



Department
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Five to Twelve: Year 1 Report

Research report

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Contents

List of figures	5
List of tables	8
Acknowledgements	14
Executive Summary	15
1. Introduction	22
1.1 Five to Twelve Study	22
1.2 The year 1 report	25
2. The cohort child	32
2.1 Introduction	32
2.2 Characteristics of the cohort children	33
2.3 Child's health, physical development, SEN and wellbeing	35
2.4 Summary	77
3. Co-resident parents and main household	79
3.1 Introduction	80
3.2 Family composition in children's main household	81
3.3 Co-resident mothers	82
3.4 Co-resident fathers	85
3.5 Main household demographics and socio-economic circumstances	87
3.6 Co-resident parent/carer health and wellbeing	93
3.7 Co-resident parent parenting styles	104
3.8 Summary	114
4. Child and Parents living separately	116
4.1 Introduction	116
4.2 Prevalence of own household parents	118
4.3 Characteristics of own household parents	119
4.4 OHP Households	120
4.5 OHP Income and income sources	121
4.6 OHP wellbeing	122
4.7 OHP contact and contributions	123

4.8	OHP parenting style	131
4.9	OHP relationship and activities with child and school engagement	131
4.10	Summary	134
5.	Home environment in the child's main household	136
5.1	Introduction	137
5.2	Home learning environment	138
5.3	Co-resident parental activities with the cohort child	151
5.4	Confusion, hubbub and order scale (CHAOS)	155
5.5	Digital environment	157
5.6	Summary	162
6.	The cohort child at school	164
6.1	Introduction	165
6.2	Attainment	167
6.3	Behaviour at school	175
6.4	Bullying behaviour	177
6.5	Child-teacher closeness	183
6.6	Tutoring at school	186
6.7	Support at school	188
6.8	Summary	194
7.	Child Cognitive Assessments	196
7.1	Introduction	196
7.2	Naming Vocabulary	198
7.3	Picture Similarities	202
7.4	Recall of Digits Backwards	206
7.5	Summary	209
8.	Discussion and conclusions	210
8.1	Establishing a study of primary years	210
8.2	Baseline findings	210
8.3	Next steps for Five to Twelve	212
9.	Glossary	214
10.	References	217

11.	Appendices	232
11.1	Appendix A: Technical Summary – Survey Design	232
11.2	Appendix B: SEN Type definitions (from NPD)	240
11.3	Appendix C: Child ethnicity	241
11.4	Appendix D: Co-resident maternal and paternal qualifications	242
11.5	Appendix E: Comparison of core questions asked in relation to OHP	244
11.6	Appendix F: Missing Data and Imputation in Recall of Digits Backwards	246
11.7	Appendix G: Child SDQ measures and break down by SEN type	249
11.8	Appendix H: Modified pupil behaviour questionnaire scale and bands	254
11.9	Appendix I: Pupil-teacher relationship scale and bands	255
11.10	Appendix J: Multivariate analysis	256
11.11	Appendix K: Associations across questionnaire measures by socio-demographic characteristics.	259

List of figures

Figure 1: Prevalence of cohort child's serious or longstanding health conditions, by demographic characteristics	38
Figure 2: Proportion of cohort children with SEN with and without an EHCP, by primary SEN category (according to NPD)	45
Figure 3: Prevalence of SEN as recorded on NPD, by demographic characteristics	46
Figure 4: Frequency of exercise, by demographic characteristics	56
Figure 5: Regular bedtime, by demographic characteristics	57
Figure 6: Duration of sleep, by demographic characteristics	58
Figure 7: Ease or difficulty for child to wake up, by demographic characteristics	59
Figure 8: Level of development of gross motor skills, by demographic characteristics	61
Figure 9: Level of development of fine motor skills, by demographic characteristics	62
Figure 10: Banded total difficulties scores, by demographic characteristics	65
Figure 11: Banded emotional difficulties scores, by demographic characteristics	66
Figure 12: Banded conduct difficulties scores, by demographic characteristics	67
Figure 13: Banded hyperactivity scores, by demographic characteristics	68
Figure 14: Banded peer relationship problems scores, by demographic characteristics	69
Figure 15: Banded prosocial behaviour scores, by demographic characteristics	70
Figure 16: Cognitive self-regulation quartiles, by demographic characteristics	72
Figure 17: Emotional self-regulation quartiles, by demographic characteristics	73
Figure 18: Behavioural self-regulation quartiles, by demographic characteristics	74
Figure 19: Composite self-regulation quartiles, by demographic characteristics	76
Figure 20: Co-resident maternal physical health, by demographic characteristics	94
Figure 21: Co-resident paternal physical health, by demographic characteristics	96
Figure 22: Proportion of co-resident mothers reporting anxiety, by demographic characteristics	98

Figure 23: Proportion of co-resident mothers reporting depression, by demographic characteristics	99
Figure 24: Proportion of co-resident fathers reporting anxiety, by demographic characteristics	100
Figure 25: Proportion of co-resident fathers reporting depression, by demographic characteristics	101
Figure 26: Co-resident maternal authoritative scores, by demographic characteristics	107
Figure 27: Co-resident maternal authoritarian scores, by demographic characteristics	108
Figure 28: Co-resident maternal permissive scores, by demographic characteristics	109
Figure 29: Co-resident paternal authoritative scores, by demographic characteristics	110
Figure 30: Co-resident paternal authoritarian scores, by demographic characteristics	111
Figure 31: Co-resident paternal permissive scores, by demographic characteristics	112
Figure 32: Frequency of OHP term time contact with child according to main informant, by demographic characteristics	126
Figure 33: Overnight term time stays with OHP according to main informant, by demographic characteristics	128
Figure 34: Home learning environment index, by demographic characteristics	140
Figure 35: Children's books in the home, by demographic characteristics	148
Figure 36: CHAOS score, by demographic characteristics	156
Figure 37: Number of hours of screen time, by demographic characteristics	160
Figure 38: Teacher attainment predictions in maths, by demographic characteristics	169
Figure 39: Teacher attainment predictions in reading, by demographic characteristics	170
Figure 40: Use of academic groups in maths, by demographic characteristics	173
Figure 41: Use of academic groups in English, by demographic characteristics	174
Figure 42: Children's behaviour at school, by demographic characteristics	180
Figure 43: Experience of bullying behaviour, by demographic characteristics	181
Figure 44: Displaying bullying behaviours, by demographic characteristics	182

Figure 45: Child-teacher closeness, by demographic characteristics	185
Figure 46: Tutoring at school, by demographic characteristics	187
Figure 47: Received small group learning support at school, by demographic characteristics	190
Figure 48: Received one-to-one learning support at school, by demographic characteristics	191
Figure 49: Received speech and language support at school, by demographic characteristics	192
Figure 50: Received wellbeing support at school, by demographic characteristics	193

List of tables

Table 1: Distribution of cohort birth weights compared to ONS records	36
Table 2: Prevalence of cohort child serious or longstanding health conditions	37
Table 3: Longstanding health conditions of cohort children with a condition, by FSM eligibility and SEN status (NPD)	40
Table 4: Cohort child SEN type, according to main informant.....	48
Table 5: Types of SEN identified by main informant, by NPD recorded SEN support	52
Table 6: Types of SEN type reported by main informant, by NPD SEN type	53
Table 7: Main household structure, by FSM eligibility	81
Table 8: Co-resident mothers' academic qualifications, by household structure.....	83
Table 9: Co-resident mothers' working status, by household structure.....	84
Table 10: Co-resident fathers' academic qualifications.....	86
Table 11: Co-resident fathers' working status.....	87
Table 12: Housing tenure, by demographic characteristics	88
Table 13: Main household working status.....	89
Table 14: Income in main household	89
Table 15: Benefits received by children's main household	91
Table 16: Proportion of households struggling to pay bills, skipping meals, unable to afford school items and unable to heat house, by FSM eligibility and SEN status.....	92
Table 17: Key OHP Statistics (according to main informant)	119
Table 18: OHP household composition	120
Table 19: Own household parents income sources	121
Table 20: Talking about things that matter, eating an evening meal and social activities (OHP data), by FSM eligibility.....	133
Table 21: Engaged in home learning activities 5 to 7 days a week, by FSM eligibility ...	141
Table 22: Engaged in home learning activities 5 to 7 days a week, by SEN status	142

Table 23: Engaged in home learning activities 5 to 7 days a week, by child gender	144
Table 24: Engaged in home learning activities 5 to 7 days a week, by co-resident parent household income.....	145
Table 25: Engaged in home learning activities 5 to 7 days a week, by co-resident parental education	147
Table 26: Devices used, by demographic characteristics	159
Table 27: Frequency of individual behaviours.....	176
Table 28: Responses to the individual statements from the child-teacher relationship scale	184
Table 29: Proportion of children receiving support at school	188
Table 30: Naming Vocabulary T-score means.....	200
Table 31: Picture Similarities T-score means.....	204
Table 32: Recall of Digits Backwards T-score means.....	207
Table 32 continued: Recall of Digits Backwards T-score means	208
Table 33: Questionnaire content.....	236
Table 34: Response by questionnaire component.....	237
Table 35: SEN type definitions, according to NPD.....	240
Table 36: Child cohort's ethnicity, expanded categories	241
Table 37: Qualification and equivalised qualification level	242
Table 37 continued: Qualification and equivalised qualification level.....	243
Table 38: Questionnaire content about contact with child for main informant and OHP	244
Table 38 continued: Questionnaire content about contact with child for main informant and OHP	245
Table 39: Socio-emotional Difficulties Questionnaire (SDQ) items	249
Table 39 continued: Socio-emotional Difficulties Questionnaire (SDQ) items.....	250
Table 40: Socio-emotional Difficulties Questionnaire (SDQ) items, by FSM eligibility ...	250

Table 40 continued: Socio-emotional Difficulties Questionnaire (SDQ) items, by FSM eligibility	251
Table 41: Socio-emotional Difficulties Questionnaire (SDQ) items, by SEN status	252
Table 41 continued: Socio-emotional Difficulties Questionnaire (SDQ) items, by SEN status	253
Table 42: Proportion of children in each modified pupil behaviour questionnaire band	254
Table 43: Proportion of children in each Student-Teacher Closeness Scale band	255
Table 44: Multivariate model: SEN	256
Table 45: Multivariate model: Longstanding health conditions.....	257
Table 46: Multivariate model: SDQ	257
Table 47: Multivariate model: Naming vocabulary	257
Table 48: Multivariate model: Picture Similarities	258
Table 49: Multivariate model: Recall of digits backward	258
Table 50: Associations across questionnaire measures by socio-demographic characteristics	259
Table 50 continued: Associations across questionnaire measures by socio-demographic characteristics.....	260
Table 50 continued: Associations across questionnaire measures by socio-demographic characteristics	261

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Executive Summary

Summary of Five to Twelve key findings at year 1:

- this report provides baseline findings for Five to Twelve, a longitudinal study of 8,632 year 1 children in state-funded education in England in 2023/2024.
- the results of the first survey show a consistent and often strong association between the range of factors important to later educational attainment and socio-demographic characteristics. These include Free School Meal (FSM) eligibility, child special educational needs (SEN) status, main household income, main household parental education level, and gender (less consistent).

Child characteristics

- one-half of year 1 children were boys (51%) and one-half girls (49%).
- children were predominantly aged five or six. Two-fifths (41%) of children were 'summer born' (born 1 April – 31 August).
- 62% of children were White British, 15% Asian/Asian British, 8% White Irish/Gypsy or Irish Traveller/Roma/other, 6% Mixed/Multiple ethnic groups, 6% Black/Black British, 1% Arab, and 1% other.
- 18% of children were eligible for FSM, slightly lower than the 22% figure in DfE statistics for 2023/2024. However, this figure is in line with the percentage for reception year children, which is the point at which the administrative data (including FSM) was collected.

Child health, SEN and health behaviours

- 36% of children had one or more severe or longstanding health conditions.
- 12% of children had SEN as recorded on DfE's National Pupil Database (NPD), compared to 16% of children who had SEN as reported by main informants.
- most (94%) main informants where the cohort child had SEN reported discussing their child's difficulties with school. Of those, 65% reported that their child received support at school.
- 54% of children in the study always had a regular bedtime and 92% of children slept for 10 or more hours per night. 37% of children exercised every day.
- 78% of children had typical scores on the total difficulties scale of the Strengths and Difficulties Questionnaire, with 22% reported as experiencing difficulties (8% 'borderline' and 14% 'atypical'). Disparities in these scores by socio-economic and demographic characteristics were evident; for example, for FSM-eligible children, these numbers were 58% typical, 11% borderline and 30% atypical.

- measures of children's exercise levels, sleep behaviours, socio-emotional difficulties and self-regulation were associated with FSM eligibility, main household income, main household parental education level and child SEN.

