid height and weight measurements

|  |  | Newham (Pilot A) | Durham <br> (Pilot B) | Control A | Sample type |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Control B | HSE 2007 |
| Age |  |  |  |  |  |  |
| 5 | Mean |  |  | 16.12 | 16.58 | 15.85 | 16.23 | 16.31 |
|  | SE of mean | 0.35 | 0.22 | 0.18 | 0.16 | 0.11 |
|  | Base | 66 | 70 | 82 | 90 | 385 |
| 6 | Mean | 15.93 | 16.25 | 16.04 | 15.97 | 16.70 |
|  | SE of mean | 0.29 | 0.19 | 0.23 | 0.19 | 0.13 |
|  | Base | 80 | 94 | 106 | 92 | 413 |
| 7 | Mean | 16.51 | 17.12 | 16.76 | 16.31 | 17.01 |
|  | SE of mean | 0.37 | 0.22 | 0.28 | 0.19 | 0.13 |
|  | Base | 71 | 119 | 107 | 104 | 419 |
| 8 | Mean | 17.33 | 17.72 | 17.32 | 17.72 | 17.26 |
|  | SE of mean | 0.32 | 0.28 | 0.33 | 0.31 | 0.13 |
|  | Base | 80 | 98 | 107 | 78 | 430 |
| 9 | Mean | 17.97 | 18.00 | 17.61 | 17.85 | 18.05 |
|  | SE of mean | 0.42 | 0.31 | 0.36 | 0.41 | 0.14 |
|  | Base | 57 | 84 | 83 | 70 | 451 |

Figure 4.22 Average BMI among secondary pupils
Base: Pupils with valid height and weight measurements

|  |  |  | Sample type |  |
| :--- | ---: | ---: | ---: | ---: |
|  |  | Wolverhampt |  |  |
| on (Pilot C) | Control C | HSE 2007 |  |  |
| Age |  |  |  |  |
| 12 | Mean | 20.75 | 20.68 | 20.11 |
|  |  | 0.51 | 0.45 | 0.16 |
|  | SE of mean | 77 | 88 | 413 |
| 13 | Base | 21.41 | 21.09 | 20.78 |
|  | Mean | 0.50 | 0.47 | 0.18 |
|  | SE of mean | 77 | 73 | 455 |
|  | Base | Mean | 21.86 | 21.00 |
|  | SE of mean | 0.48 | 0.49 | 0.21 .24 |
|  | Base | 68 | 63 | 424 |
|  |  |  |  |  |

## Obesity levels

Figures 4.23 and 4.24 show the proportions of pupils in each pilot and control area who were classified as overweight or obese according to their $\mathrm{BMI}^{11}$. National figures from the Health Survey for England are also shown. The proportions of surveyed primary pupils who were overweight or obese in Newham ( $27.7 \%$ ) and Durham ( $31.5 \%$ ) were similar to the national average for 2 to 10 year olds (28.6\%). While the proportion of overweight or obese primary pupils in Newham was similar to its control areas ( $27.7 \%$ compared with $24.4 \%$ ), in Durham this figure was higher than its control areas ( $31.5 \%$ compared with $24.9 \%$ ).

In Wolverhampton, $44.2 \%$ of the secondary pupils surveyed were classified as overweight or obese. This was higher than the average for 11 to 15 year olds in England (33.3\%). The proportion of secondary pupils in Wolverhampton who were overweight or obese was not significantly different to the proportion in its control areas ( $44.2 \%$ compared with $36.0 \%$ ).

Figure 4.23 Obesity levels among primary pupils

| Base: Pupils with valid height and weight measurements |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Sample type |  |
|  | Newham <br> (Pilot A) | Durham (Pilot B) | Control A | Control B | $\begin{array}{r} \text { HSE } 2007 \\ \text { (2-10 yr olds) } \end{array}$ |
|  | (\%) | (\%) | (\%) | (\%) | (\%) |
| Normal weight | 72.3 | 68.5 | 75.6 | 75.1 | 71.4 |
| Overweight | 12.2 | 16.3 | 9.6 | 13.5 | 13.3 |
| Obese | 15.5 | 15.2 | 14.8 | 11.5 | 15.4 |
| Overweight inc. obese | 27.7 | 31.5 | 24.4 | 24.9 | 28.6 |
| Base | 343 | 479 | 479 | 453 | 3512 |

[^8]Figure 4.24 Obesity levels among secondary pupils
Base: Pupils with valid height and weight measurements

|  |  |  | Sample type |
| ---: | ---: | ---: | ---: |
|  | Wolverhampton <br> (Pilot C) <br> $(\%)$ | Control C | HSE 2007 <br> $(11-15$ yr olds) <br> $(\%)$ |
|  |  |  |  |
| Normal weight |  |  |  |
| Overweight |  |  |  |
| Obese | 55.8 | 64.0 | 66.7 |
| Overweight inc. | 19.0 | 12.8 | 15.1 |
| obese | 25.2 | 23.1 | 18.3 |
|  | 44.2 | 36.0 | 33.3 |
| Base | 226 | 242 | 2166 |

### 4.5 Household characteristics

This section reports on some characteristics of the families interviewed in the survey.

## Income and benefit receipt

Figure 4.23 shows the household income ${ }^{12}$ (before tax) distribution of pupils in the survey. Surveyed pupils in Newham tended to be concentrated towards the lower end of the income distribution with almost a fifth (19\%) having a household income of less than £10,000 per annum and a similar proportion (18\%) having an income between $£ 10,000$ and $£ 14,999$ p.a. Twelve per cent of pupils surveyed in Newham had a household income of more than £40,000 p.a. In Durham, household incomes of those surveyed were more widely distributed. One in ten pupils in Durham had a household income of less than $£ 10,000$ p.a. and a similar proportion ( $11 \%$ ) had a household income of between $£ 10,000$ and $£ 14,999$ p.a. Nearly a quarter ( $23 \%$ ) of pupils surveyed in Durham came from households with incomes of $£ 40,000$ p.a. or more.

In Wolverhampton, where households were screened on income before interview, most pupils interviewed consequently were in households with incomes of $£ 20,000$ or below. Just over a third (34\%) were in households with an annual income of less than $£ 10,000$ and a quarter (25\%) were in households with an income of between $£ 10,000$ and $£ 14,999$ p.a. Just $1 \%$ were in households where annual income was more than £40,000.

Income distributions in the control areas were similar to their respective pilot areas.

## Figure 4.23 Household Income distribution

Base: Responding parents to the survey (excludes those who did not know income or refused information)

|  | Sample type <br> Newham <br> (Pilot A) | Durham <br> (Pilot B) | Wolverhampt <br> on (Pilot C) | Control A |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Control B |  |  |  |  |  |  |$\quad$| Control C |
| :---: |

[^9]Figure 4.24 shows the proportion of parents reporting receipt of each type of benefit and tax credit relevant to eligibility for Free School Meals. In Newham and Durham, only small proportions of parents were in receipt of benefits, the most common being income support ( $11 \%$ in Newham and $6 \%$ in Durham). The majority of parents (64\% in Newham, $73 \%$ in Durham) received Child Tax Credits and more than a third ( $35 \%$ in Newham and $36 \%$ in Durham) received Working Tax Credit. Twenty-three per cent of surveyed parents in Newham and 19\% in Durham did not receive any benefits or tax credits.

In Wolverhampton (where parents were screened in to the survey on the basis of benefit receipt or income) a higher proportion than in Newham or Durham received income support (21\%) but only $5 \%$ or less received other benefits. The majority of parents (72\%) in Wolverhampton received Child Tax Credit and almost half (48\%) received Working Tax Credit. Twelve per cent of parents in Wolverhampton did not receive any benefits or tax credits.

As with income distribution, receipt of benefits and tax credits in the control areas was similar to the corresponding pilot areas.

Figure 4.24 Benefit and tax credit receipt
Base: Responding parents to the survey (excludes those who did not know or refused information)

| Sample type |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Newham <br> (Pilot A) | Durham Wolverhampt (Pilot B) on (Pilot C) | Control A | Control B | Control C |


| Benefit/ tax credit | \% | \% | \% | \% | \% | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Income-based Jobseeker's |  |  |  |  |  |  |
| Allowance | 2 | 1 | 5 | 3 | 2 | 9 |
| Income Support | 11 | 6 | 21 | 8 | 6 | 16 |
| Income-related Employment and |  |  |  |  |  |  |
| Support Allowance | 1 | 1 | 2 | 1 | 1 | * |
| Child Tax Credit | 64 | 73 | 72 | 69 | 73 | 77 |
| Working Tax Credit | 35 | 36 | 48 | 43 | 35 | 49 |
| Guarantee element of State |  |  |  |  |  |  |
| Pension Credit | 1 | * | * | - | * | * |
| Support under part 6 of the |  |  |  |  |  |  |
| Immigration and Asylum Act |  |  |  |  |  |  |
| 1999 | - | - | - | * | - | - |
| None of these | 23 | 19 | 12 | 23 | 21 | 10 |
| Base | 367 | 499 | 254 | 507 | 481 | 255 |

ess than $0.5 \%$

- $=0$


## Ethnicity

The ethnic composition of the surveyed pupils varied greatly between the pilot areas. The majority of pupils surveyed in Newham were Asian (24\% were Indian, 15\% Pakistani and 21\% Bangladeshi). Eleven per cent of the pupils in Newham were Black African. Just $8 \%$ of the surveyed pupils in Newham were White British while $6 \%$ were defined as having an other White background. In Durham, by contrast, nearly all (96\%) of the pupils interviewed were White British. In Wolverhampton, nearly two thirds (64\%) of the pupils surveyed were White British. Fifteen per cent were of Asian Indian origin, while 11\% were Mixed Race. The ethnic composition of the surveyed pupils in each of the control areas was similar to the corresponding pilot area (Figure 4.25).