Co-resident parents and main household

- 78% of children lived with two parents (including with a parent and their co-resident partner) and 21% lived with a lone parent. 21% of children had a parent that did not live with them; these were mostly fathers (92%).
- the majority of children (88%) lived in households where at least one parent was in paid work. 92% of co-resident fathers, and 69% of co-resident mothers, were in paid work.
- almost one-half of co-resident mothers (48%) and fathers (45%) had a degree or above.
- parents were generally in good health: 83% of both co-resident mothers and fathers reported good or very good health.
- measures of education, employment and parental health were associated with socio-economic and demographic characteristics.

Main household home learning environment

- 83% of main households engaged frequently in home learning activities.
- 59% of main informants reported that someone in their household read with the cohort child five or more days per week.
- 91% of co-resident mothers and 80% of co-resident fathers had attended a parents' evening in the previous six months.
- 42% of children had one hour of screen time per school day, 36% had two hours, 12% three hours, 5% zero hours, 3% four hours and 2% five hours.
- home learning environment, hours of screen time, activities with child and parenting styles were all associated with socio-demographics including FSM, SEN, household income and parental education.
- 78% of children were predicted by their teacher to meet at least the expected standard in maths and 77% in reading in their Key Stage 2 assessments.
- children eligible for FSM, with SEN, with lower household incomes and with lower levels of parental education were less likely than their counterparts to be predicted by their teachers to achieve at least the expected standard in maths at the end of primary school, with the same trend for reading. These children were also less likely to be in higher attainment groups.
- cognitive test scores of children eligible for FSM were lower than those of their counterparts. A consistent positive relationship between parental education and scores on the three cognitive assessments was also evident.

Five to Twelve is a new longitudinal study of children in primary education. It is the second of three cohort studies commissioned by the Department for Education as part of the Education and Outcomes Pathways Studies (EOPS). Together, these longitudinal studies are following children's lives and development from infancy (9 months) to ages 16 to 17 (year 12).

Five to Twelve focuses on a cohort of children who were in year 1 (aged 5 and 6) at state primary schools in the 2023/24 academic year. It aims to, firstly, track and measure the wellbeing and educational outcomes of children across England. Secondly, it seeks to examine factors associated with, and explain, inequities in educational and wellbeing outcomes. The study explores a wide range of factors, including those known to predict children's development and attainment.¹

Child development is always affected by a range of environmental factors. The modern context for the Five to Twelve cohort differs substantially from previous generations. For example, Five to Twelve children experienced the coronavirus pandemic (COVID-19). They were aged between 1 year 7 months and 2 years 5 months when the first COVID-19 lockdowns were implemented. In addition, Five to Twelve children are growing up during an ongoing cost of living crisis and a period of rapid technological change. These factors form a unique set of conditions for the Five to Twelve cohort, which will shape their early experiences.

The Five to Twelve sample was randomly selected from the National Pupil Database (NPD), with a boost of those eligible for Free School Meals (FSM). Survey interviews were conducted with 8,632 families in their homes between November 2023 and August 2024, representing a 47% response rate.

This primarily descriptive report presents baseline findings from the first year of data collection for Five to Twelve. It describes the characteristics, behaviours, home environment and school experiences of year 1 children. Secondly, it looks at how different groups compare on the wide range of measures collected in the survey. This is examined in relation to five key socio-demographic characteristics: eligibility for FSM, child special educational need (SEN) status, child gender, main household income and main household parental education level.² As a baseline report that provides details of year 1 findings, longitudinal analyses are not possible. Therefore, the aim of this report is to lay out the foundational measures and their interrelations. This report also showcases

¹ For details of the factors that influence children's attainment and outcomes, as well as evidence gaps, please refer to the literature review conducted for this study: Harland and others, 2024.

² Note that both FSM eligibility and household income are used as independent variables, since FSM eligibility is an imperfect measure of deprivation and does not capture all families experiencing poverty (Ilie and others, 2015; Kounali and others, 2018; Taylor, 2017; Campbell and Cooper, 2024).

the range of data that will be available to researchers for conducting in-depth analyses on topics of interest.³

The report can be read in full but has also been designed for readers to engage with chapters individually. Future reports will be narrower in scope and will explore key themes in greater depth. Of the measures discussed in this report, some will be tracked each year of data collection, while others have been collected once as predictors of future outcomes. Where possible, we compared findings in this report with those of previous studies. Often, however, this was not possible due to limited availability of comparable data. Findings presented here are statistically significant unless otherwise stated. All percentages have been rounded to the nearest whole number.

The results of the first survey show a consistent and often strong association between the wide range of factors relevant to later educational attainment and the socio-demographic variables used in the analysis. This draws attention to the challenges faced by certain groups, for example, those eligible for FSM, at the very beginning of primary school. The rest of this executive summary will present the findings in brief.

Child health, SEN, health behaviours and socio-emotional measures

Data collected on child health showed socio-economic and demographic disparities. Children eligible for FSM, children with SEN, children with a lower household income and children of co-resident parents with lower educational levels were more likely to have at least one longstanding health condition compared to their counterparts.

Important differences were identified in measurement of SEN, as recorded in DfE (NPD) data, compared to SEN as reported by main informant parents in the survey questionnaire. According to NPD data, 12% of children had SEN. Main informant parents indicated that 16% of children had SEN, with a further 3% of parents not sure whether their child had SEN. In total, 8% of children were classified as having SEN on both the NPD and parent measures, indicating some lack of correspondence. Some, but not all, of this discrepancy is explained by differences in the timing of recording the information (NPD administrative data was recorded in children's reception year).

One-half of children (54%) always had a regular bedtime and 37% of children exercised every day. Children with SEN were less likely to have a regular bedtime or to engage in exercise. A larger proportion of children with SEN and those eligible for FSM slept under 10 hours a night. Children with SEN and children eligible for FSM were more likely to be rated by teachers as having less well-developed motor skills.

³ Please note that access to NPD variables, including FSM eligibility and SEN as recorded on the NPD, will be restricted.

The study measured socio-emotional difficulties using the Strengths and Difficulties Questionnaire (SDQ; Goodman and Goodman, 2009). Scores on each of the five sub-scales derived from this questionnaire are categorised into three categories: 'Typical', 'Borderline' and 'Atypical'. Substantial variation was observed between children with different characteristics. For example, on the total difficulties measure, 44% of children with SEN had atypical scores, compared with 10% of children with no SEN. Thirty per cent of children eligible for FSM had atypical scores, compared with 10% of children who were not eligible. There was a linear association with main household income, with children in the lowest household income quintile being the most likely to have atypical scores (23%) and children in the highest household income quintile being the least likely (5%). A similar relationship was evident with co-resident parental education. Boys were more likely to have atypical scores (17%) than girls (10%).

Similarly, children eligible for FSM, children with SEN, children with a lower household income, children with lower co-resident parental education and boys were more likely to have difficulty with self-regulation. This was indicated by atypical scores on the Child Self-Regulation and Behaviour Questionnaire (CSBQ; Howard and Melhuish, 2016).

Main household characteristics

Over three-quarters (78%) of children lived with two parents, with one-fifth (21%) living in a lone parent household. The percentage of children living in a lone parent household was slightly higher than in the Millennium Cohort Study (MCS) age 5 sweep, where 17% of children lived with a lone mother.⁴ Children eligible for FSM were more likely to be in lone parent households (59% compared to 13% of those not eligible for FSM).

Most co-resident parents (in the child's main household) were birth parents (97%), with 1% being adoptive parents, 1% foster carers and 1% stepparents. Almost two-thirds of both co-resident mothers (58%) and co-resident fathers (61%) were aged 35 to 44. Most co-resident fathers were in paid work (92%), compared to 69% of co-resident mothers. A substantially larger proportion of co-resident mothers were looking after the home (23%) and unemployed (7%) than co-resident fathers (3% and 2% respectively).

Own household parents

One-fifth of children (21%) had a parent living separately to the child's main residence, also known as an Own Household Parent (OHP). The majority of OHPs were fathers (92%). Presence of an OHP was more likely when the main household was eligible for FSM. Two-thirds of children saw their OHP at least once per week, and 57% of children with an OHP stayed the night at least once during term time.

⁴ Note that the comparison is between children living with a lone parent in Five to Twelve, compared to children living with a 'lone natural mother' in MCS3.

Main household home learning environment

Children's home environment plays a key role in shaping children's outcomes. Measurement of children's home learning environment via the Home Learning Environment (HLE) index (Melhuish and others, 1999), showed associations with socio-economic and demographic variables. Overall, a larger proportion of main households experiencing disadvantage (including children eligible for FSM, with a lower main household income or lower levels of main household parental education) had a low home learning environment index score compared to main households not experiencing disadvantage. This finding suggests that these families tended to engage less frequently in home learning activities such as reading with their child or helping them to learn. This was also found to be the case for children with SEN. Importantly the research cannot yet distinguish between families where parents did not initiate these activities, and where parents did initiate but children could or would not engage in the activities.

In an average school day, children spent 1.74 hours on a screen. Greater hours of screen time were reported by parents in three groups of main households: households eligible for FSM, households with a child with SEN and households where the cohort child was a boy. Over one-quarter (27%) of children eligible for FSM used screens for three or more hours per day, compared to 15% of those not eligible, with similar proportions for children with SEN compared to with no SEN (28% compared to 16%). Types of activities undertaken using screens and types of devices used varied considerably between demographic characteristics.

School environment and attainment

Over three-quarters of the cohort were predicted (by their teachers) to achieve at least the expected standard in maths (78%) and in reading (77%) by the end of key stage 2 (KS2). However, clear disparities were apparent. Children eligible for FSM, with SEN, with low household income or with lower levels of co-resident parental education were less likely to be predicted to achieve the expected standard in maths, with the same pattern observed for reading. Both children eligible for FSM and children with SEN were reported by teachers to be bullied more and to display bullying behaviours more compared to those not eligible for FSM and children with no SEN. Scores on the Teacher-Child Closeness scale (Pianta and Nimetz, 1991) were higher for children not eligible for FSM and those with no SEN. Children with SEN and those eligible for FSM received more tutoring support of all types (e.g. small group learning, one-to-one, speech and language and wellbeing support) at school than those with no SEN and children not eligible for FSM.

Cognitive ability

Cognitive assessments also showed correlation with socio-economic and demographic variables. Three cognitive assessments from the British Ability Scales 3 (BAS 3; Elliott

and Smith, 2011) were administered to children at year 1, which examined children's verbal skills, non-verbal reasoning and working memory. Children's verbal skills were strongly associated with parental education and socioeconomic status. Children with SEN scored lower on average, with differences observed between SEN types. Non-verbal reasoning skills showed similar patterns of association with parental education and socioeconomic status, though less pronounced than verbal ability. The evaluation of working memory revealed large differences between children with and with no SEN and strong associations with parental education and socioeconomic status. Gender differences were apparent in verbal and non-verbal reasoning with girls scoring higher on average. When controlling for other factors, girls scored slightly lower on average on the assessment of working memory.

Learning about primary school pupils for years to come

Taken together, the baseline findings from year 1 provide a wealth of insights into the lives of children beginning their education. These findings highlight consistent links between socio-economic and demographic characteristics, including FSM eligibility, SEN status, household income and parental education, and the circumstances, behaviours, and experiences of children and their families at home and at school. It is important to acknowledge that there will be variation within these groups (for example, between the experiences of those with different types of SEN). This research provides a starting point for better understanding these inequalities.

Future years of research will build on the findings from this first year of data collection by examining how important topics develop over time and by responding to emerging areas of interest. This rich data will enable in-depth analysis of the drivers of educational inequalities as they emerge, and potentially consolidate, in the primary school years.

1. Introduction

1.1 Five to Twelve Study

1.1.1 Background

The Five to Twelve study is part of the Education and Outcomes Pathways Studies (EOPS) programme of longitudinal research funded by the Department for Education. This research programme focuses on three cohorts of children and young people at different stages of childhood: from infancy to pre-school (EOPS Early Years), primary school (EOPS Primary) and secondary school (EOPS Secondary). The Five to Twelve study is also known as EOPS Primary. It collects data about children's experiences, progress at school and wellbeing as this cohort goes through primary school. It also examines the factors at home, at school and in the wider environment that affect children's attitudes, behaviours and outcomes.

According to the government data on key stage 2 (KS2) assessments, which take place at the end of primary school, in 2024 61% of pupils met the expected standard in all of reading, writing and maths (combined). This was up from 60% in 2023 and 59% in 2022 but lower than before the COVID pandemic (2019), when 65% of pupils met the standard (Department for Education, 2025a). The disadvantage gap index, which summarises the attainment gap between disadvantaged pupils and all other pupils,⁵ was 3.13 in 2024, down from 3.21 in 2023 and 3.23 in 2022 but still higher than pre-pandemic (2.91 in 2019) (Department for Education, 2025d).

The COVID pandemic, and responses to it, had a detrimental effect on a range of outcomes for children and young people, including their cognitive and socio-emotional development, educational attainment and wellbeing (Blanden and others, 2021a; Renaissance Learning & Education Policy Institute, 2022; Tracey and others, 2022; Newlove-Delgado and others, 2023). Children with special educational needs and disabilities (SEN) and those from disadvantaged backgrounds experienced greater adverse effects than their less disadvantaged peers (Speight and others, 2021; Twist and others, 2022). This was accompanied by detrimental effects on their parents, particularly mothers, who experienced significant deterioration of their mental health (Blanden and others, 2021b; Zhou and others, 2020). Children in the Five to Twelve study were aged between 18 months and three years old during the closures of early years settings in

⁵ Disadvantaged pupils are defined as: those who were registered as eligible for free school meals at any point in the last six years, children looked after by a local authority, and children who have left local authority care through adoption, a special guardianship order, a residence order or a child arrangements order. The disadvantage gap index is calculated by ordering pupil scores in reading and maths assessments at end of key stage 2 and assessing the difference in the average position of disadvantaged pupils and others. The mean rank of pupils in the disadvantaged and other pupil groups are subtracted from one another and multiplied up by a factor of 20 to give a value between -10 and +10. Zero indicates an equal distribution of scores, and higher values indicate a greater gap in attainment, with disadvantaged pupils being ranked lower than pupils in other groups.

2020 and 2021. Many of them were deprived of opportunities to socialise with their peers and other adults and to access education and care from early years professionals. This provides important context for the Five to Twelve study as it tracks the children over time and seeks to understand factors affecting their progress and wellbeing.

A literature review undertaken as part of the Five to Twelve study (Harland and others, 2024) highlights a wide range of factors that affect educational outcomes in primary school. These include children's cognitive and non-cognitive capabilities, physical and mental health including special educational needs and disabilities, health behaviours, home environment (including socio-economic circumstances, parental attitudes and behaviours, adverse childhood experiences, and relationships between children and their parents/carers) and experiences at school.

There are also other factors affecting child outcomes, which were not in scope for the literature review, including influences of the area that children live in (the immediate neighbourhood with its levels of employment, deprivation, crime, air quality, noise pollution and green spaces, and the wider local authority and region; Shield and Dockrell, 2008; Flouri and others, 2020; Fernandes and others, 2023; Purdam and others, 2024). The key stage 2 test results in 2024 show that the percentage of pupils meeting the expected standard in reading, writing and maths (combined) varied substantially from region to region, with London being the highest performing region (69%), and other regions having from 58% to 62% of pupils meeting the expected standard (Department for Education, 2025i). Slightly older data on children's mental health shows substantial regional variation. The prevalence of any mental disorder among 5- to 19-year-olds was the lowest in London, at 9.0%, and as high as 14.7-15.6% in four other regions (East of England, South West, North West, Yorkshire and the Humber) (NHS Digital, 2018). Regional differences and area-based factors are beyond the scope of this report.

This report examines many of the factors affecting children's experiences and outcomes and shows their prevalence among the population included in the Five to Twelve study. As the study progresses, it will continue to add to the wealth of data about the influences on children's attitudes, behaviours and outcomes as they progress through primary school.

1.1.2 Aims and objectives

The core aim of Five to Twelve is to follow the same cohort of pupils over time to learn about their experiences during their primary school years and how these influence educational and wellbeing outcomes. Five to Twelve includes the perspectives of parents/caregivers, pupils and teachers which provides a well-rounded picture of pupils' experiences at home and at school. The study will produce high quality data sets, accompanied by research and technical reports, which will provide an important resource to researchers and analysts in the Department for Education and to the wider research

community. This rich data will support evidence-based policy development and further research.

1.1.3 Overview of study methodology

The Five to Twelve study is designed to track a representative cohort of children in state-funded education in England from year 1 to year 6 of primary school. It includes primary data collection from parents, teachers and children themselves over the period. Consent was also obtained to link survey data to education, health, tax and benefits administrative records.

The study is based on a random probability sample selected from the National Pupil Database (NPD) which provides individual records of the complete population of children in state-funded education. Records were selected from the 2022/2023 NPD census, with survey fieldwork carried out between October 2023 and August 2024 when children were in year 1, aged 5 to 6. A boost of children eligible for FSM were included in the sample design to increase the opportunity for analysis of that subgroup.

Year 1 of the study comprised a combination of a face-to-face interview with a parent/carer residing in the same household as the cohort child and responsible for their care (referred to as 'main informant' in this report). It also included cognitive assessments with the cohort child, and an online questionnaire with the child's other parent/carer(s), including those residing in the same (main) household as the child (referred to as 'other co-resident parent' in this report). Another online questionnaire was sent to those living for all or most of the time in a different household (i.e. 'own household parents', referred to as 'OHP/OHPs' in this report). See the Glossary for more information on these terms. In recognition of the growing body of literature, which highlights the relevance of father effects on children's wellbeing and development, this study design aimed to be inclusive of all parents and co-resident partners. This year also included a postal survey of teachers who were teaching the cohort children in year 1 (see section 1.2.2).

A total of 8,632 interviews were conducted, by a team of NatCen trained field interviewers, with the main informant of the selected cohort children in their main home. This number represented a 47% response rate (unweighted). Cognitive assessments were conducted with cohort children in 96% of these cases. In addition, 58% of other co-resident parents (excluding the main informant) completed the online interview. Teachers were approached to complete a short survey with parental consent, resulting in completed teacher surveys being available for 56% of cohort children.

A sophisticated weighting approach was applied to the data to take account of the sample design and non-response bias and enable robust inferences to the population. Separate weights were developed to enable analysis at the child-level and of both co-

resident and OHPs. More information on the sampling, methodology and weighting can be found in Appendix A (section 11.1).

At present, the data collection plan for subsequent years comprises:

- year 2: online-telephone survey of all parents; teacher survey
- year 3: online survey of the main informant parent and a self-completion web survey with cohort children
- year 4: online-telephone survey of all parents; teacher survey
- year 5: brief 'keeping in touch' online survey of parents
- year 6: multi-mode (online/telephone/face to face) survey of all parents and cohort children; teacher survey.

In addition to primary data collection, data from the Five to Twelve study will be linked with administrative records relating to educational attainment, health and other areas.

The next section provides more details about the methodology of the year 1 report.

1.2 The year 1 report

1.2.1 Aims and outline

This report presents findings from the first year of data collection from families in the Five to Twelve study. It aims to provide detailed findings on the wide range of measures collected through the four survey instruments. These are measures that have been found in previous research to be associated with educational attainment and wellbeing for children at this age or there is interest in investigating their influence on these outcomes. The findings will provide a baseline for future analysis of data to be collected in years 2 to 6 and beyond. The objectives of the report are to describe:

- the characteristics of year 1 children
- their behaviours
- their home environment
- their school experiences
- between-group differences in relation to socio-demographic and parental characteristics that emerge from the findings.

The eight sections of the report bring together the characteristics of the cohort of children, including their cognitive ability, their households and demographics and presents findings about children's lives at home and at school as well as in relation to co-resident parents and carers and OHPs.

Section 1 (this chapter) introduces the study and methods.

Section 2 presents findings about the cohort children, including their demographic characteristics, health and educational needs, and their socio-emotional development.

Section 3 discusses co-resident parents, carers and main household structure. It considers the socioeconomic context for the cohort child, and their parents' health, mental health and parenting style.

Section 4 details findings in relation to OHPs and their households, and their relationship with the cohort child and the main household.

Section 5 explores the home environment (in the main households), including the learning environment.

Section 6 focuses on the cohort children's school environment and primarily draws on data collected via the teacher survey, although some variables collected in the main informant interview are also used in this chapter.

Section 7 presents the findings of the cognitive assessments conducted with cohort children alongside the main informant interview (as outlined in section 1.2.2).

Finally, section 8 discusses the overall findings in relation to the research questions and draws out implications for future years of Five to Twelve.

1.2.2 Methodology

1.2.2.1 Data

The data used to conduct the analysis that forms the basis of this report comes from the multiple instruments used in the first year of data collection for the Five to Twelve study. These three instruments comprised:

- Face-to-face interview conducted with the main informant at the cohort child's main household at year 1. This included sections on household composition, the child's health, the child's life at home and at school, the parent's health and wellbeing, parenting style and collection of socio-demographic data. The main informant questionnaire contained several sensitive question areas within the self-completion component, including long term health conditions, domestic abuse, and financial issues. In addition, three baseline cognitive exercises were conducted with the cohort child as part of the main face-to-face interview.⁶
- Online questionnaire for the other co-resident parent and OHP, where relevant.

⁶ These were taken from the British Ability Scales BAS3 toolkit (Elliott and Smith, 2011). More detail is provided in section 7, Child Cognitive Assessments.

- Teacher survey: this paper survey was posted to teachers (or to headteachers where teacher names were not provided or found on school website) if the parents provided consent in the main informant interview. Teacher survey measures included child behaviour, classroom practices, child motor skills, bullying, child support accessed at school, child self-regulation, parent interest in education, pupil-teacher closeness and predicted attainment at KS2.

1.2.2.2 Analysis

Data analysis was conducted using R Studio and SPSS.

The analysis prepared for this report has been produced in accordance with the DfE Analytical Quality Assurance Framework.⁷

1.2.2.3 Key measures

The majority of the report disaggregates data by five main characteristics. These were selected for analytical use based on their relevance to the study objectives and to children's educational and wellbeing outcomes.

Three additional characteristics were used for analysis of OHP data. Full details of these are provided in section 4, Child and Own Household Parent.

The five main characteristics are as follows:

Eligibility for Free School Meals (FSM)

Understanding the role of socio-economic inequalities and their relationship to educational and wellbeing outcomes is a primary aim of Five to Twelve. To achieve this, the study used eligibility for FSM as a proxy measurement of disadvantage. The UK Government's FSM initiative exists to provide a healthy school meal to the most disadvantaged pupils (Department for Education, 2024a). Eligibility for FSM is contingent on receipt of one or more benefits, including Universal Credit, Income Support and Working Tax Credits. The FSM variable used in this report is current eligibility, as recorded in the Department for Education's NPD via the spring census of academic year 2022/2023 (when the cohort children were in reception).

Research suggests that eligibility for FSM is an imperfect proxy measure for disadvantage (Ilie and others, 2015; Taylor, 2017; Kounali and others, 2018; Campbell and Cooper, 2024). One key issue is that a small but significant group of children who live in poverty are not captured by measuring eligibility for FSM. Accordingly, we also disaggregate data by household income, as described below.

⁷ <https://www.gov.uk/government/publications/analytical-quality-assurance-at-the-department-for-education>

Special Educational Needs (SEN)

It is well-established that SEN is correlated with a wide range of educational and wellbeing outcomes in children (see the Five to Twelve literature review, Harland and others, 2024). The relationship between SEN and educational inequalities is an important area of inquiry for Five to Twelve. Data on SEN collected through Five to Twelve includes (see section 2.3.3 for more detail):

- administrative measures from DfE's NPD, comprising whether the child has been assessed as needing SEN support in school, their primary SEN type as assessed by the school (single code) and whether an Education Health and Care Plan (EHCP) is in place. This data was collected while the cohort children were in reception, in spring 2023.
- data on cohort child collected from the main informant, such as SEN (yes/no/not sure), SEN types (multi code) and whether the child has an EHCP.

NPD variables are used as explanatory variables in this report, for purposes of comparability across other studies and with DfE figures. The variable used to disaggregate by SEN status is, in the majority of cases, a binary SEN variable derived from NPD data. This indicates whether or not the child is registered as either accessing SEN support or having an EHCP, according to DfE records.

Where relevant to the report, data are further broken down by SEN type, again developed from data recorded on the NPD. This variable records each child's 'primary' SEN type which have been grouped into the following types:

- cognition and learning
- communication and interaction
- social, emotional and mental health
- physical and sensory need
- autism
- other

In this report, where reference is made to 'with SEN' and 'with no SEN', these correspond to NPD data using the binary SEN variable. However, 9% of parents/carers whose child was classified in the NPD as 'no SEN' reported in the main informant interview that their child did have SEN. This discrepancy may partly be a function of time, as the NPD data were collected in DfE's spring 2023 census while the children were in reception, between 7 and 15 months prior to main informant interviews. The information available in the NPD will therefore not include children who have been identified by schools in subsequent months before the survey interview. The discrepancy may also be due to the child's need

not having been assessed by the school to that point or differing assessments by parents and the school.

Cohort child gender

Gender is related to educational outcomes (Buchmann and others, 2008). The study collected data on cohort child gender using a three-category variable (male/female/other). However, due to small numbers of 'other' responses and accompanying statistical disclosure control (SDC) this category is not reported on.⁸ Child gender was correlated with both SEN and SEN type, as recorded on the NPD. Boys were more likely to have SEN overall and more likely to be recorded on the NPD as having communication and interaction SEN and autism, compared to girls.⁹

Household income

Household income (from all sources before tax and other deductions, including earnings from employment or self-employment, income from benefits and pensions, and income from other sources such as interest from savings, but excluding any money received from child maintenance/support) is used alongside FSM eligibility to measure households' financial status. Data on household income was collected in the study using a categorical variable with 20 bands, ranging from 0 to £4,999 to £150,000+. These were collapsed into five income categories for analytical purposes (three original income bands were collapsed into each analysis category except £0 to £19,999 which collapsed seven income bands into the analysis category):

- £0 to £19,999
- £20,000 to £39,999
- £40,000 to £59,999
- £60,000 to £89,999
- £90,000+

These categories were based approximately on quintiles and were not equivalised. Due to the collection of categorical income data, it was not possible to produce exact quintiles.