## Figure 4.25 Ethnicity of surveyed pupils

Base: Responding pupils to the survey

| Sample type |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
| Newham | Durham Wolverhampt | Control A | Control B | Control C |
| (Pilot A) | (Pilot B) on (Pilot C) |  |  |  |


| Ethnic group |  | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | White British | 8 | 96 | 64 | 13 | 95 | 63 |
|  | White other | 6 | 1 | 2 | 5 | 2 | 5 |
|  | Asian - Indian | 24 | - | 15 | 16 | $*$ | 2 |
|  | Asian Pakistani | 15 | 1 | 3 | 21 | - | 3 |
|  | Asian - Bangladeshi | 21 | $*$ | - | 20 | $*$ | 14 |
|  | Asian - other | 3 | - | 1 | 3 | $*$ | $*$ |
|  | Black Caribbean | 3 | - | 4 | 5 | $*$ | 2 |
|  | Black African | 11 | - | $*$ | 7 | - | 3 |
|  | Black other | 1 | - | $*$ | 0 | - | - |
|  | Mixed race | 5 | 1 | 11 | 5 | 1 | 6 |
|  | Chinese | 1 | $*$ | - | 0 | - | - |
|  | Other | 2 | $*$ | $*$ | 6 | $*$ | 1 |
|  |  | 370 | 501 | 255 | 509 | 481 | 256 |

* $=$ less than 0.5\%
- = 0


### 4.6 Attainment

The effect of the FSM pilots on attainment will be measured by comparing the difference in outcomes between pilot and comparison areas amongst the cohort who sat their Key Stage tests in Summer 2009 (i.e. immediately before the introduction of the pilots) with the difference in outcomes between pilot and comparison areas amongst the cohorts who sat their Key Stage tests in Summer 2010 (i.e. after the pilots have been in operation for one year) and Summer 2011 (i.e. after the pilots have been in operation for one year).

Only pupils sitting the Foundation Stage Profile (in Reception, at age 5) and Key Stage 1 (in Year 2, at age 7) tests in Summer 2009 will be sampled as part of the longitudinal survey. However, pupils who are currently in Year 4 and Year 9 will sit their Key Stage 2 (in Year 6, at age 11) and Key Stage 4 (in Year 11, at age 16) tests respectively after the pilots have been in operation for two years, making analysis of the Key Stage 2 and Key Stage 4 results useful as well.

Figures 4.26 and 4.27 compare average Foundation Stage Profile (FSP) and Key Stage 1 results respectively across various groups of interest in the pilot and comparison areas. These groups are:

- All pupils in pilot and comparison authorities;
- All pupils in pilot and comparison authorities whose school meal take-up is known;
- All pupils in pilot and comparison authorities who take-up school meals ("takers");
- All pupils in pilot and comparison authorities who do not take-up school meals ("non-takers");
- All pupils in pilot and comparison authorities who took part in the longitudinal survey. ${ }^{13}$

Figure 4.26 Foundation Stage Profile results

| All pupils in LA | All pupils for <br> whom school <br> meal take-up <br> is known | Takers | Non-takers |
| :---: | :---: | :---: | :---: | | All pupils in |
| :---: |
| longitudinal |
| survey |


| Pilot A: Newham |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pilot A |  |  |  |  |  |
| Total average FSP score | 80.8 | 86.7 | 87.0 | 86.2 | 87.4 |
| Base | 4,074 | 319 | 213 | 106 | 57 |
| Comparison A |  |  |  |  |  |
| Total average FSP score | 85.2 | 92.3 | 92.1 | 92.6 | 91.8 |
| Base | 18,289 | 295 | 180 | 115 | 81 |
| Pilot B: Durham |  |  |  |  |  |
| Pilot B |  |  |  |  |  |
| Total average FSP score | 83.4 | 88.0 | 87.0 | 89.7 | 93.1 |
| Base | 5,243 | 389 | 246 | 143 | 79 |
| Comparison B |  |  |  |  |  |
| Total average FSP score | 86.0 | 85.6 | 85.1 | 85.9 | 85.1 |
| Base | 31,190 | 290 | 137 | 153 | 107 |
| Pilot C: Wolverhampton |  |  |  |  |  |
| Pilot C |  |  |  |  |  |
| Total average FSP score | 80.8 |  |  |  |  |
| Base | 2,804 |  |  |  |  |

These tables focus on analysis of pupils in Newham and Durham (and their respective comparison areas), because only primary school pupils in Newham and Durham (not Wolverhampton) form part

[^10]of our longitudinal survey. We can, however, present average FSP and Key Stage 1 results for all pupils in Wolverhampton as well, which will provide useful background information when assessing the impact of the FSM pilots on these pupils. ${ }^{14}$

Figure 4.27 Key Stage 1 results

| All pupils in LA | All pupils for |
| :---: | :---: | :---: | :---: |
| whom school |  |
| meal take-up |  |
| is known |  |$\quad$ Takers $\quad$ Non-takers | All pupils in |
| :---: |
| longitudinal |
| survey |


| Pilot A: Newham |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pilot A |  |  |  |  |  |
| Average Key Stage 1 points | 14.6 | 15.0 | 14.9 | 15.0 | 15.0 |
| \% reaching expected level in reading | 80.5 | 84.0 | 83.8 | 84.5 | 84.9 |
| \% reaching expected level in writing | 76.3 | 80.9 | 82.2 | 77.5 | 76.7 |
| \% reaching expected level in maths | 85.9 | 88.7 | 88.9 | 88.4 | 86.3 |
| \% reaching expected level in science | 85.2 | 87.2 | 88.3 | 84.5 | 84.9 |
| Base | 3,831 | 445 | 315 | 130 | 73 |
| Comparison A |  |  |  |  |  |
| Average Key Stage 1 points | 14.9 | 14.6 | 14.3 | 15.0 | 14.9 |
| \% reaching expected level in reading | 81.7 | 82.3 | 77.3 | 88.9 | 87.3 |
| \% reaching expected level in writing | 78.0 | 74.3 | 68.2 | 82.2 | 82.7 |
| \% reaching expected level in maths | 87.2 | 86.8 | 84.1 | 90.4 | 89.1 |
| \% reaching expected level in science | 85.9 | 83.6 | 80.7 | 87.4 | 85.5 |
| Base | 16,981 | 312 | 177 | 135 | 110 |
| Pilot B: Durham |  |  |  |  |  |
| Pilot B |  |  |  |  |  |
| Average Key Stage 1 points | 15.0 | 14.8 | 14.3 | 15.3 | 15.5 |
| \% reaching expected level in reading | 83.1 | 81.5 | 75.8 | 87.4 | 90.2 |
| \% reaching expected level in writing | 79.4 | 79.5 | 73.6 | 85.6 | 89.3 |
| \% reaching expected level in maths | 88.7 | 88.6 | 86 | 91.4 | 92.0 |
| \% reaching expected level in science | 86.5 | 86.4 | 83.1 | 89.7 | 92.9 |
| Base | 4,904 | 352 | 178 | 174 | 112 |
| Comparison B |  |  |  |  |  |
| Average Key Stage 1 points | 15.3 | 14.9 | 14.7 | 15 | 15.1 |
| \% reaching expected level in reading | 84.2 | 79.2 | 76.1 | 82.6 | 83.0 |
| \% reaching expected level in writing | 80.2 | 76.9 | 74.8 | 79.2 | 80.4 |
| \% reaching expected level in maths | 89.6 | 88.6 | 88.3 | 88.9 | 88.4 |
| \% reaching expected level in science | 90.0 | 88.6 | 87.7 | 89.6 | 90.2 |
| Base | 29,853 | 308 | 164 | 144 | 112 |
| Pilot C: Wolverhampton |  |  |  |  |  |
| Pilot C |  |  |  |  |  |
| Average Key Stage 1 points | 14.6 |  |  |  |  |
| \% reaching expected level in reading | 82.0 |  |  |  |  |
| \% reaching expected level in writing | 75.1 |  |  |  |  |
| \% reaching expected level in maths | 86.1 |  |  |  |  |
| \% reaching expected level in science | 83.3 |  |  |  |  |
| Base | 2,663 |  |  |  |  |

Notes: a score of 15 means reaching the government's expected level at Key Stage 1. Source: Key Stage 1 results from the National Pupil Database, together with information on school meal take-up collected as part of the evaluation.

Figures 4.26 and 4.27 show that pupils in the comparison areas for Newham and Durham tend to have marginally higher attainment than pupils in Newham and Durham at both the Foundation Stage and Key Stage 1. For example, pupils in Newham score, on average, 80.8 (out of a maximum 117) points at the Foundation Stage, compared with an average of 85.2 points for pupils

[^11]in its comparison areas. Similarly, 86.5 per cent of pupils in Durham reach the expected level in science at Key Stage 1, compared with 90.0 per cent of pupils in its comparison areas. Pupils in Wolverhampton tend to have similar levels of attainment to pupils in Newham and Durham.

For pupils in Newham (and its comparison areas) and Durham, those for whom take-up information is observed, and those included in the longitudinal survey, tend to score somewhat higher, on average, than pupils in the local authority as a whole. For example, pupils included in the longitudinal survey in Durham score, on average, 93.1 points in the FSP compared to 83.4 points for all pupils in Durham. Similarly, 84.9 per cent of pupils included in the longitudinal survey in Newham reach the expected level in reading at Key Stage 1, compared with 80.5 per cent of all pupils in Newham. This suggests that take-up response rates (at both the school and individual levels) tended to be higher for pupils with higher attainment.

Figure 4.28 compares Key Stage 2 (KS2) and Key Stage 4 (KS4) results across pupils in all pilot and comparison areas. In general, pupils in Durham tend to score higher, on average, than pupils in Wolverhampton, who in turn score higher, on average, than pupils in Newham. For example, 73.2 per cent of pupils in Durham reach the expected level at Key Stage 4, compared to 67.9 per cent of pupils in Wolverhampton and 57.7 per cent of pupils in Newham.