Parental education

Parental education is a known correlate of children's educational outcomes (Ilie, 2017; Taylor, 2017) and is essential to analysing the findings of this report. The main variable constructed for this purpose records the highest level of education achieved by the child's co-resident parent(s). Where a single parent is in the household, this variable will use

⁸ The very small number of 'other' cases were recoded as missing for analytical purposes.

⁹ Based on classification of 'primary' SEN on the NPD.

their highest level of education. Where there are two parents, this variable identifies the highest level of education across both parents.

In the OHP section of the report, a different education variable is used which is based on only the OHP's education level. OHPs were asked a shorter series of questions about their education level and therefore the structure of the variable differs.

There is a well-established link between education and income, in which years of education is associated with increased earnings (Psacharopoulos and Patrinos, 2018). A similar relationship is therefore frequently observed between dependent variables and both parental education and household income in this report.

A note on ethnicity

Ethnicity is a key characteristic in relation to attainment gaps in primary education (Strand, 2014) and, as such, was considered as a core characteristic for the analysis that informs this report. A comprehensive understanding of the influence of ethnicity requires a nuanced and detailed approach. However, once the Five to Twelve data is broken down by sub-groups (such as SEN type, for example) as well as ethnic group, sample sizes for certain ethnic groups become too small for robust statistical analysis. A limitation of this descriptive report is therefore that analysis by ethnicity falls outside scope. We report on ethnicity and eligibility for FSM in section 2.2.5 for contextual purposes only.

1.2.3 Reporting conventions

1.2.3.1 Inferential statistics

All figures outlined in the report have been weighted based on the probability of being sampled and to account for non-response. The frequencies and analyses provided are inferential statistics, meaning that they represent population estimates. Weighted and unweighted bases (denominators) are reported in tables for descriptive purposes. Missing data have been removed.

Figures presented throughout the report therefore represent estimates for the population of children in state-funded primary education in England in year 1. The data have been weighted to the full population of children as described by the NPD, which provides the best available data on the characteristics it covers. This weighting accounts for the oversampling of children eligible for FSM in the sample design.

1.2.3.2 Significance testing

Within this report, any associations and/or differences discussed have been tested for statistical significance. Where differences are discussed that are not statistically significant, this is noted in the text.

Given the descriptive rather than analytical focus of this report, analysis conducted primarily explored the relationships between two variables. With the exception of multivariate models detailed in sections 2.3.3, 2.3.6, 7.2, 7.3 and 7.4 with more detailed tables in Appendix J section 11.10, findings reported in the text do not control for other factors or potential confounding variables. Where multivariate analysis has been conducted and other factors have been controlled for, this is made clear in the text.

The report used a two-stage approach to significance testing. All tables produced were examined for associations between two variables using the chi-square test, accounting for the complex survey design. Subsequently, where associations were explored in more detail, logistic regression was used to identify associations between two categories.

1.2.3.3 Rounding

All percentages have been rounded to the nearest whole number. For this reason, sums may not equal 100%. This is especially relevant where categories have been collapsed.

2. The cohort child

Key Findings:

- 51% of children were boys and 49% were girls.
- 43% of children were aged five and 56% of children were aged six, reflecting the timing of fieldwork. 41% of children were 'summer born': that is, born between 1st April and 31st August (Department for Education, 2024b).
- 18% of children were eligible for free school meals (FSM). Eligibility for FSM was associated with parental education and ethnicity. 4% of children were eligible for FSM and with Special Educational Needs (SEN).
- over one-third of children (36%) had longstanding health conditions.
- 12% of children were classed as having a Special Educational Need according to National pupil database (NPD) records.
- 37% of children exercised every day, 25% exercised on 4-6 days a week, 33% on 1-3 days, and 5% had not done any 30-minute exercise activities in the previous 7 days.
- over one-half of the children (54%) always had a regular bedtime, while 4% never had one.
- 15% of children had lower than average gross motor skills, with children with SEN and those from disadvantaged backgrounds being more likely to have less developed skills.
- children with SEN and those from disadvantaged backgrounds had higher levels of difficulties in cognitive, emotional, and behavioural self-regulation.

2.1 Introduction

This section explores the characteristics of the cohort child, including their gender, age, ethnicity, free school meal (FSM) eligibility, birth weight, health and wellbeing. The section outlines findings on special educational needs (SEN) status (including having an education, health, and care plan (EHCP)) as recorded both in the National Pupil Database (NPD) and reported by the main informant. Findings in relation to children's health behaviours, such as exercise, sleep and whether they have a regular bedtime, are discussed. Finally, children's physical development, socio-emotional difficulties and ability to self-regulate emotions are outlined.

In common with the rest of this report, all differences noted have been tested for statistical significance unless otherwise stated. Analysis is limited to the relationship

between two variables and does not control for other factors. Please refer to the reporting conventions section (1.2.3) for more information.

2.2 Characteristics of the cohort children

2.2.1 Gender

Forty-nine per cent of children were female and 51% were male.

2.2.2 Age

Children in year 1 are aged between five and six years old. At the time of the main informant interview, 43% of children were aged five and 56% of children were aged six. The greater proportion of six-year-olds is likely to reflect the timing of fieldwork, which largely took place in the spring and summer terms. Fewer than 1% of children were aged four and fewer than 1% were aged seven at time of interview.

Forty-one per cent of children were 'summer born': that is defined as born between 1st April and 31st August (Department for Education, 2024b). Although no association was identified between summer born children and SEN status, or any other explanatory variable used in this report, it is likely that this is an artefact stemming from the difference in timing of the collection of NPD and survey data.

2.2.3 Ethnicity

Sixty-two per cent of cohort children were White British and 8% were White Irish, Gypsy or Irish Traveller, Roma or any other White background.

Fifteen per cent of children were Asian/Asian British, 6% were Black/Black British, 6% were Mixed/multiple ethnicities, 1% were Arab and 1% were classified as 'Other'.

See Appendix C in 11.3 for a further breakdown of the cohort child's ethnicity.

2.2.4 Whether born in the UK

Children born in the UK formed 93% of study participants. Seven per cent were born outside of the UK.

Children eligible for FSM were slightly more likely to be born in the UK (96%) than those not eligible for FSM (92%).

2.2.5 Eligibility for Free School Meals (FSM)

Eighteen per cent of cohort children were eligible for FSM, according to NPD data which had been collected from schools in the spring 2023 census. This figure is slightly lower than the 22% figure in DfE statistics for 2023/2024 (Department for Education, 2025g). However, it is in line with the percentage for reception year children, which is the point at which the administrative data, which includes FSM, was collected.

Children with SEN were more likely than those with no SEN to be eligible for FSM (30% of those with SEN compared to 16% of children with no SEN).¹⁰ Children with cognition and learning difficulties, social, emotional and mental health needs, and autism were most likely to be eligible for FSM (36%, 33% and 30% respectively).

Fifty per cent of children in main households with a reported income of 0–£19,999 were eligible for FSM, compared to 26% in main households with an income of £20,000–£39,999, 6% of children in main households with an income of £40,000–£59,000 and under 3% of children in main households with an income of over £60,000. These figures demonstrate the way in which FSM eligibility does not fully capture children living in poverty, as discussed in section 1.2.2.

Eligibility for FSM was also correlated with co-resident parental education and ethnicity.¹¹ There was a linear relationship between co-resident parental education and FSM eligibility. Fifty-two per cent of children in households with no parental qualifications were eligible for FSM: this number dropped incrementally with each level of education, reaching 6% of children in households where the highest level of education was degree level.

Arab children were more likely to be eligible for FSM compared to other ethnic groups. Thirty per cent of Arab children were eligible for FSM, compared to 26% of Black/Black British children, 22% of children with Mixed or Multiple ethnicities, 19% of White British children and 12% of both Asian/Asian British children and White 'Other' children.

The proportion of children both eligible for FSM and with SEN was 4%. Fourteen per cent were eligible for FSM and had no SEN, while 8% had SEN and were not eligible for FSM. Seventy-four per cent were neither eligible for FSM nor had SEN.

¹⁰ Please note, as discussed in the reporting conventions section (1.2.3), all differences noted in this report have been tested for statistical significance.

¹¹ Although ethnicity is not a core independent variable used in this report, analysis of FSM eligibility by ethnicity was included due to the known association between FSM eligibility and ethnicity (Gorard. 2012).

2.3 Child's health, physical development, SEN and wellbeing

2.3.1 Birth weight

Low birth weight is known to be associated with childhood developmental problems and worse health outcomes in later life (Fletcher, 2011). An emerging body of literature also suggests that 'large-for-gestational-age' (LGA) babies may be associated with longer-term adverse outcomes, although evidence is mixed (Chiavaroli and others, 2016; Khambalia and others, 2017; Lei and others, 2017). Low birth weight is defined as a recorded birth weight under 2,500g and gestational age of at least 37 complete weeks (World Health Organisation, n.d.).¹² Definitions of LGA are not consistent across the literature and can be defined as either above 4,000g or above 4,500g. The NHS defines LGA as above 4,000g (NHS Gateshead Health Foundation Trust, 2024).

The mean birth weight for the cohort was 3.281 kilogrammes. A total of 79% of children had a typical birth weight (ranging from 2.5-4.0 kg). Ten per cent of the cohort had low birth weight and 11% were LGA.

The year 1 cohort were born in 2017 and 2018. The distribution of the Five to Twelve cohort's birth weight is similar to that held by the Office for National Statistics¹³ for the years 2017 and 2018 in England (ONS, 2017 and 2018) (see Table 1). The Five to Twelve cohort has a smaller proportion with a reported birth weight in the middle of the distribution. This results in a slightly larger proportion in the Five to Twelve cohort in the low birth weight and LGA groups compared to the ONS data.

Gender and SEN were associated with birth weight, consistent with other studies (Voldner and others, 2009; Bettge and others, 2014). Boys (14%) were more likely than girls (8%) to be LGA. Children with SEN (14%) were more likely than children with no SEN (9%) to be born with low birth weight. Statistically significant differences were not identified between birth weight and FSM eligibility or household income.

2.3.2 Health conditions

Childhood health is known to be associated with educational attainment (Hughes and others, 2021). Experience of serious or longstanding health conditions has clear implications for educational outcomes, not least in terms of school absence. Research indicates that school-age health problems negatively impact on short-term educational attainment, with effects accumulating over time (Jackson, 2015). Reasons for this are

¹² Please note that the survey collected information on birth weight but not gestational age.

¹³ See ONS data collated from birth registrations at (table 5):

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/datasets/birthcharacteristicsinenglandandwales>

Table 1: Distribution of cohort birth weights compared to ONS records

Birth weight (grams)	ONS 2017 (%)	Five to Twelve 2017 (%)	ONS 2018 (%)	Five to Twelve 2018 (%)
Under 1500	1	2	1	1
1500 to 1999	1	2	1	2
2000 to 2499	5	6	5	7
2500 to 2999	16	17	17	17
3000 to 3499	35	36	36	36
3500 to 3999	29	26	29	26
4000 to 4499	9	9	9	9
4500 to 4999	1	2	1	2
5000 and over	<1	<1	<1	1
Not stated	-	-	2	-
<i>Unweighted Base</i>	<i>646,794</i>	<i>2,890</i>	<i>625,651</i>	<i>5,330</i>
<i>Weighted Base</i>	<i>n/a</i>	<i>2,915</i>	<i>n/a</i>	<i>5,325</i>

Base: All year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

thought to relate to absence and lower educational expectations. Prenatal and infant health problems tend to have longer-term effects on children's educational outcomes (Harland and others, 2024).

The Five to Twelve questionnaire asked the main informant:

'Has the child ever had any of these serious or longstanding health problems?'

Main informants were able to select multiple categories. The distribution of responses is presented in Table 2.

Over one-third of children (36%) had experienced serious or longstanding health problems at some point in their lives. This appears to be a relatively high level of longstanding health conditions, but comparisons of this measure with other studies are not clear due to variations in questionnaires and study designs. The Millennium Cohort Study (MCS) in the age 5 sweep found 20% of children had a longstanding condition, but this was focused on 'current' conditions rather than across the lifetime (Hensen and others, 2008). See Figure 1 for the proportion of children who had ever experienced a serious or longstanding health problem, broken down by demographic characteristics.

This co-occurrence of conditions is an important theme in the literature (Hesketh and others, 2016). Of children with a health condition, 58% had a single health condition, 22% had two co-occurring conditions, 8% had three, 3% had four and 3% had five or more co-occurring conditions. Please note that these figures do not sum to 100. This is because 5% of main informants who reported that their child had ever had a serious or

longstanding health condition selected that 'None' of the conditions listed were applicable. An option to select 'Other' was also available.