Figure 4.28 Average KS2 and KS4 results amongst all pupils in the pilot and comparison areas

|  | Newham <br> (Pilot A) | Durham <br> (Pilot B) | Wolverhampton (Pilot C) | Control A | Control B | Control C |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Key Stage 2 |  |  |  |  |  |  |
| Average KS2 points | 26.4 | 27.8 | 27.1 | 27.4 | 27.4 | 27.7 |
| \% reaching expected level in English | 72.9 | 79.8 | 77.0 | 78.2 | 79.2 | 80.3 |
| \% reaching expected level in maths | 75.5 | 80.9 | 75.6 | 78.1 | 76.7 | 79.5 |
| \% reaching expected level in science | 81.7 | 90.1 | 85.7 | 85.7 | 86.9 | 89.0 |
| Base | 3,791 | 5,609 | 2,941 | 17,228 | 33,790 | 32,467 |
| Key Stage 4 |  |  |  |  |  |  |
| Total KS4 points | 351.0 | 442.4 | 427.7 | 384.2 | 405.7 | 402.8 |
| \% achieving Level 2 (expected level) | 57.7 | 73.2 | 67.9 | 66.4 | 69.3 | 66.1 |
| \% achieving Level 2 inc. Maths and English | 42.7 | 48.3 | 42.9 | 46.0 | 49.1 | 47.9 |
| \% achieving Level 1 | 88.5 | 93.7 | 89.6 | 89.1 | 91.4 | 90.2 |
| Base | 3,820 | 6,162 | 3,076 | 18,234 | 38,988 | 35,791 |

Notes: a score of 27 means reaching the government's expected level at Key Stage 2. At Key Stage 4, 58 points is awarded for a GCSE at Grade A*, 52 points for a GCSE at Grade A, down to 16 points for a GCSE at Grade G. Assuming that most pupils take 10 GCSEs on average, these total point scores suggest that pupils in Newham achieve roughly 10 GCSEs at Grade D. Reaching the government's expected level (Level 2) at Key Stage 4 means achieving 5 GCSEs at Grades A*-C; reaching Level 1 means passing 5 GCSEs (at Grades $A^{*}-G$ ). Source: Key Stage 2 and Key Stage 4 results from the National Pupil Database, together with information on school meal take-up collected as part of the evaluation.

### 4.7 Absences

This section makes use of data from the Summer 2009 School Census to compare rates of absenteeism from school across various groups of interest in the pilot and comparison areas. These groups are:

- All pupils in pilot and comparison authorities (in the relevant years);
- All pupils in pilot and comparison authorities whose school meal take-up is known;
- All pupils in pilot and comparison authorities who take-up school meals ("takers");
- All pupils in pilot and comparison authorities who do not take-up school meals ("non-takers");
- All pupils in pilot and comparison authorities who took part in the longitudinal survey. ${ }^{15}$

| Figure 4.29 | Absences |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | All pupils in LA <br> in relevant <br> years | All pupils for <br> whom school <br> meal take-up <br> is known | Takers | Non-takers | All pupils in <br> longitudinal |
| survey |  |  |  |  |  |


| Pilot A: Newham |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pilot A |  |  |  |  |  |
| \% time absent from school | 6.4 | 6.2 | 6.1 | 6.4 | 6.4 |
| Persistent absentee | 2.6 | 2.5 | 2.7 | 2.0 | 2.2 |
| Base | 19,514 | 2,032 | 1,415 | 617 | 370 |
| Comparison A |  |  |  |  |  |
| \% time absent from school | 6.2 | 6.3 | 6.2 | 6.4 | 6.5 |
| Persistent absentee | 2.9 | 2.4 | 3.0 | 1.7 | 2.1 |
| Base | 86,290 | 1,575 | 915 | 660 | 509 |
| Pilot B: Durham |  |  |  |  |  |
| Pilot B |  |  |  |  |  |
| \% time absent from school | 5.7 | 5.8 | 6.0 | 5.6 | 5.4 |
| Persistent absentee | 2.2 | 2.5 | 3.0 | 1.9 | 1.7 |
| Base | 25,274 | 1,843 | 1,023 | 820 | 500 |
| Comparison B |  |  |  |  |  |
| \% time absent from school | 5.4 | 5.7 | 6.0 | 5.3 | 5.2 |
| Persistent absentee | 2.4 | 2.5 | 2.8 | 2.0 | 1.9 |
| Base | 153,303 | 1,551 | 858 | 693 | 482 |
| Pilot C: Wolverhampton |  |  |  |  |  |
| Primary school pupils |  |  |  |  |  |
| Pilot C |  |  |  |  |  |
| \% time absent from school | 6.5 |  |  |  |  |
| Persistent absentee | 3.6 |  |  |  |  |
| Base | 13,624 |  |  |  |  |
| Secondary school pupils |  |  |  |  |  |
| Pilot C |  |  |  |  |  |
| \% time absent from school | 7.2 | 7.7 | 8.1 | 6.8 | 6.8 |
| Persistent absentee | 4.7 | 4.8 | 5.7 | 2.9 | 2.7 |
| Base | 7,961 | 1,652 | 1,130 | 522 | 255 |
| Comparison C |  |  |  |  |  |
| \% time absent from school | 6.5 | 7.6 | 7.8 | 7.3 | 6.8 |
| Persistent absentee | 4.0 | 6.0 | 6.4 | 5.1 | 3.5 |
| Base | 97,389 | 1,671 | 1,180 | 491 | 255 |

Source: absences information from the Summer 2009 School Census, together with information on school meal take-up collected as part of the evaluation.

[^12]For Newham and Durham, Figure 4.29 focuses on pupils in Reception, Year 1, Year 2, Year 3 and Year 4, while for Wolverhampton, it focuses on pupils in Year 7, Year 8 and Year 9. (In each case, these are the year groups selected for the longitudinal survey.) It also shows absences information for all pupils in the relevant primary school years in Wolverhampton.

Figure 4.29 shows that primary school pupils in Newham and Durham are absent from school around 6\% of the time, with just over $2 \%$ of pupils classified as "persistently absent" (that is, absent for more than about 20\% of the time). Primary school pupils in Wolverhampton are somewhat more likely to be persistently absent than those in Newham and Durham. Secondary school pupils in Wolverhampton, meanwhile, are absent from school around $7 \%$ of the time, with just under $5 \%$ of pupils classified as persistently absent. These figures tend to be slightly higher than in the respective comparison areas.

Rates of absenteeism amongst pupils for whom take-up information is observed, and pupils included in the longitudinal survey, tend to be somewhat lower than for pupils in the authority as a whole. This is particularly true for secondary school pupils in Wolverhampton.

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## Appendix B Technical appendix

## Introduction

This appendix details the methods used in the evaluation of FSM up to the baseline report of November 2009. The design of the study is summarised in the introduction to this report.

## Sampling

The starting point for sampling for the longitudinal survey was the identification of the three pilot areas, which occurred in April 2009. The sample for the study was prepared by IFS with input from NatCen and Susan Purdon, using Pupil Level Annual Schools Census (PLASC) data.

## Selection of pilot area schools

An initial sample was compiled of all maintained schools in the pilot areas excluding special schools and pupil referral units.

Based on assumptions about co-operation with schools and parents it was estimated that 16 primary schools in each of Newham and Durham and 17 secondary schools in Wolverhampton would need to be issued in order to deliver the target number of 10 co-operating schools per pilot area. However, as there were only 18 available schools in Wolverhampton, it was decided to use all of these rather than to randomly exclude one.

It was agreed that the research would be restricted to schools where pupils could be expected to be in the same setting at both the baseline survey and the follow-up survey. This led to the exclusion of a small number of infant and junior schools, as follows:

- 6 schools in Newham (from a total of 64, i.e. around $9 \%$ );
- 29 schools in Durham (from a total of 208, i.e. around 14\%).

For primary schools in Newham and Durham, it was decided to stratify the sample along three dimensions:

- Proportion of students eligible for Free School Meals;
- School size;
- Average point score for students sitting Key Stage 2 exams in the previous year.

Schools which did not have this information were dropped, as follows:

- 1 school in Newham (from a total of 64, i.e. around two per cent);
- 29 schools in Durham (from a total of 208, i.e. around 14\%);

For each category, schools were classified as either above or below the median (calculated separately for each pilot area). Combining these categories generated eight unique groups, from which two schools were randomly selected (to give a total of 16 schools in each pilot area).

The random selection procedure was adjusted to ensure that selected schools were roughly representative according to the type of school, as follows:

1. If two non-community schools were chosen in a particular group, one was replaced with a community school (chosen randomly);
2. If two community schools were chosen and the proportion of non-community schools in the group exceeded $35 \%$, one non-community school was randomly selected to replace one of the community schools in that group.

Following this process, the proportions of community schools in each of our primary school pilot area samples closely matched the proportions in the areas overall:

- $81 \%$ of the Newham sample were community schools compared to $84 \%$ overall;
- $69 \%$ of the Durham sample were community schools compared to $69 \%$ overall;


## Selection of comparison areas and schools

At the outset, all LAs in England were considered as potential comparison areas for the study. Based on assumptions about co-operation with schools and parents it was estimated that the number of issued schools that would be required to deliver the target number of 10 co-operating schools per comparison group would be 40 primary schools ( 20 each to match pilots $A$ and $B$ ) and 22 secondary schools.

The following restrictions were imposed on the LAs and schools that could be used as potential comparison areas:

1. LAs that had applied to operate one of the FSM pilots were excluded, on the grounds that these areas might go ahead and run their own schemes (as the bid required them to set aside funding for this purpose). This eliminated: Barnsley, Barking \& Dagenham, Bristol, Cornwall, Croydon, Dudley, Gateshead, Halton, Sandwell and Waltham Forest.
2. Other LAs and schools were excluded on the advice of the School Food Trust due to the existence of special activities that would render them unsuitable for use as comparators, for example, Islington, Bishop Challoner School in Tower Hamlets ${ }^{16}$.
3. Other LAs were excluded because they contained too few schools (City of London and Isles of Scilly).