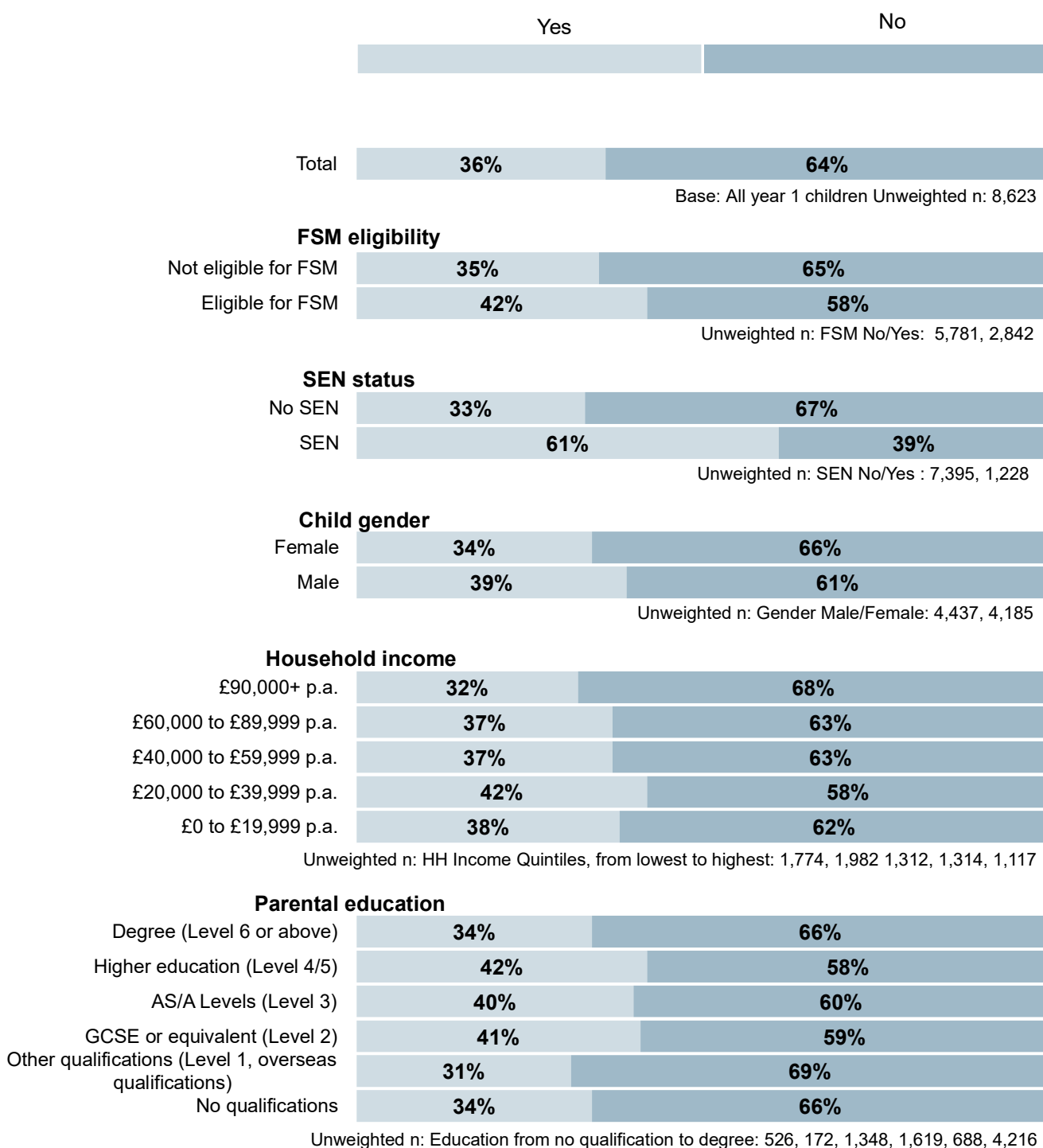
Table 2: Prevalence of cohort child serious or longstanding health conditions

Health condition	All children (%)	Eligible for FSM (%)	Not eligible for FSM (%)	SEN (%)	No SEN (%)
None	64	58	65	39	67
Breathing problems (including wheezing or asthma)	10	12	9	13	9
Allergies and intolerances	8	8	8	10	7
Eye/sight problems	8	11	8	14	8
Skin problems	7	8	7	10	6
Ear, nose and throat or hearing problems	7	8	6	14	6
Development problems (unspecified/other)	4	6	3	23	1
Stomach and digestion problems	3	5	3	8	3
Growth concerns (underweight or low muscle tone)	2	2	2	5	1
Heart problem	1	2	1	3	1
Bone problems	1	1	1	2	1
Epilepsy (including fits)	1	1	1	2	<1
Blood disorders	1	1	1	1	<1
Urinary and/or kidney problems	1	2	1	2	1
Genetic problems and chromosomal disorders	1	2	1	5	<1
Health problems (unspecified/other)	1	2	1	3	1
Diabetes	<1	<1	<1	<1	<1
Cerebral Palsy	<1	<1	<1	1	<1
Other	2	6	3	23	1
<i>Unweighted Base</i>	<i>8,623</i>	<i>2,842</i>	<i>5,781</i>	<i>1,228</i>	<i>7,395</i>
<i>Weighted Base</i>	<i>8,623</i>	<i>1,547</i>	<i>7,076</i>	<i>1,017</i>	<i>7,605</i>

Base: All year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 1: Prevalence of cohort child's serious or longstanding health conditions, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

2.3.2.1 Demographic differences in child's longstanding health conditions

The prevalence of having ever had a serious or longstanding health problem was associated with all independent variables. Girls were less likely to have ever had longstanding health conditions than boys (34% compared to 39%). This was largely driven by a higher prevalence among boys with breathing problems (12% of boys compared to 7% of girls), allergies and intolerances (9% compared to 6% of girls) and developmental problems (5% compared to 3% of girls).

Overall, children eligible for FSM had higher levels of health conditions: 42% of FSM-eligible children had had at least one longstanding health condition, compared with 35% of children not eligible.¹⁴ Once broken down by condition, among cohort children with a longstanding health concern, this association no longer held for the majority of the conditions, remaining significant for allergies and intolerances; stomach and digestion problems; development problems; and other health problems (see Table 3).

SEN status was also associated with significantly higher rates of serious or longstanding health conditions: 61% of children with SEN had longstanding health conditions compared to 33% of children with no SEN.

Health conditions frequently overlap with specific special and educational needs and disabilities. Some of this overlap is visible in the degree of prevalence of longstanding health conditions across different categories of SEN. For example, 92% of children with a physical or sensory need had longstanding health conditions, compared to 68% of children with autistic spectrum conditions, 67% of those with a cognition and learning need, 56% of children with communication and interaction need and 53% of those with a social, emotional and mental health support need. Breaking the data down by category of health condition also provides insights into interactions between SEN and health conditions. For example, among children with a condition, prevalence of the following conditions was higher among children with SEN compared to those with no SEN: breathing problems; allergies and intolerances; ear, nose and throat or hearing problems; stomach and digestion problems; development problems; growth concerns; bone problems; other health problems; epilepsy; genetic problems and chromosomal disorders and Cerebral Palsy (see Table 3).

The co-occurrence of health conditions was associated with FSM eligibility, SEN status and gender. Children eligible for FSM (43%) were more likely than those not eligible (35%) to have two or more health conditions. Similarly, children with SEN were more likely than those with no SEN to have multiple comorbidities, with 50% of children with SEN having two or more conditions compared to 33% of those with no SEN. Children with SEN were twice as likely to have four health conditions (6% compared to 3%) and

¹⁴ Please note, as discussed in the reporting conventions section (1.2.3), all differences noted in this report have been tested for statistical significance. Analysis is limited to the relationship between two variables and does not control for other factors.

nine times as likely to have 5 or more conditions (9% compared to 1%). Children with cognition and learning difficulties and those with physical and sensory needs were most likely to have three or more comorbidities (45% and 46% respectively).

Table 3: Longstanding health conditions of cohort children with a condition, by FSM eligibility and SEN status (NPD)

Health condition	Eligible for FSM (%)	Not eligible for FSM (%)	SEN (%)	No SEN (%)
Breathing problems (including wheezing or asthma)	30	27	22	29
Eye/ sight problems	26	24	25	24
Allergies and intolerances	19	23	17	23
Skin problems	19	20	17	20
Ear, nose and throat or hearing problems	21	19	24	18
Stomach and digestion problems	12	10	15	9
Heart problems	5	4	5	4
Urinary and/or kidney problems	4	4	4	4
Development problems (unspecified/other)	16	10	40	4
Growth concerns (underweight or low muscle tone)	5	5	9	3
Bone problems	3	2	4	2
Blood disorders	2	2	2	2
Other health problems (unspecified)	4	2	5	2
Epilepsy (including fits)	2	2	4	1
Genetic problems and chromosomal disorders	4	3	10	1
Diabetes	1	1	<1	1
Cerebral palsy	<1	1	2	<1
<i>Unweighted Base</i>	<i>1,155</i>	<i>1,917</i>	<i>714</i>	<i>2,358</i>
<i>Weighted Base</i>	<i>629</i>	<i>2,331</i>	<i>580</i>	<i>2,381</i>

Base: All year 1 children with a longstanding health condition

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

There was an overall association between child health and main household income, with children in the highest household income quintile less likely to have a longstanding health condition (32%) compared to all other income quintiles (37% to 42%). Once broken down by specific condition this relationship again dropped out for many of the categories, except remaining significant for children with eye/sight problems; stomach and digestion

problems; allergies and intolerances; breathing problems; epilepsy; genetic problems and chromosomal disorders; and other health and development problems.

A similar phenomenon was observed in the relationship between child health and highest level of (co-resident) parental education. Overall, children whose parents' highest level of education was 'other' qualifications had the lowest prevalence of serious or longstanding health conditions (31%), followed by those with parents with no qualifications as well as parents with degree or above (both 34%). This association disappeared for most categories once broken down by type of longstanding health condition. However, it remained significant for children with eye/sight problems; ear, nose and throat or hearing problems; allergies and intolerances; breathing problems; epilepsy; and other development problems.

Multivariate analysis was conducted to indicate the level of association of these demographic and socioeconomic factors with longstanding health conditions independently from one another. The model, which included gender, FSM eligibility and parental education, confirmed that boys and children eligible for FSM were more likely to have had longstanding health conditions controlling for other factors. There was a less clear relationship with parental education. See section 11.10 for the multivariate analysis table output.

2.3.3 Special Educational Needs

Focusing on Special Educational Needs (SEN) among younger children is crucial in understanding and addressing subsequent educational attainment disparities (as well as a range of other outcomes). Children with SEN often face unique challenges that can hinder their academic progress, including cognitive, emotional, and physical difficulties. These challenges are likely to require tailored educational strategies and resources to support effective learning. The disparity in attainment outcomes for children with SEN is stark. DfE analysis (Department for Education, 2024c) identifies considerably lower attainment at GCSE for pupils with SEN (7% of pupils with an EHCP achieved grades 5 or above in English and mathematics GCSEs compared to 21% of pupils with SEN support and 51% of pupils with no identified SEN in 2023). This persists into higher education, with 9% of those with an EHCP attending university in 2021 and 2022 compared to 24% of those with SEN Support and 51% among those without SEN.

Understanding how SEN is addressed within the school system and how it intersects with other factors (e.g., socio-economic background, ethnicity) is vital to understanding the broader context in which children are developing and learning. This study focuses on children aged five to twelve presenting an important opportunity to investigate whether and how early SEN identification and intervention can shape educational and developmental outcomes (Department for Education, 2022b).

Five to Twelve collected information about the cohort children's SEN from two sources. Firstly, the NPD provided school assessments in relation to SEN Support and data on EHCPs along with their assessment of children's primary SEN. Secondly, the survey asked the main informant a range of questions in relation to their child's SEN, including their assessment of whether their child had such needs or other difficulties, the specific type of need, and support for those needs via an EHCP and/or other support at school. This section focuses initially on the NPD measures, given the importance of this identification to the provision of support.¹⁵ We then turn to the perspective of the main informant and provide some comparisons of these measures.

2.3.3.1 SEN definitions

A child or young person has SEN if they have a learning difficulty or disability which calls for special educational provision to be made for him or her, as defined in the Children and Families Act (2014). A child of compulsory school age or a young person has a learning difficulty or disability if he or she:

- has significantly greater difficulty in learning than the majority of others of the same age, or
- has a disability which prevents or hinders him or her from making use of facilities of a kind generally provided for others of the same age in mainstream schools or mainstream post-16 institutions

Special educational provision for the primary school age group is defined as provision that is additional to or different from that made generally for other children or young people of the same age by mainstream schools.

The process of identifying SEN is set out in the Special Educational Needs and Disability Code of Practice (2015a) which provides schools and local authorities with statutory guidance on how to assess and support children with SEN. The SEN Code of Practice describes four broad areas of need:

- communication and interaction
 - e.g., Speech, Language and Communication Needs (SLCN), Autism Spectrum Condition (ASC)
- cognition and learning
 - e.g., Moderate or Severe Learning Difficulties (MLD/SLD), Profound and Multiple Learning Difficulties (PMLD) Specific Learning Difficulties (e.g., Dyslexia, Dyscalculia)
- Social, Emotional and Mental Health (SEMH)

¹⁵ Please note that these NPD measures are also used for analysis throughout the rest of the report.