For the remaining areas and schools, kernel-based propensity score matching was used (imposing common support and a bandwidth of 0.01 ) to choose schools in comparison areas that best matched our issued sample of schools in pilot areas. The matching process was carried out separately for each pilot area, ${ }^{17}$ and used the following characteristics: school type (community vs. non-community); whether school is gender mixed; school size; number of full-time equivalent teachers; proportion of students eligible for FSM; proportion of students eligible for FSM who takeup school meals; proportion of students with special educational needs; proportion of White British students; average point score (at Key Stage 2 for primary schools and Key Stage 4 for secondary schools) in previous four years; school contextualised value-added score.

For each potential comparison LA, the average weight was calculated across the six ${ }^{18}$ schools that provided the best matches for the issued sample of pilot schools. This led to the selection of 10 LAs which had the highest average weights as potential comparisons for each pilot area (see Figure B.a).

[^13]The kernel-based matching procedure was then re-run, restricting the potential comparison sample to the top six schools in each of these LAs. (For this common support was not imposed and a bandwidth of 0.15 was used instead of 0.01 .)

Imposing these restrictions lead to three pilot schools in Newham not being appropriately matched to schools in our potential comparison areas. (All schools in Durham and Wolverhampton were appropriately matched.) Each of these primary schools was replaced with another school of the same type (community or non-community) in their stratification group (i.e. with similar characteristics in terms of size, the proportion of students eligible for FSM and previous Key Stage results).

The matching procedure (as specified above) was then re-run with the new pilot school selection and the average weight across the top four schools in each LA calculated. The final sample selection used the top four schools within the five LAs with the highest average weights. The LAs finally selected are shown in Figure B.a. In three cases, areas that were selected on these criteria were rejected as unsuitable. The reasons for this are detailed in the final column of Figure B.1.

Figure B. 2 Selection of comparison areas

| Pilot areas | 10 areas with best <br> matches | The 5 comparison <br> areas finally <br> selected | Notes on initially selected areas that <br> were rejected |
| :--- | :---: | :---: | :--- |
| A) (Pilot | Birmingham <br> Bradford <br> Enfield <br> Haringey <br> Leicester City <br> Manchester <br> Redbridge <br> Southwark <br> Tower Hamlets <br> Wandsworth | Enfild <br> Haringey <br> Manchester <br> Redbridge <br> Wandsworth | Leicester was originally selected but <br> SFT advised that it was not suitable. <br> Southwark and Bradford were then <br> considered but rejected because of the <br> difficulties of finding sufficient numbers <br> of interview staff (given the number of <br> central London areas already selected) <br> and on the advice of the SFT <br> respectively. Leicester was then <br> replaced with Enfield. |
| Durham (Pilot <br> B) | Coventry <br> Devon <br> Hackney <br> Kent | Kent <br> Lincolnshire <br> Norfolk <br> Slymouth | South Tyneside <br> Wirral |

## Selection of pupils in pilot areas

The target starting sample sizes (before parental opt-out) were:

- 30 pupils per year per school in Newham and Durham;
- 37 pupils per year per school in Wolverhampton.

Individuals with missing IMD, IDACI, LEASIS or ACORN data and those in the wrong academic year (on the basis of their month of birth) were excluded (about $2 \%$ of the sample). Also excluded were those pupils who were born from March onwards in the Reception year in Newham and its associated comparison areas (just over 1,000 individuals in total). ${ }^{19}$

The evaluation was particularly concerned with the effect of the FSM pilots on the poorest students, especially those who become entitled to FSM through the switch from the old to the new eligibility criteria. To be able to target our sample as accurately as possible, a good measure of household income was required. The only available measure that gave any indication of household income was whether the child was eligible for Free School Meals in the Autumn 2009 census. This information was supplemented by postcode-level indicators of household type (based on ACORN data) and an SOA-level measure of children living in poverty (IDACI score). Principal components analysis was used to generate a continuous measure of socio-economic status (SES). ${ }^{20}$

For each pilot area, the sample was split into quartiles on the basis of this SES measure. The same cut-offs were then used to classify the respective comparison samples.

After consultation within the consortium and with DCSF, the following sample weights for pilot areas were chosen:

- Bottom SES quartile: 7/15
- $3^{\text {rd }}$ SES quartile: $5 / 15$
- $2^{\text {nd }}$ SES quartile: $2 / 15$
- Top SES quartile: $1 / 15$

In this way, the bottom two SES quartiles were over-sampled relative to the top two quartiles such that they provided 12/15 instead of half of the survey sample.

Another modification to the sampling method was to make the probability of choosing a particular pupil related to the size of their school year, so that more pupils could be selected from the larger school years.

Within these constraints, pupils were selected randomly within categories. The numbers selected are shown in Figure B.3.

[^14]Figure B. 3 Sample of pupils for pilot areas

| Pilot areas | Number of available <br> pupils | Number of pupils <br> selected | Number selected as <br> proportion of those <br> available |
| :--- | :---: | :---: | :---: |
| Newham | 4,084 | 2,354 | $59 \%$ |
| Durham | 1,992 | 1,961 | $100 \%$ |
| Wolverhampton | 7,722 | 2,132 | $28 \%$ |

## Selection of pupils in comparison areas

Pupils in comparison areas were selected using nearest neighbour propensity score matching (without replacement).

## Pupils were matched on a range of individual and school controls:

- Individual: SES, gender, ethnicity ${ }^{21}$, whether the pupil has statemented or non-statemented special educational needs and month of birth.
- School: as per school selection above, plus the size of each school year relative to others in the pilot and other comparison areas. ${ }^{22}$

For secondary schools in Wolverhampton and its associated comparison areas, pupils were matched within SES strata. (This was not possible for primary schools in Newham and Durham, due to the much smaller sample sizes.)

It should be noted that no restrictions were placed on the number of pupils who could be interviewed per school (or school year), so samples were not necessarily equally distributed across schools or school years.

## Recruitment of schools

Once the selection process was complete, NatCen contacted the selected schools to ask them to co-operate with the research. Letters were sent to the chief executive of the local authority, the headteacher and the chair of the school governors on 5 May 2009. The study name was given as 'Study of Children's meals in school and at home' and the letters explained that the purpose of the study was to examine take-up of school meals and the relationship between school meals and children's outcomes including diet, health, behaviours, concentration and attainment. The letter stated that the school's help was sought with classifying whether pupils took school meals and assisting with a telephone survey with a catering manager to obtain more information about the provision of meals and dining facilities at the school. It was explained that some parents of pupils would be contacted directly for a survey interview in their homes.

In order to seek parent agreement for providing this information, schools were asked to send an opt-out letter to the parents and guardians and allow two weeks for parents or guardians to opt out

[^15]on their child's behalf if they wished to do so. NatCen drafted the opt-out letter and provided each school with copies for mailing. At the end of the two week opt-out period it identified from the school which parents had not opted out and collected the school's classification of their take-up of school meals.

Each school was asked to classify a list of their pupils that had been selected from the NPD according to whether or not they took any school meals. Schools were asked to use the last week as a reference point so that if a pupil has taken at least one school lunch during the last week that counted as 'takes school meals' and if they haven't taken school lunch at all during past week that counted as 'doesn't take school meals'. It was explained that the classification should refer to meals eaten at lunch time only, not snacks at break time. The calls to the schools were made by a clerical team based at NatCen's Brentwood offices.

The timetable for contacts with schools was constrained by the need to administer an opt-out mailing and identify pupils in time for fieldwork to be completed in the Summer term. The contacting process began on 6 May 2009 and schools were recruited in the following two weeks. Of 120 schools issued, 79 were recruited to help with the research ( $66 \%$ ). Of these schools, 74 went on to administer the opt-out mailing and return information to classify take up of school meals by the final cut off date of 17 June (this exceeded the target of 65 schools). Full details of school co-operation rates are shown in Figure B.4.

Figure B. 4 Co-operation rates with schools by sample category

| Sample group | Initial recruitment |  |  |  | Sample compilation |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Issued |  | Recruited | Recruitment rate | Recruited but not projected to return take up data | Recruited and projected to return take up data | Sample compilation rate |
| Pilot A | 16 | 2 | 14 | 88\% | 1 | 13 | 93\% |
| Pilot B | 16 | 1 | 15 | 94\% | 0 | 15 | 100\% |
| Pilot C | 18 | 6 | 12 | 67\% | 2 | 10 | 83\% |
| Control <br> A | 25 | 12 | 13 | 52\% | 1 | 12 | 92\% |
| Control <br> B | 27 | 11 | 16 | 59\% | 1 | 15 | 94\% |
| Control C | 18 | 9 | 9 | 50\% | 0 | 9 | 100\% |
| Total | 120 | 41 | 79 | 66\% | 5 | 74 | 94\% |

## Classification of the school sample of pupils

It was possible to classify take-up of school meals for $93 \%$ of pupils who had been sampled for cooperating schools (Figure B.5). Just 2\% of records were lost due to opt-outs while 4\% were recorded as having left the school.

Figure B. 5 Return of take-up data for pupils in co-operating schools

|  | Sampled |  | Missing / unclear | Left school | Opt out | Returned |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% |  |  |  | N | \% |
| Pilot A | 1973 | 100\% | 1\% | 5\% | 4\% | 1783 | 90\% |
| Pilot B | 1905 | 100\% | 0\% | 4\% | 1\% | 1808 | 95\% |
| Pilot C | 1176 | 100\% | 1\% | 2\% | 3\% | 1113 | 95\% |
| Control A | 789 | 100\% | 0\% | 6\% | 2\% | 728 | 92\% |
| Control B | 1115 | 100\% | 0\% | 2\% | 1\% | 1078 | 97\% |
| Control C | 1096 | 100\% | 0\% | 4\% | 4\% | 1008 | 92\% |
| Total | 8054 | 100\% | 0\% | 4\% | 2\% | 7518 | 93\% |

Among pupils for whom details were returned, $38 \%$ of those in primary schools and $29 \%$ of those in secondary schools were classified as non-takers of school meals (Figure B.6). It is to be remembered that our samples were skewed towards pupils in deprived areas, many of whom would already qualify for free school meals, and this is likely to explain why take-up rates are higher than reported take-up rates for pupils as a whole (for example in the SFT's research).

Figure B. 6 Classification of pupils in co-operating schools as takers and non-takers of school meals

|  | School meal take-up |  |
| :--- | ---: | ---: |
|  | Takers | Non-takers |
| Pilot A | $70 \%$ | $30 \%$ |
| Pilot B | $57 \%$ | $43 \%$ |
| Pilot C | $70 \%$ | $30 \%$ |
| Control A | $60 \%$ | $40 \%$ |
| Control B | $57 \%$ | $43 \%$ |
| Control C | $72 \%$ | $28 \%$ |
|  |  |  |
| - primary schools | $62 \%$ | $38 \%$ |
| - secondary schools | $71 \%$ | $29 \%$ |
|  |  |  |
| Total | $64 \%$ | $36 \%$ |

Pupils who were classified as non-takers of school meals constituted the school sample that was prepared for the survey. Checks were made for duplicates, whereby there were two or more pupils in the same household. In these cases, one child was selected randomly and this resulted in $8 \%$ of the sample being removed. A final school sample of 2,420 pupils was issued.

## Additional sample of pupils

The school-based identification of pupils who were not taking school meals yielded too few cases for the study's sample targets to be achieved. It was therefore necessary to consider alternative ways of increasing the sample of pupils covered by the research, so that the study's research objectives could be achieved. It was decided to issue parents and pupils from schools that were not able to co-operate with the sample compilation process. As we would not know whether these pupils took school meals, this would involve contacting the parents and checking whether their child took school meals. This implied that a higher number of parents than originally planned would need to be contacted to achieve sample targets of parents of pupils who were not taking school meals.

Two other options for boosting the sample (selecting additional schools and selecting additional pupils from recruited schools) were rejected because there would be insufficient time to do this, administer an opt-out mailing and complete the survey fieldwork within the timetable.

As with the school sample, checks were made for duplicates and one child was randomly selected for each household with multiple selected children. An additional sample of 4,141 cases was issued, making a total issued sample of 6,561 .

## Ethical review

The design of the longitudinal survey and administrative data collection was reviewed by NatCen's internal Research Ethics Committee in April 2009. The design was approved, subject to three minor points:

- Given potential literacy problems, researchers should be briefed on what to tell children and parents about the survey (this was covered in the fieldwork briefings).
- Helpline leaflets should be given to children and researchers should be briefed on how to deal with children exhibiting body image issues or with eating disorders (this was done).
- The opt-out letter sent out by the school asking permission to pass on details about school meal status should refer to selection for a survey (some text was added to explain that if the child was selected for the survey a separate letter would be sent).


## Development of the parent and pupil interview

The questionnaire was developed in April and May 2009 by NatCen with input from DCSF, DoH, IFS and the SFT.

The questionnaire was designed to be mostly completed by a parent or guardian who had the main responsibility for shopping and cooking for the selected child (interviewers were instructed to use this phrase to help them to identify the appropriate person).

Screening questions were included in the sample sheet (the address record form) so that interviewers could make the following checks:

- That child did not take school meals in the current term (parents were screened out if school meals were taken at least three times in the most recent week)
- In Pilot C and its control areas: that income did not exceed levels for eligibility (parents were screened out if their income was clearly above the extended eligibility level).

Questions about eating habits and diet were asked of a combination of parents and pupils, depending on the pupil's age, as follows:

- Aged under 11 (at primary school): questions asked to the parent / guardian
- Aged 11 or over (at secondary school): questions asked to child.

In developing questions about eating habits and diets, it was decided to focus on the consumption of food types and food behaviours for which the pilots might be expected to have an impact, for example consumption of fruit and vegetables and buying snacks on the way home from school. It was agreed that it would not be feasible to capture children's total dietary intakes or detailed nutrient intakes. Questions about food types were developed with reference to other surveys, including the Scottish Sugar Study and the National Diet and Nutrition Survey (NDNS).

Questions about household composition and demographics were taken from the NDNS. The Income question was taken from the NDNS but the scale was adjusted so that the eligibility limit for FSM could be identified.

The protocols for height and weight measurements were consistent with NDNS and the Health Survey for England, both of which are also conducted by NatCen, and the same equipment was also used.

An expert panel was held on 19 May 2009 to review the full questionnaire. This was attended by: Michele Weatherburn (DCSF), Michael Nelson (SFT), Jo Nicholas (SFT), Mark Bush (Food Standards Agency), Bev Bates and Caireen Roberts (NatCen's NDNS team) and Sarah Kitchen and Ola Turczuk of the research team. The following changes were the main ones agreed at the panel:

- Plans to use a standard strengths and difficulties questionnaire (SDQ) were dropped since this was judged not to be suitable for measuring perceptions of behaviour that would be relevant to the FSM pilots.
- Use of food frequency questions was prioritised to a small number of key categories, such as fruit, vegetables, crisps and cakes. It was decided to collect the number of times each of these food types was consumed each day.
- Draft questions on 'usual' eating habits were modified to be asked specifically about school days within the last seven days.
- Draft questions about consumption of food at morning and afternoon breaks were modified to encompass any consumption during the morning or afternoon, not just at break times.
- Questions about who provided food consumed during the day were added (whether provided from home, provided by the school or bought from school, or bought outside school
- Draft questions about lunchtime consumption were modified to include information about where the food was eaten (in school, at home, at a friend or relative's home or somewhere else).
- Additional questions about consumption of drinks were added.


## Fieldwork and response

## Briefings

The fieldwork for the survey was conducted by fully-trained NatCen interviewers who were briefed on the conduct of the survey by members of the research team in face-to-face briefings. A total of 13 briefings were held between 8 and 19 June 2009 in eight regional centres (Birmingham, Brentwood, Derby, Leeds, Liverpool, London, Manchester and Newcastle).

## Fieldwork and response

The parent and child survey fieldwork was carried out between 17 June and 26 July 2009. Details of response to the baseline parent and pupil survey are shown in Figures B. 7 to B.10. On each table, response figures are presented separately for the school sample and the additional sample, as well as for the total sample.

Figure B. 7 shows the screening response rate, that is the proportion of issued cases for which a screening interview was completed. This proportion was $83 \%$ overall ( $85 \%$ for the schools sample and $82 \%$ for the additional sample).

In total, $8 \%$ of the issued sample were found to have moved, indicating that the NPD did not have up to date contact details for these pupils. In $7 \%$ of cases the screening was not carried out because there was no contact with the household. Explicit refusals to give screening information were very low (1\%).

Figure B. 7 Screening response

| Outcome | Schools sample |  | Additional sample |  | Total sample |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | n | \% | n | \% | n | \% |
| Issued | 2420 | 100\% | 4141 | 100\% | 6561 | 100\% |
| Not screened - moved | 179 | 7\% | 347 | 8\% | 526 | 8\% |
| Not screened - no contact | 123 | 5\% | 294 | 7\% | 417 | 6\% |
| Not screened - refusal to office | 49 | 2\% | 37 | 1\% | 86 | 1\% |
| Not screened - contact made but info refused | 14 | 1\% | 41 | 1\% | 55 | 1\% |
| Not screened - contact made but info not obtained | 7 | 0\% | 11 | 0\% | 18 | 0\% |
| Total not screened | 372 | 15\% | 730 | 18\% | 1102 | 17\% |
| Screening response rate (a) | 2048 | 85\% | 3411 | 82\% | 5459 | 83\% |

Figure B. 8 shows the eligibility rate, that is the proportion of screened cases where the pupil was found to be eligible due to taking school meals (for any of the pilots) or on income grounds (for secondary school pupils only). As expected, the rate of eligibility was much higher for the schools sample, where schools had advised us that the pupil was eligible, than for the additional sample where eligibility had to be checked for the first time on the doorstep ( $83 \%$ compared with $39 \%$ ).

Figure B. 8 Eligibility rate

| Outcome | Schools sample |  | Additional sample |  | Total sample |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | n | \% | n | \% | n | \% |
| Total screened | 2048 | 100\% | 3411 | 100\% | 5459 | 100\% |
| Ineligible - not attended school in 2 weeks | 14 | 1\% | 52 | 2\% | 66 | 1\% |
| Ineligible - $3+$ school meals in week | 204 | 10\% | 1738 | 51\% | 1942 | 36\% |
| Ineligible at income screening | 132 | 6\% | 282 | 8\% | 414 | 8\% |
| Other ineligible | 5 | 0\% | 10 | 0\% | 15 | 0\% |
| Total ineligible | 355 | 17\% | 2082 | 61\% | 2437 | 45\% |
| Total eligible | 1693 | 83\% | 1329 | 39\% | 3022 | 55\% |

Ten per cent of pupils in the school sample (where schools had indicated that the pupil did not take school meals) were found to have taken school meals on three or more days in the past seven days. This discrepancy is likely to have been due to variations in behaviour across the term (i.e. pupils may not have had school meals in the reference week used by the school but had done so in the week prior to the interviewer calling). In the additional sample, where school meal status had not been provided by schools, just over half of pupils (51\%) were found to have taken school meals on three or more days. The much larger ineligibility rate in the additional sample shows how the original method of identifying school meal status via schools made the fieldwork process much more efficient than under the alternative method.

Figure B. 9 shows the interview response rate, that is the proportion of screened and eligible cases where an interview was taken. This was $84 \%$ for the schools sample and $71 \%$ for the additional sample, a rate of $79 \%$ overall.

We think that the main reason for the lower response rate for the additional sample was that these parents had not been contacted by the schools through an opt-out mailing to cover provision of take-up data to the evaluation. These parents had therefore not had the study explained to them earlier and had not been given an earlier opportunity to withdraw. Moreover, they had not had the reassurance of hearing about the study via their child's school. These factors help explain the higher refusal rate for the additional sample. A second factor will have been the shorter fieldwork period for the additional sample, which helps explain the higher rate of other unproductive cases in the additional sample.