- e.g., Attention Deficit Hyperactivity Disorder (ADHD), anxiety disorders, behavioural issues
- sensory and/or physical needs
 - e.g., Visual and/or Hearing Impairments (VI/HI), physical disabilities.

At the age of 5 and 6, children with suspected SEN may be identified through a combination of teacher observations, parental input, and, in some cases, assessments by specialists such as educational psychologists. For these children, this period is significant in terms of the early identification of SEN, as it is often the first time these needs are formally acknowledged and addressed within the school environment. There will of course be other children whose needs have been identified from an early age and will have provision in place. The categories in the SEN Code of Practice are broad and there is considerable variation between children within them in terms of the level of support required. Further, children may have multiple types of need.

There are two ways in which children with SEN are supported:

- SEN Support (in mainstream schools): SEN Support is the support a child or young person with SEN receives from the nursery, school or college they attend, from its own resources. The responsibilities of each setting are set out in the SEN Code of Practice. SEN Support is a 4-stage process (sometimes described as a graduated response), a cycle through which earlier decisions are considered, refined and revised as needs and required support become better understood.
- Education, Health and Care Plan (EHCP): this is a legal document which describes a child or young person's SEN and the provision that must be put in place by the local authority and sometimes the local health authority (via the integrated care board) to meet them. An EHCP is for children who have a higher level of need than can be reasonably provided by a setting under SEN Support. Therefore, not all children with SEN have an EHCP.

2.3.3.2 Prevalence of SEN (assessed by schools)

As described in section 2.3.3, information about cohort children's SEN was collected from both the NPD based on the school's assessment and from the main informant in the interview.

According to school assessments provided in NPD data, 12% of year 1 cohort children were categorised as having SEN at the point where the data was collated in their reception year (where 9% had SEN Support with no EHCP and 3% had SEN with an EHCP) (Figure 3). These figures correspond with official DfE statistics (Department for Education, 2026). Among those recorded as having SEN, the most common type of primary need was communication and interaction (55%), followed by autism (14%),

social, emotional and mental health (12%), cognition and learning (9%), and physical and sensory needs (5%). Other SEN was recorded for 5% of children with SEN.

EHCPs are put in place for children who have a higher level of need than can be reasonably provided by a setting under SEN Support. One-quarter (24%) of children with SEN had an EHCP in place according to NPD data. Children whose primary SEN was autism were particularly likely to have an EHCP (57%) as were those with cognition and learning needs (47%) (Figure 2).

2.3.3.3 Demographic differences in SEN

The prevalence of SEN varied substantially between different socioeconomic and demographic groups (Figure 3).

Disadvantaged children eligible for FSM were twice as likely to be classified as having SEN: 20% of children eligible for FSM had SEN compared to 10% of those not eligible.

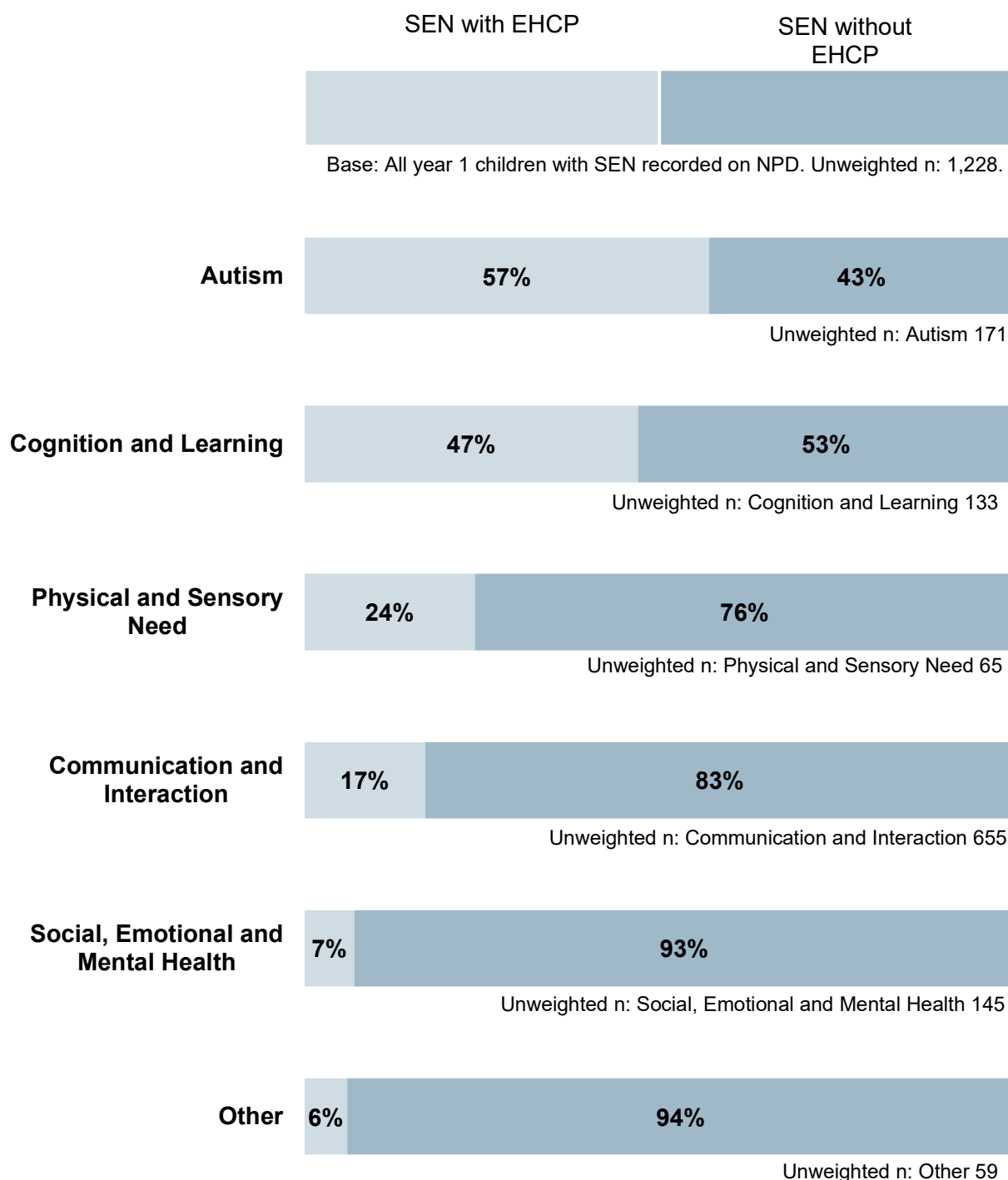
This was also reflected in differences between household income groups, with children in lower income (main) households more likely to have SEN: 17% of children in the lower two income quintiles had SEN, compared with 6% and 7% in the two highest income quintiles. A strong association was also found with the level of parental education, with children of (main household) parents with no qualifications (18%) twice as likely to have SEN as those with a parent with a degree or above (9%).¹⁶ Separately, there was a strong association with demographic characteristics. Boys (17%) were more than twice as likely to be classed as having SEN according to the NPD compared to girls (7%).

Although there was variation between socioeconomic and demographic groups in SEN prevalence, differences between groups in relation to primary SEN type recorded in the NPD were not substantial. According to NPD data, there was no statistically significant association between SEN type and child gender, eligibility for FSM, highest co-resident parental education level or main household income.

Multivariate analysis was conducted to indicate the level of association of demographic and socioeconomic factors with SEN independently from one another. In a model that included gender, FSM eligibility and parental education, this confirmed that boys and those children eligible for FSM were more likely to have been identified as having SEN controlling for other factors. There was no association with parental education. See section 11.10 for the multivariate analysis table output.

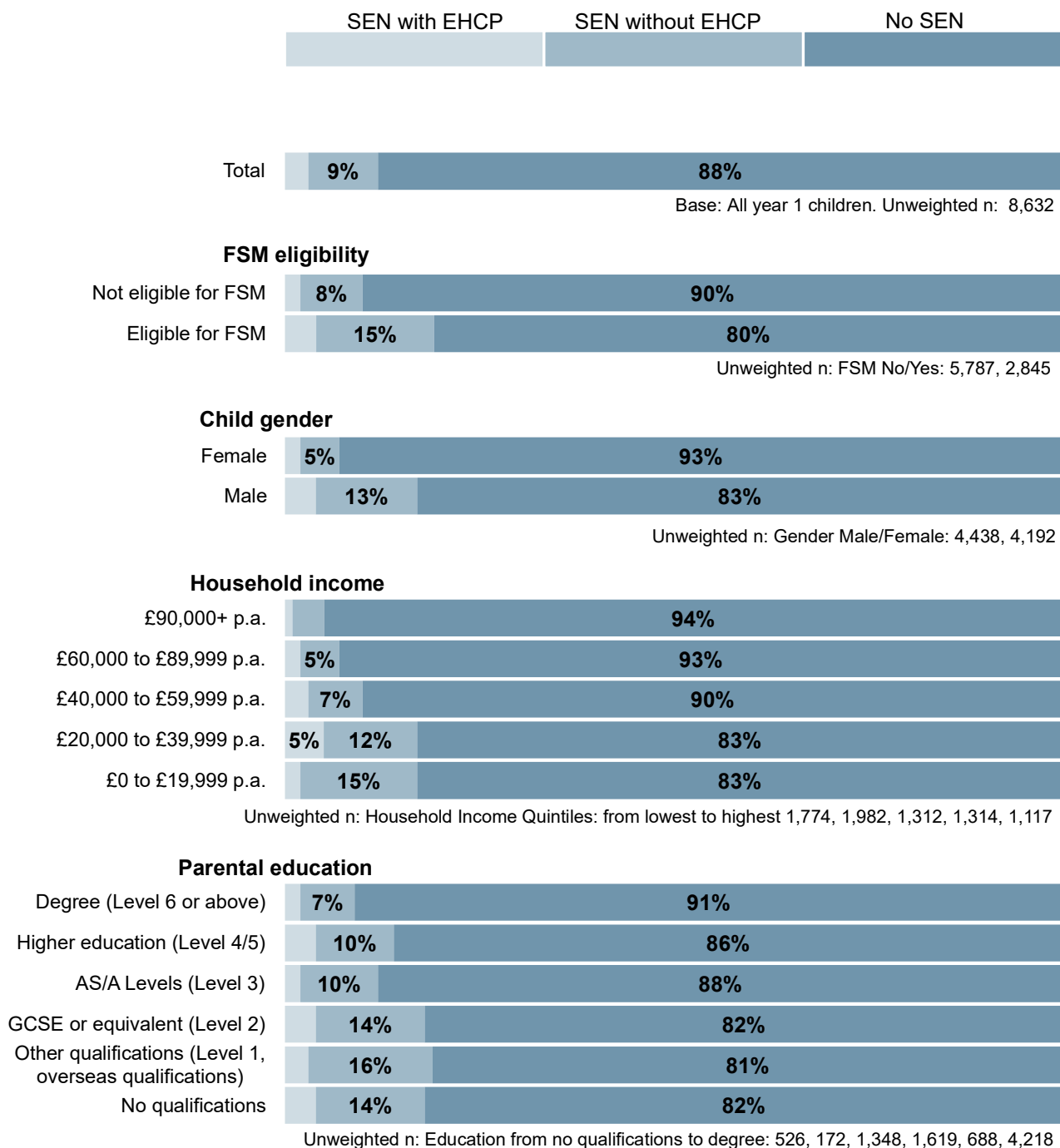
¹⁶ Please note that any slight differences between these figures and the numbers in Figure 3 are due to rounding.

Figure 2: Proportion of cohort children with SEN with and without an EHCP, by primary SEN category (according to NPD)



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 3: Prevalence of SEN as recorded on NPD, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

2.3.3.4 Type of cohort child's SEN (assessed by main informant)

In addition to DfE administrative NPD data on SEN, the study collected the parent or carer perspective on their child's needs. The study asked the main informant (the cohort child's mother, father or carer who completed the main questionnaire) whether they considered their child to have SEN. The question asked:

"Do you consider (child) to have a Special Educational Need (SEN)? This could be because of learning, development or behavioural difficulties. We are interested in what you think rather than official diagnoses."

This section focuses on the types of SEN that were reported by main informants in the study.

Four-fifths (81%) of main informants reported that their child did not have SEN, with 16% reporting that they did and a further 3% reporting that they were not sure. The association of SEN with demographic and socioeconomic characteristics was broadly similar to that seen for the NPD measure.

Main informants who reported that their child had SEN were asked to indicate which types of need their child had. Respondents could select multiple needs. Table 4 shows the distribution of SEN type among all year 1 children. The most common types of SEN were autism (9% of year 1 children), social, emotional and mental health issues, including attention deficit hyperactive disorder (ADHD) (9%) and speech, language and communication needs (8%).