Figure B. 9 also shows the overall response rate for the study, which is obtained by multiplying the screening response rate with the interview response rate. The overall response rate was $71 \%$ for the schools sample and $59 \%$ for the additional sample ( $65 \%$ overall).

Figure B. 9 Response from eligible sample

| Outcome | Schools sample |  | Additional sample |  | Total sample |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | n | \% | n | \% | n | \% |
| Total eligible | 1693 | 100\% | 1329 | 100\% | 3022 | 100\% |
| Refusal (eligible respondent) | 206 | 12\% | 250 | 19\% | 456 | 15\% |
| No contact with eligible respondent | 16 | 1\% | 19 | 1\% | 35 | 1\% |
| Other unproductive | 46 | 3\% | 110 | 8\% | 156 | 5\% |
| Interview response rate (b) | 1425 | 84\% | 950 | 71\% | 2375 | 79\% |
| Overall response rate (= a x b; i.e. <br> screening response rate x interview response rate) |  | 71\% |  | 59\% |  | 65\% |

Height and weight measurements were both carried out with $96 \%$ of sampled children whose families were interviewed, a very good rate of participation.

## Response by area

Overall response rates were higher in Durham (81\%) than in Newham (63\%) or Wolverhampton ( $57 \%$ ). A similar patter was observed for the comparison areas where the response rates for Pilot B areas (70\%) were higher than those for Pilot A (62\%) or Pilot C areas (55\%). We think that there are two factors evident here. Firstly, the lower response rates in Newham, Wolverhampton and their comparison area reflected higher incidence of movers and addresses where no contact was
made than for the other, relatively rural areas. Secondly, response rates among families of secondary school pupils, in Wolverhampton and its comparisons areas, were lower than among families of primary school pupils.

The rate of eligibility for interview was much lower in Wolverhampton and Pilot C comparison areas ( $36 \%$ in both) than in other areas, due to the additional requirement to screen for income as well as the taking of school meals.

Figure B. 10 Fieldwork outcomes by pilot and control areas

|  | Total | Newham (Pilot A) | Durham (Pilot B) | Wolverhampton (Pilot C) | Comparison areas for A \# | $\begin{array}{r} \text { Compari- } \\ \text { son } \\ \text { areas } \\ \text { for B \# } \end{array}$ | Comparison areas for C \# |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Issued | 6561 | 879 | 695 | 1233 | 1442 | 1008 | 1304 |
| Screened \% of issued | 5459 $83 \%$ | 698 $79 \%$ | 625 $90 \%$ | 1015 $82 \%$ | 1155 $80 \%$ | 856 $85 \%$ | 1110 $85 \%$ |
| Eligible <br> \% of screened | 3022 $55 \%$ | 469 $67 \%$ | 555 $89 \%$ | 366 $36 \%$ | 654 $57 \%$ | 582 $68 \%$ | 396 $36 \%$ |
| Productive interview \% of eligible | 2375 $79 \%$ | 370 $79 \%$ | 501 $90 \%$ | 255 $70 \%$ | 510 $78 \%$ | 482 $83 \%$ | 257 $65 \%$ |
| Overall response rate | 65\% | 63\% | 81\% | 57\% | 62\% | 70\% | 55\% |

\# Comparison areas were:
A Redbridge, Manchester, Haringey, Wandsworth, Enfield
B Norfolk, Wirral, Sefton, Kent, South Tyneside
C Nottinghamshire, Kirklees, Tower Hamlets, Northamptonshire, Lincolnshire

## School caterer interview

At the same time as the longitudinal survey, in June 2009, a short telephone interview was administered with catering managers in the schools that co-operated with the classification of take up of school meals. The person to contact for these interviews was identified via the school office. Interviews were completed with catering managers in 71 schools out of the 74 schools that provided take-up data. The questionnaire collected information about the ways in which school meals were delivered in the school and any ways in which that had changed in the past year.

## Analysis

All the survey findings in this report are unweighted. It was decided not to apply analysis weights at this stage since the sample of parents and pupils was known to be skewed towards households with lower income, reflecting the main focus of the FSM pilots. Moreover, since the purpose of this
report is to profile the achieved sample of pupils in order to establish a baseline, rather than to establish prevalence figures for the population as a whole, it was felt to be inappropriate to weight.

It is expected that analysis weights may be applied when the follow-up survey is completed. The purpose of weights at that stage would be to improve the matching between the achieved samples in pilot and control areas so that the impacts of the FSM pilots can be identified.

## FSM eligibility and take-up

Table: FSM eligibility and take-up of school meals amongst those who are eligible for FSM

|  | (1) <br> All pupils in LA | (2) <br> All pupils in schools on survey long-list | (3) <br> All pupils on survey long-list | (4) <br> All pupils on survey long-list whose meal take-up is known | (5) <br> All pupils on survey long-list who take-up school meals | (6) <br> All pupils on survey long-list who do not takeup school meals | (6a) <br> All pupils on survey long-list whose take-up information was obtained through their school and who do not takeup school meals | (6b) <br> All pupils on survey long-list whose take-up information was obtained on the doorstep and who do not takeup school meals | (7) <br> All pupils in longitudinal survey |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pilot A: Newham (primary school pupils) |  |  |  |  |  |  |  |  |  |
| Pilot A <br> \% eligible for FSM <br> \% take-up amongst FSM | $\begin{aligned} & 33.6 \\ & 87.8 \end{aligned}$ | $\begin{aligned} & 33.3 \\ & 88.1 \\ & \hline \end{aligned}$ | $\begin{aligned} & 35.1 \\ & 87.0 \end{aligned}$ | $\begin{aligned} & 34.8 \\ & 87.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & 45.5 \\ & 86.8 \\ & \hline \end{aligned}$ | $\begin{aligned} & 10.2 \\ & 88.9 \end{aligned}$ | $\begin{gathered} 9.8 \\ 90.5 \\ \hline \end{gathered}$ | $\begin{aligned} & 13.3 \\ & 77.6 \\ & \hline \end{aligned}$ | $\begin{gathered} 7.6 \\ 88.1 \\ \hline \end{gathered}$ |
| Sample size | 19,514 | 15,968 | 3,814 | 2,032 | 1,415 | 617 | 542 | 75 | 370 |
| Comparison A <br> \% eligible for FSM <br> \% take-up amongst FSM | $\begin{aligned} & 30.0 \\ & 86.8 \end{aligned}$ | $\begin{aligned} & 31.6 \\ & 85.9 \\ & \hline \end{aligned}$ | $\begin{aligned} & 32.8 \\ & 87.7 \end{aligned}$ | $\begin{aligned} & 37.0 \\ & 89.6 \\ & \hline \end{aligned}$ | $\begin{aligned} & 57.5 \\ & 90.4 \\ & \hline \end{aligned}$ | $\begin{gathered} 8.6 \\ 88.4 \\ \hline \end{gathered}$ | $\begin{gathered} 6.3 \\ 89.5 \\ \hline \end{gathered}$ | $\begin{aligned} & 10.5 \\ & 87.6 \end{aligned}$ | $\begin{gathered} 8.6 \\ 87.6 \\ \hline \end{gathered}$ |
| Sample size | 86,290 | 39,448 | 8,709 | 1,575 | 915 | 660 | 288 | 372 | 509 |
| Pilot B: Durham (primary school pupils) |  |  |  |  |  |  |  |  |  |
| Pilot B <br> \% eligible for FSM <br> \% take-up amongst FSM | $\begin{aligned} & 22.5 \\ & 85.4 \end{aligned}$ | $\begin{aligned} & 28.5 \\ & 84.4 \end{aligned}$ | $\begin{aligned} & 23.5 \\ & 81.7 \\ & \hline \end{aligned}$ | $\begin{aligned} & 22.7 \\ & 81.5 \\ & \hline \end{aligned}$ | $\begin{array}{r} 33.3 \\ 82.0 \\ \hline \end{array}$ | $\begin{gathered} 9.5 \\ 80.9 \\ \hline \end{gathered}$ | $\begin{gathered} 9.6 \\ 80.5 \\ \hline \end{gathered}$ | $\begin{array}{r} 5.9 \\ 100 \\ \hline \end{array}$ | $\begin{gathered} 6.4 \\ 81.3 \\ \hline \end{gathered}$ |
| Sample size | 25,274 | 6,522 | 1,939 | 1,843 | 1,023 | 820 | 803 | 17 | 500 |
| Comparison B <br> \% eligible for FSM <br> \% take-up amongst FSM | $\begin{aligned} & 16.5 \\ & 84.3 \end{aligned}$ | $\begin{aligned} & 26.5 \\ & 83.2 \end{aligned}$ | $\begin{aligned} & 32.8 \\ & 84.2 \\ & \hline \end{aligned}$ | $\begin{aligned} & 27.2 \\ & 84.7 \\ & \hline \end{aligned}$ | $\begin{aligned} & 42.3 \\ & 84.5 \end{aligned}$ | $\begin{gathered} 8.5 \\ 84.9 \end{gathered}$ | $\begin{gathered} 8.6 \\ 83.4 \\ \hline \end{gathered}$ | $\begin{gathered} 8.4 \\ 87.8 \end{gathered}$ | $\begin{gathered} 6.2 \\ 85.4 \end{gathered}$ |
| Sample size | 153,303 | 15,797 | 3,008 | 1,551 | 858 | 693 | 455 | 238 | 482 |
| Pilot C : Wolverhampton (secondary school pupils) |  |  |  |  |  |  |  |  |  |
| Pilot C <br> \% eligible for FSM <br> \% take-up amongst FSM | $\begin{aligned} & 22.5 \\ & 76.6 \end{aligned}$ | $\begin{aligned} & 22.2 \\ & 76.5 \end{aligned}$ | $\begin{aligned} & 21.9 \\ & 76.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & 35.5 \\ & 74.1 \end{aligned}$ | $\begin{aligned} & 46.0 \\ & 75.6 \end{aligned}$ | $\begin{aligned} & 12.8 \\ & 70.9 \end{aligned}$ | $\begin{aligned} & 11.3 \\ & 71.4 \end{aligned}$ | $\begin{array}{r} 15.5 \\ 70.2 \\ \hline \end{array}$ | $\begin{aligned} & 14.5 \\ & 69.7 \end{aligned}$ |


| Sample size | 7,961 | 7,858 | 7,596 | 1,652 | 1,130 | 522 | 328 | 194 | 255 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Comparison C \% eligible for FSM <br> \% take-up amongst FSM | 15.7 75.1 | 18.3 74.7 | 23.1 75.6 | 43.1 | $\begin{aligned} & 54.5 \\ & 78.7 \end{aligned}$ | $\begin{aligned} & 15.9 \\ & 73.5 \end{aligned}$ | $\begin{gathered} 9.9 \\ 77.4 \end{gathered}$ | $\begin{aligned} & 23.9 \\ & 68 ? \end{aligned}$ | 16.9 71.6 |
| \% take-up amongst FSM | 75.1 | 74.7 | 75.6 | 77.2 | $78.7$ | $73.5$ | $77.4$ | $68.3$ | 71.6 |
| Sample size | 97,389 | 48,596 | 12,229 | 1,671 | 1,180 | 491 | 282 | 209 | 255 |
| Notes: comparisons refer to pupils in correct year groups only, i.e. for pilots A and B, this includes pupils in Reception, Year 1, Year 2, Year 3 and Year in Year 7, Year 8 and Year 9. Source: FSM eligibility taken from the Summer 2009 School Census; take-up of FSM taken from the Spring 2009 Schoo meal take-up collected as part of the evaluation. |  |  |  |  |  |  |  |  |  |

Table B1: Foundation Stage Profile results

|  | (1) All pupils in LA | (2) <br> All pupils in schools on survey long-list | (3) <br> All pupils on survey long-list | (4) <br> All pupils on survey long-list whose meal take-up is known | (5) <br> All pupils on survey long-list who take-up school meals | (6) <br> All pupils on survey long-list who do not takeup school meals | (6a) <br> All pupils on survey long-list whose take-up information was obtained through their school and who do not takeup school meals | (6b) <br> All pupils on survey long-list whose take-up information was obtained on the doorstep and who do not takeup school meals | (7) <br> All pupils in longitudinal survey |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pilot A: Newham |  |  |  |  |  |  |  |  |  |
| Pilot A <br> Total average FSP score Sample size | $\begin{gathered} 80.8 \\ 4,074 \end{gathered}$ | $\begin{gathered} 80.6 \\ 3,411 \end{gathered}$ | $\begin{aligned} & 87.3 \\ & 378 \end{aligned}$ | $\begin{aligned} & 86.7 \\ & 319 \end{aligned}$ | $\begin{aligned} & 87.0 \\ & 213 \end{aligned}$ | $\begin{gathered} 86.2 \\ 106 \end{gathered}$ | $\begin{array}{r} 85.7 \\ 100 \end{array}$ | $\begin{gathered} 94.5 \\ 6 \end{gathered}$ | $\begin{gathered} 87.4 \\ 57 \end{gathered}$ |
| Comparison A <br> Total average FSP score <br> Sample size | $\begin{gathered} 85.2 \\ 18,289 \end{gathered}$ | $\begin{gathered} 84.3 \\ 8,469 \end{gathered}$ | $\begin{gathered} 89.1 \\ 1,022 \end{gathered}$ | $\begin{aligned} & 92.3 \\ & 295 \end{aligned}$ | $\begin{aligned} & 92.1 \\ & 180 \end{aligned}$ | $\begin{aligned} & 92.6 \\ & 115 \end{aligned}$ | $\begin{gathered} 91.1 \\ 79 \end{gathered}$ | $\begin{gathered} 95.9 \\ 36 \end{gathered}$ | $\begin{gathered} 91.8 \\ 81 \end{gathered}$ |
| Pilot B: Durham |  |  |  |  |  |  |  |  |  |
| Pilot B <br> Total average FSP score Sample size | $\begin{gathered} 83.4 \\ 5,243 \end{gathered}$ | $\begin{gathered} 85.0 \\ 1,387 \end{gathered}$ | $\begin{array}{r} 87.5 \\ 419 \end{array}$ | $\begin{aligned} & 88.0 \\ & 389 \end{aligned}$ | $\begin{aligned} & 87.0 \\ & 246 \end{aligned}$ | $\begin{aligned} & 89.7 \\ & 143 \end{aligned}$ | $\begin{gathered} 89.6 \\ 142 \end{gathered}$ | $\begin{gathered} 108.0 \\ 1 \end{gathered}$ | $\begin{gathered} 93.1 \\ 79 \end{gathered}$ |
| Comparison B <br> Total average FSP score Sample size | $\begin{gathered} 86 \\ 31,190 \end{gathered}$ | $\begin{gathered} 83.7 \\ 3,107 \end{gathered}$ | $\begin{aligned} & 83.5 \\ & 578 \end{aligned}$ | $\begin{aligned} & 85.6 \\ & 290 \end{aligned}$ | $\begin{aligned} & 85.1 \\ & 137 \end{aligned}$ | $\begin{aligned} & 85.9 \\ & 153 \end{aligned}$ | $\begin{gathered} 86.9 \\ 100 \end{gathered}$ | $\begin{gathered} 84.1 \\ 53 \end{gathered}$ | $\begin{array}{r} 85.1 \\ 107 \end{array}$ |

Table B2: Key Stage 1 results

|  | (1) <br> All pupils in LA | (2) <br> All pupils in schools on survey long-list | (3) <br> All pupils on survey long-list | (4) <br> All pupils on survey long-list whose meal take-up is known | (5) <br> All pupils on survey long-list who take-up school meals | (6) <br> All pupils on survey long-list who do not takeup school meals | (6a) <br> All pupils on survey long-list whose take-up information was obtained through their school and who do not takeup school meals | (6b) <br> All pupils on survey long-list whose take-up information was obtained on the doorstep and who do not takeup school meals | (7) All pupils in longitudinal survey |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pilot A: Newham |  |  |  |  |  |  |  |  |  |
| Pilot A |  |  |  |  |  |  |  |  |  |
| Total KS1 points | 14.6 | 14.6 | 15.0 | 15.0 | 14.9 | 15.0 | 15.0 | 15.0 | 15.0 |
| \% reaching expected level in reading | 80.5 | 80.4 | 84.8 | 84.0 | 83.8 | 84.5 | 85.8 | 78.3 | 84.9 |
| \% reaching expected level in writing | 76.3 | 76.2 | 81.5 | 80.9 | 82.2 | 77.5 | 80.2 | 65.2 | 76.7 |
| \% reaching expected level in maths | 85.9 | 86.2 | 88.0 | 88.7 | 88.9 | 88.4 | 87.7 | 91.3 | 86.3 |
| \% reaching expected level in science | 85.2 | 85.1 | 88.1 | 87.2 | 88.3 | 84.5 | 82.1 | 95.7 | 84.9 |
| Sample size | 3,831 | 3,195 | 866 | 445 | 315 | 130 | 107 | 23 | 73 |
|  |  |  |  |  |  |  |  |  |  |
| Total KS1 points | 14.9 | 14.6 | 14.6 | 14.6 | 14.3 | 15.0 | 15.0 | 14.9 | 14.9 |
| \% reaching expected level in reading | 81.7 | 80.0 | 81.1 | 82.3 | 77.3 | 88.9 | 92.3 | 86.7 | 87.3 |
| \% reaching expected level in writing | 78.0 | 76.0 | 75.1 | 74.3 | 68.2 | 82.2 | 78.8 | 84.3 | 82.7 |
| \% reaching expected level in maths | 87.2 | 86.2 | 87.1 | 86.8 | 84.1 | 90.4 | 92.3 | 89.2 | 89.1 |
| \% reaching expected level in science | 85.9 | 84.4 | 85.2 | 83.6 | 80.7 | 87.4 | 88.5 | 86.7 | 85.5 |
| Sample size | 16,981 | 7,890 | 1,923 | 312 | 177 | 135 | 52 | 83 | 110 |

Table B2 continued: Key Stage 1 results

|  | (1) <br> All pupils in LA | (2) <br> All pupils in schools on survey long-list | (3) <br> All pupils on survey long-list | (4) <br> All pupils on survey long-list whose meal take-up is known | (5) <br> All pupils on survey long-list who take-up school meals | (6) <br> All pupils on survey long-list who do not takeup school meals | (6a) <br> All pupils on survey long-list whose take-up information was obtained through their school and who do not takeup school meals | (6b) <br> All pupils on survey long-list whose take-up information was obtained on the doorstep and who do not takeup school meals | (7) <br> All pupils in Iongitudinal survey |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pilot B: Durham |  |  |  |  |  |  |  |  |  |
| Pilot B |  |  |  |  |  |  |  |  |  |
| Total KS1 points | 15.0 | 14.9 | 14.7 | 14.8 | 14.3 | 15.3 | 15.2 | 16.0 | 15.5 |
| \% reaching expected level in reading | 83.1 | 81.8 | 81.1 | 81.5 | 75.8 | 87.4 | 86.8 | 100.0 | 90.2 |
| \% reaching expected level in writing | 79.4 | 79.8 | 79.0 | 79.5 | 73.6 | 85.6 | 85.0 | 100.0 | 89.3 |
| \% reaching expected level in maths | 88.7 | 88.7 | 88.7 | 88.6 | 86 | 91.4 | 91.0 | 100.0 | 92.0 |
| \% reaching expected level in science | 86.5 | 86.2 | 86.0 | 86.4 | 83.1 | 89.7 | 89.2 | 100.0 | 92.9 |
| Sample size | 4,904 | 1,334 | 372 | 352 | 178 | 174 | 167 | 7 | 112 |
| Comparison B |  |  |  |  |  |  |  |  |  |
| Total KS1 points | 15.3 | 14.6 | 14.5 | 14.9 | 14.7 | 15 | 15.6 | 14.1 | 15.1 |
| \% reaching expected level in reading | 84.2 | 80.1 | 77.9 | 79.2 | 76.1 | 82.6 | 87.8 | 74.1 | 83.0 |
| \% reaching expected level in writing | 80.2 | 75.0 | 75.4 | 76.9 | 74.8 | 79.2 | 83.3 | 72.2 | 80.4 |
| \% reaching expected level in maths | 89.6 | 87.1 | 86.8 | 88.6 | 88.3 | 88.9 | 92.2 | 83.3 | 88.4 |
| \% reaching expected level in science | 90.0 | 85.6 | 85.4 | 88.6 | 87.7 | 89.6 | 90.0 | 88.9 | 90.2 |
| Sample size | 29,853 | 3,005 | 571 | 308 | 164 | 144 | 90 | 54 | 112 |