As noted in the discussion of health conditions, co-occurrence of conditions is an important consideration. Around two-fifths (42%) of children reported by the main informant as having SEN had one type of need, with three-fifths (58%) having two or more types. Those who had more than one condition were considerably more likely to have an EHCP in place according to NPD data (21% for those with more than one type of need compared to 5% of those with one type).

Main informants who did not consider their child to have SEN were asked about any issues and/or difficulties that their child experienced that might impact their educational experience, including hearing, vision, mobility and/or learning difficulties or social, emotional and/or behavioural issues. We refer to these collectively as 'other difficulties'. Most children not considered to have SEN by their parent/carer did not have other difficulties (91%). However, 3% of those not regarded to have SEN by the main informant experienced hearing difficulties; 3% had social, emotional, and/or behavioural issues; 2% had vision difficulties, and 2% had learning difficulties.

2.3.3.5 Support for SEN and other difficulties at school

The majority (94%) of main informants whose child had SEN, or where the main informant did not report SEN but did report other difficulties, reported discussing their child's issues with the school.

Table 4: Cohort child SEN type, according to main informant

SEN type	%
Autistic spectrum condition (e.g. autism, Asperger's syndrome)	9
Social, emotional and mental health issues, including attention deficit hyperactive disorder (ADHD)	9
Speech, language and communication needs	8
Moderate learning difficulties (incl. basic literacy and numeracy skills, speech and language delay, problems concentrating, under-developed social, emotional and personal skills)	4
Specific learning difficulty (e.g. dyslexia, dyspraxia)	2
Severe learning difficulties (incl. having little or no speech, needing support with daily activities, needing life-long support)	2
Hearing impairment or deafness	1
Visual impairment or blindness	1
Multi-sensory impairment (i.e. hearing and visual impairment)	1
Physical disability (e.g. issues with movement or other functions that impact on day-to-day life, cerebral palsy)	1
Profound and multiple learning difficulties (PMLD)	<1
Not sure - No diagnosis yet	2
No SEN	81
<i>Unweighted Base</i>	8,625
<i>Weighted Base</i>	8,626

More than one category could be selected.

Base: All year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Main informants whose child was eligible for FSM were slightly more likely to have discussed SEN/other difficulties with their school (96%), compared to those not eligible (93%). There was no association between having had these discussions and household income. However, those without qualifications were less likely to have had discussions with the school (87% compared to 93% of those with GCSEs and 94% of those with a degree or above).

In two-thirds of cases (65%) where discussions had happened, the main informant reported that their child had received support for their SEN or other difficulties, while the remaining third (35%) had not. Where the child had needs that the main informant reported as SEN, there was generally a high proportion who received support. For example, 97% of children where the type of SEN was severe learning difficulties received

support at school, and 93% received support where there was a physical disability. Children whose main informant identified a specific learning difficulty such as dyslexia were somewhat less likely to receive support at 75%.

Boys with SEN, or with other difficulties, were more likely to receive support compared to girls with SEN or other difficulties (69% compared to 59%). When examined in more detail, the driver of this difference is that boys were slightly more likely than girls to receive support with other difficulties. Boys and girls with SEN receive similar levels of support at school.

Children reported as having SEN by the main informant who were also registered on the NPD as having SEN were more likely to receive support at school. More than four-fifths (85%) of this group received support (rising to 96% of those with an EHCP), compared to 51% of children with no SEN recorded on the NPD but whose main informant parent or carer had identified needs.

The perspective of teachers regarding support for children is discussed in section 6.7.

As noted earlier, EHCPs are legal documents. They identify the support that local authorities are required to ensure children receive, where children's needs are beyond what the school setting could reasonably provide. Where main informants had said their child had SEN, they were asked whether their child had an EHCP in place: One-third (34%) of children with SEN had an EHCP in place and a further 24% were in the process of being assessed, with 42% not having an EHCP. Five to Twelve did not collect data on whether EHCPs were accessed in good time, but there is broad acknowledgement that need in this area has outstripped funding for services, as indicated by the provision of EHCPs themselves: only one-half (50%) of EHCPs were in place within the required timeframe of 20 weeks according to DfE figures for 2023.¹⁷

2.3.3.6 Differences between the SEN measures

Early identification of SEN is important for facilitating timely provision of appropriate learner support. Important differences were identified in the reported prevalence of SEN between the administrative records and information collected in the survey. While some degree of discrepancy is to be expected, given the different contexts of family/home and school life, these differences could point to some level of unmet need and/or low awareness of SEN at home. Where a need is identified by a parent but not in the NPD this may indicate needs that are not so significant that they need to be recorded on the SEN register. Alternatively, such a discrepancy could point to the child's needs not yet having been assessed by the school, differences between parents and schools in the identification/definition of degree and type of needs, or a difference in timing of the measures. On the other hand, where needs are identified by schools but not parents, it

¹⁷ See figures published by DfE at [Education, health and care plans, Reporting year 2024 - Explore education statistics - GOV.UK](#)

may be that the SEN is more prominent in a school or classroom environment than it is at home, and/or that a parent or parents have not been able to identify the need themselves.

The NPD suggested 12% of children had SEN, compared with 16% based on the survey measure. However, these measures do not fully overlap. Eight per cent of all year 1 children were identified as SEN on both the NPD and survey measures. This means that one-half (48%) of children identified by main informants as having SEN were not recorded as such in the NPD records. Furthermore, one-quarter (27%) of children recorded as having SEN on the NPD data were not reported as such by main informants.

The timing of data collection plays an important role in this discrepancy: the NPD data available for this report are taken from the Spring Census of the academic year 2022-2023, meaning the SEN measure was recorded when children were in the spring of their reception year, between six and 18 months prior to their survey interview. DfE data suggests that the prevalence of SEN increases during primary school: in the 2023/2024 SEN prevalence increased with year group from 15% for year 1 pupils to 20% in year 6.¹⁸ However, this rate of identification would not explain the level of discrepancy observed. The degree to which there may be unmet needs are explored in this section below.

The differentials could also be explained by two further factors. Firstly, parents and schools might disagree that a pupil has SEN. A second contributory factor might be the length of time that it takes for SEN and EHCP assessment to take place.

The discrepancies identified raise important questions about how SEN is classified, identified and reported at school, how SEN is understood and identified by parents, as well as the role of discussions with parents in SEN identification. Importantly, children with SEN do not always go on the school SEN register (Alston, 2024). Notwithstanding this fact, and noting that there is a mismatch between the timings of the two sources of information about SEN, lower levels of recording on administrative records for specific types of need identified by the main informant could also indicate slower recognition of these needs or a more contested SEN.

Table 5 shows the SEN type according to the main informant and whether the cohort child is recorded as SEN in the NPD. This suggests that children with a severe learning difficulty (59%) and a physical disability (46%), according to the main informant, were more likely to be recorded as having SEN with an EHCP on the NPD compared to other types of need. A total of 7% and 23% of these groups respectively were not recorded as having SEN on NPD. While 59% of those with social, emotional and mental health issues including ADHD and 55% of those with specific learning difficulties such as dyslexia, according to the main informant, were not recorded as having SEN on NPD.

¹⁸ Figures generated from data published on DfE website: [Special educational needs in England, Academic year 2023/24 - Explore education statistics - GOV.UK](https://www.gov.uk/government/statistics/special-educational-needs-in-england)

Table 6 represents SEN type according to the main informant, within each NPD primary SEN type. It presents each single NPD category broken down by the conditions identified by main informants. We see that there is a general correspondence between the measures, and high correspondence in some instances. For example, of children identified on the NPD as autistic, 94% were also identified as autistic by the main informant. Two-thirds (65%) of children identified as autistic on the NPD were also identified as having speech, language and communication needs. This analysis highlights that main informants often identified multiple types of SEN for their children, and that identifying a primary need among them may not be straightforward.

Table 5: Types of SEN identified by main informant, by NPD recorded SEN support

SEN type according to main informant	NPD record: SEN with EHCP (%)	NPD record: SEN without EHCP (%)	NPD record: No SEN (%)	<i>Unweighted Base</i>	<i>Weighted Base</i>
Autistic spectrum condition (e.g. autism, Asperger's syndrome)	22	38	40	997	815
Speech, language and communication needs	25	44	31	814	693
Social, emotional and mental health issues, including attention deficit hyperactive disorder (ADHD)	12	29	59	923	781
Physical disability (e.g. issues with movement or other functions that impact on day-to-day life, cerebral palsy)	46	31	23	122	86
Hearing impairment or deafness	20	39	41	96	82
Visual impairment or blindness	32	35	33	79	57
Multi-sensory impairment (i.e. hearing and visual impairment)	29	38	33	114	89
Specific learning difficulty (e.g. dyslexia, dyspraxia)	12	33	55	227	204
Moderate learning difficulties (e.g. basic literacy and numeracy skills, speech and language delay, problems concentrating, under-developed social, emotional and personal skills)	22	38	40	452	375
Severe learning difficulties (incl. having little or no speech, needing support with daily activities, needing life-long support)	59	34	7	189	137
Profound and multiple learning difficulties (PMLD)	[56]	[28]	[16]	42	25
Not sure - No diagnosis yet	4	21	75	201	180
Any SEN	17	35	48	1,607	1,358
No SEN	<1	4	96	6,750	7,022

More than one category could be selected. Brackets [] indicate base of <50.

Base: All year 1 children with specific needs as identified by the main informant parent

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Table 6: Types of SEN type reported by main informant, by NPD SEN type

SEN type reported by main informant	Autism	Speech, language and communication needs	Social, emotional and mental health issues (including ADHD)	Physical disability	Hearing impairment or deafness	Visual impairment or blindness	Multi-sensory impairment	Specific learning difficulty (e.g. dyslexia, dyspraxia)	Moderate learning difficulties	Severe learning difficulties	Profound and multiple learning difficulties	Not sure – No diagnosis yet	Other	No SEN	Unweighted Base	Weighted Base
Total reported by main informant (%)	9	8	9	1	1	1	1	2	4	2	<1	2	<1	81	8,625	8,626
NPD record: No SEN (%)	4	3	6	<1	<1	<1	<1	1	2	<1	<1	2	<1	89	7,397	7,608
NPD record: Cognition and Learning (%)	54	63	24	22	10	8	12	10	41	29	7	3	<1	15	133	93
NPD record: Communication and interaction (%)	39	46	27	3	3	2	4	9	19	9	2	4	1	36	655	560
NPD record: Social, emotional, mental (%)	48	25	50	1	3	4	5	9	18	4	<1	10	3	24	145	121
NPD record: Physical and sensory need (%)	17	45	18	21	29	20	5	9	17	11	4	1	1	30	65	53
NPD record: Autism (%)	94	65	43	9	4	2	11	9	29	25	2	2	2	3	171	141
NPD record: Other (%)	42	33	36	3	-	3	3	11	22	6	1	8	5	31	59	50

More than one category could be selected. Base: All year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

2.3.4 Health behaviours

2.3.4.1 Demographic differences in child's health behaviours

Exercise

The NHS recommends that children and young people aged 5 to 18 should aim for an average of at least 60 minutes of moderate or vigorous intensity physical activity per day across the week, whereas children with a disability should aim for 20 minutes of physical activity a day (NHS, 2024).

The study asked the main informant how often their child exercised for at least 30 minutes, excluding PE lessons, in the last 7 days. This included physical activities such as riding a bike, playing football, swimming or going for a walk. Thirty-seven per cent of children exercised every day, 25% exercised on 4-6 days a week, 33% on 1-3 days, and 15% did not do any 30-minute exercise activities in the previous 7 days (see Figure 4). There were large differences by children's SEN status, with 10% of children with SEN not exercising for 30 minutes in the last 7 days, compared with 4% of children with no SEN. Children with cognition and learning difficulties and those with autism had the lowest levels of exercise.

There were also pronounced differences by socio-economic variables, particularly main household income. There was a linear association between exercise and income, with children from higher income households exercising more frequently than children from lower income households. The relationship between children's exercise and main household parental education was not as linear. The differences were mainly between children whose co-resident parents/carers had no academic qualifications having the lowest levels of exercise (e.g. 12% did not do any 30 minute exercise activities in the last 7 days) and children who had parents/carers educated at A level and above having the highest levels (e.g. 3–4% did not exercise in the last 7 days). The pattern of differences between children eligible for FSM and those not eligible was similar but less pronounced. There was a small association with gender, with boys exercising somewhat more frequently than girls.

Bedtime

Over one-half of children in the study (54%) always had a regular bedtime, one-third (33%) had it usually, 9% had it sometimes, and 4% had it never or almost never (see Figure 5). Children with SEN were less likely to have a regular bedtime than those with no SEN: 10% of children with SEN never had a regular bedtime and another 14% sometimes had a regular bedtime, compared with 3% and 8% respectively for children with no SEN. Of those with SEN, children with autism were the least likely to have a regular bedtime. There was also a clear association with disadvantage, with children eligible for FSM (49%) being less likely to always have a regular bedtime than those not

eligible for FSM (55%). This pattern was evident in the distribution by household income as well, particularly in terms of differences between the lowest two income quintiles (£0 to £19,999 and £20,000 to £39,999) and the rest of the families (£40,000 and above). There were no differences between boys and girls.