Notes: comparisons refer to pupils sitting Key Stage 1 in Summer 2009 (i.e. those in Year 2) only. Source: Key Stage 1 results from the National Pupil Database, plus information on

|  | (1) All pupils in LA | (2) <br> All pupils in schools on survey long-list | (3) <br> All pupils on survey long-list | (4) <br> All pupils on survey long-list whose meal take-up is known | (5) <br> All pupils on survey long-list who take-up school meals | (6) <br> All pupils on survey long-list who do not takeup school meals | (6a) <br> All pupils on survey long-list whose take-up information was obtained through their school and who do not take-up school meals | (6b) <br> All pupils on survey long-list whose take-up information was obtained on the doorstep and who do not takeup school meals | (7) <br> All pupils in longitudinal survey |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pilot A: Newham (primary school pupils) |  |  |  |  |  |  |  |  |  |
| Pilot A <br> \% time absent from school Persistent absentee | $\begin{aligned} & 6.4 \\ & 2.6 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.4 \\ & 2.4 \end{aligned}$ | $\begin{aligned} & 6.2 \\ & 2.4 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.2 \\ & 2.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.1 \\ & 2.7 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.4 \\ & 2.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.1 \\ & 1.4 \\ & \hline \end{aligned}$ | $\begin{aligned} & 8.6 \\ & 5.8 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.4 \\ & 2.2 \\ & \hline \end{aligned}$ |
| Sample size | 19,514 | 15,968 | 3,814 | 2,032 | 1,415 | 617 | 542 | 75 | 370 |
| Comparison A \% time absent from school Persistent absentee | $\begin{aligned} & 6.2 \\ & 2.9 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.4 \\ & 3.1 \end{aligned}$ | $\begin{aligned} & 6.3 \\ & 2.7 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.3 \\ & 2.4 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.2 \\ & 3.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.4 \\ & 1.7 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.2 \\ & 1.4 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.5 \\ & 1.8 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.5 \\ & 2.1 \\ & \hline \end{aligned}$ |
| Sample size | 86,290 | 39,448 | 8,709 | 1,575 | 915 | 660 | 288 | 372 | 509 |
| Pilot B: Durham (primary school pupils) |  |  |  |  |  |  |  |  |  |
| Pilot B <br> \% time absent from school Persistent absentee | $\begin{aligned} & 5.7 \\ & 2.2 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.0 \\ & 2.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & 5.9 \\ & 2.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & 5.8 \\ & 2.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.0 \\ & 3.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & 5.6 \\ & 1.9 \end{aligned}$ | $\begin{aligned} & 5.6 \\ & 1.7 \\ & \hline \end{aligned}$ | $\begin{gathered} 7.7 \\ 12.5 \\ \hline \end{gathered}$ | $\begin{aligned} & 5.4 \\ & 1.7 \end{aligned}$ |
| Sample size | 25,274 | 6,522 | 1,939 | 1,843 | 1,023 | 820 | 803 | 17 | 500 |
| Comparison B \% time absent from school Persistent absentee | $\begin{aligned} & 5.4 \\ & 2.4 \end{aligned}$ | $\begin{aligned} & 5.9 \\ & 3.0 \end{aligned}$ | $\begin{aligned} & 5.9 \\ & 2.7 \end{aligned}$ | $\begin{aligned} & 5.7 \\ & 2.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.0 \\ & 2.8 \end{aligned}$ | $\begin{aligned} & 5.3 \\ & 2.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & 5.1 \\ & 2.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & 5.6 \\ & 2.2 \\ & \hline \end{aligned}$ | $\begin{aligned} & 5.2 \\ & 1.9 \end{aligned}$ |
| Sample size | 153,303 | 15,797 | 3,008 | 1,551 | 858 | 693 | 455 | 238 | 482 |
| Pilot C : Wolverhampton (secondary school pupils) |  |  |  |  |  |  |  |  |  |
| Pilot C <br> \% time absent from school Persistent absentee | $\begin{aligned} & 7.2 \\ & 4.7 \\ & \hline \end{aligned}$ | 7.2 4.7 | $\begin{aligned} & 7.1 \\ & 4.7 \\ & \hline \end{aligned}$ | $\begin{aligned} & 7.7 \\ & 4.8 \\ & \hline \end{aligned}$ | $\begin{aligned} & 8.1 \\ & 5.7 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.8 \\ & 2.9 \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.5 \\ & 3.4 \\ & \hline \end{aligned}$ | $\begin{array}{r} 7.3 \\ 2.1 \\ \hline \end{array}$ | $\begin{aligned} & 6.8 \\ & 2.7 \\ & \hline \end{aligned}$ |


| Sample size | 7,961 | 7,858 | 7,596 | 1,652 | 1,130 | 522 | 328 | 194 | 255 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Comparison C |  |  |  |  |  |  |  |  |  |
| \% time absent from school | 6.5 | 6.8 | 6.9 | 7.6 | 7.8 | 7.3 | 6.8 | 7.9 | 6.8 |
| Persistent absentee | 4.0 | 4.7 | 4.6 | 6.0 | 6.4 | 5.1 | 4.3 | 6.2 | 3.5 |
| Sample size | 97,389 | 48,596 | 12,229 | 1,671 | 1,180 | 491 | 282 | 209 | 255 |


[^0]:    ${ }^{1}$ Averages are based on overall take-up in each control local authority
    ${ }^{2}$ This definition was chosen as one that most schools would be able to use in classifying their pupils.

[^1]:    ${ }^{3}$ Outcomes for more groups of interest can be found in Appendix C.

[^2]:    ${ }^{4}$ Source: http://www.dcsf.gov.uk/rsgateway/DB/SFR/s000843/index.shtml
    ${ }^{5}$ Source: http://www.dcsf.gov.uk/rsgateway/DB/SFR/s000843/index.shtml.

[^3]:    ${ }^{6}$ Source: http://www.dcsf.gov.uk/pns/DisplayPN.cgi?pn_id=2009_0157.

[^4]:    ${ }^{7}$ Parents in Wolverhampton and Control C areas were screened on the doorstep for income and benefit receipt and only interviewed if found to be likely to be eligible for FSM under the extended eligibility arrangements. Estimates reported here are based on information provided in the interview which included more detailed information on income.

[^5]:    ${ }^{8}$ Schools were asked 'Are pupils encouraged to choose healthy options at lunchtime?' No definition of 'healthy' was given to schools. However, some context was provided by the preceding question which covered strategies that had 'been used at lunchtime to encourage pupils to select more fruit, vegetables or salad?'.

[^6]:    ${ }^{9}$ It is possible that the interview was conducted some days after the doorstep checks and that lunchtime arrangements were different in the survey reference period.

[^7]:    ${ }^{10}$ If the parent was unable to use the computer or did not want to, these questions were administered by the interviewer.

[^8]:    ${ }^{11}$ Overweight and obese classifications are calculated using BMI percentiles (taken from HSE) on 6 month age groups. Calculations were carried out in the same way as the HSE calculation.

[^9]:    ${ }^{12}$ Household income in the survey was defined as the income of the parent respondent and their partner (if applicable)

[^10]:    ${ }^{13}$ Outcomes for more groups of interest can be found in Appendix D.

[^11]:    ${ }^{14}$ This will be achieved by calculating the impact of the FSM pilots on primary school pupils in Newham and Durham whose family income is low enough that they would still have been eligible for free meals under the extended eligibility criteria in operation in Wolverhampton.

[^12]:    ${ }^{15}$ Outcomes for more groups of interest can be found in Appendix E.

[^13]:    ${ }^{16}$ Because we were selecting our samples alongside information being provided to us by the SFT, we eliminated some LAs and schools here, and some once we had chosen our top five authorities (see below for more details).
    ${ }^{17}$ Results are available on request.
    ${ }^{18}$ We chose six schools rather than four to give us a couple of spare schools in each LA should the response rate be lower than expected.

[^14]:    ${ }^{19}$ This was necessary because Newham adopts an admissions policy under which children born between $1^{\text {st }}$ March and $31^{\text {st }}$ August do not start school until January of the year in which they turn five. As we were only able to access the Autumn 2009 census (which is taken in September), children born between March and August were not included in our pilot sample. Due to well-documented differences by month of birth in terms of test scores and other outcomes, we decided to focus the comparison sample on children born between September and March (the oldest in their academic year) as well.
    ${ }^{20}$ We used the Longitudinal Study of Young People in England to devise our measure of socio-economic status. We did this by checking how different combinations of variables (including FSM eligibility, IMD score, IDACI score and various measures of household type from ACORN data) performed against an actual measure of household income. We found that combining FSM, IDACI and ACORN type provided the most accurate targeting of individuals with income below $£ 16,040$. Results are available on request.

[^15]:    ${ }^{21}$ For reception pupils, plus those in Durham and Wolverhampton and their associated comparison areas, we are only able to use a White British indicator. For non-reception pupils in Newham and its associated comparison areas, we use a more detailed measure of ethnic group (with 12 categories).
    ${ }^{22}$ For reception pupils, we are only able to use school size, school type (community vs. non-community), proportion of pupils eligible for FSM, proportion of pupils eligible for FSM who take-up school meals, average point score, contextualised value-added and size of school year.