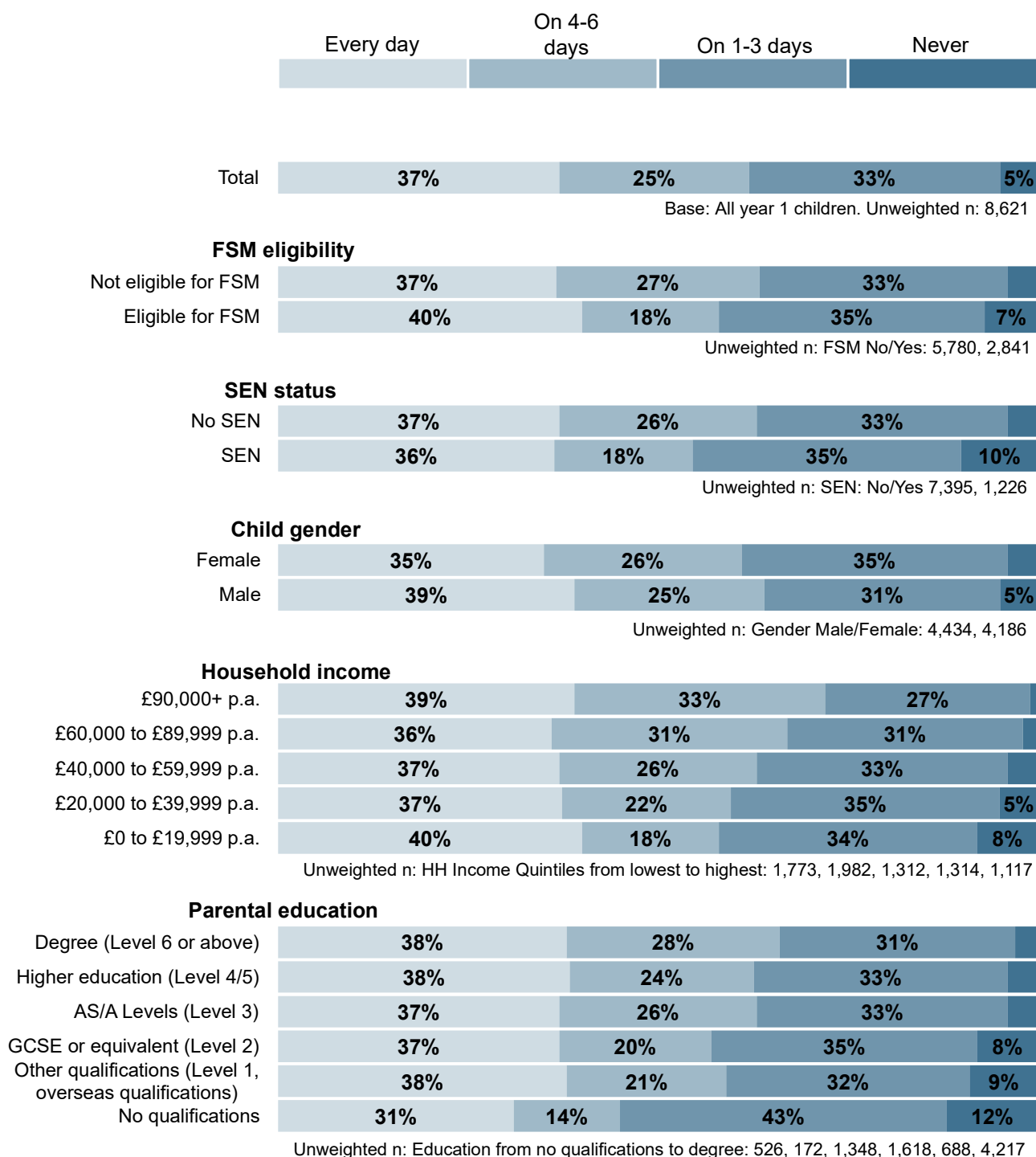
Sleeping

The study also asked the main informant about the time their child went to bed on a school night and the time when they woke up, so that total sleep duration could be calculated. Most children slept at least 10 hours per night: 60% slept 10-11 hours and 32% slept over 11 hours. Eight per cent of children slept less than 10 hours (see Figure 6). Children with SEN slept less than those with no SEN: 18% of children with SEN slept less than 10 hours per night, compared with 7% of children with no SEN. There was also a difference by disadvantage: 13% of children eligible for FSM slept less than 10 hours per night compared with 7% of children who were not eligible for FSM. A similar pattern was evident in the relationship with household income. Boys slept somewhat less than girls.

Waking up

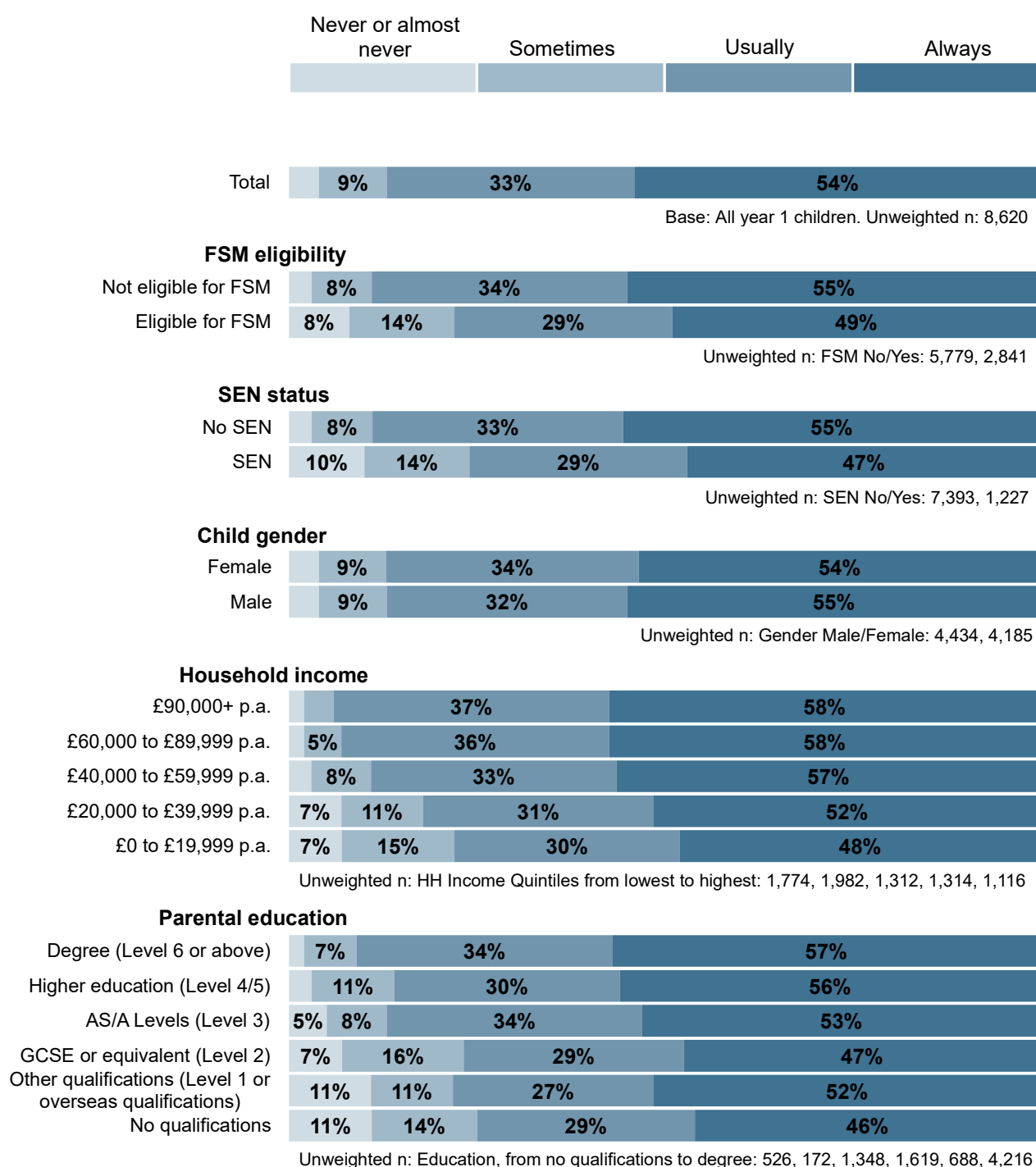
The NHS does not have specific guidelines for how much children of different ages should sleep, as sleep needs vary from child to child. The Five to Twelve study asked the main informant how easy or difficult it was for their child to wake up in the morning on weekdays during school term time, as a proxy measure of a child's sleep needs being met. Forty-eight per cent said it was very easy, 31% said it was fairly easy, 10% neither easy nor difficult, 8% fairly difficult and 3% very difficult (see Figure 7). Children eligible for FSM found it more difficult to wake up than children who were not eligible, according to the main informant. It was easier for boys to wake up than for girls: 51% of parents/carers of boys reported that it was very easy for their child to wake up, compared with 45% of parents/carers of girls.

Figure 4: Frequency of exercise, by demographic characteristics



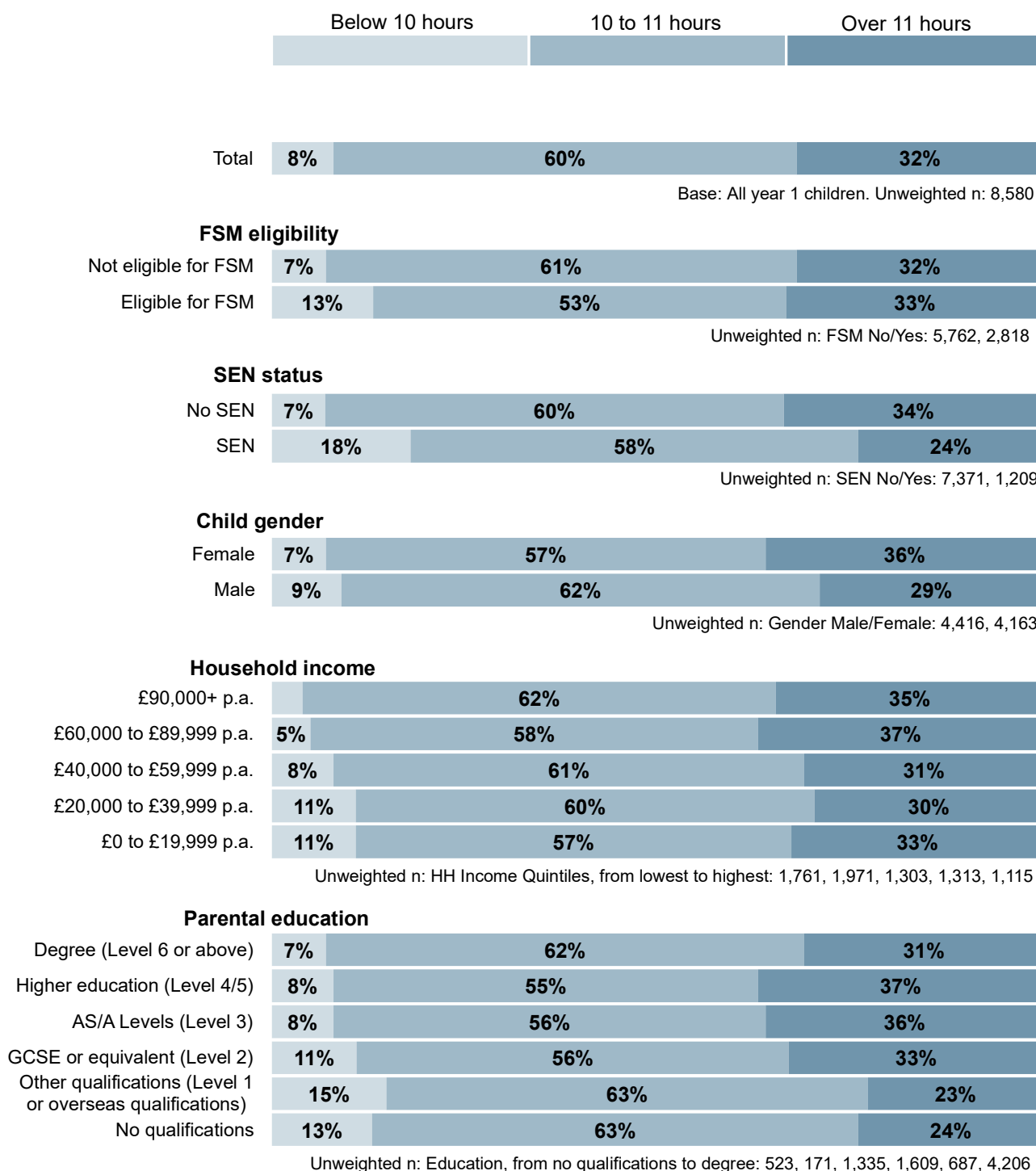
Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 5: Regular bedtime, by demographic characteristics



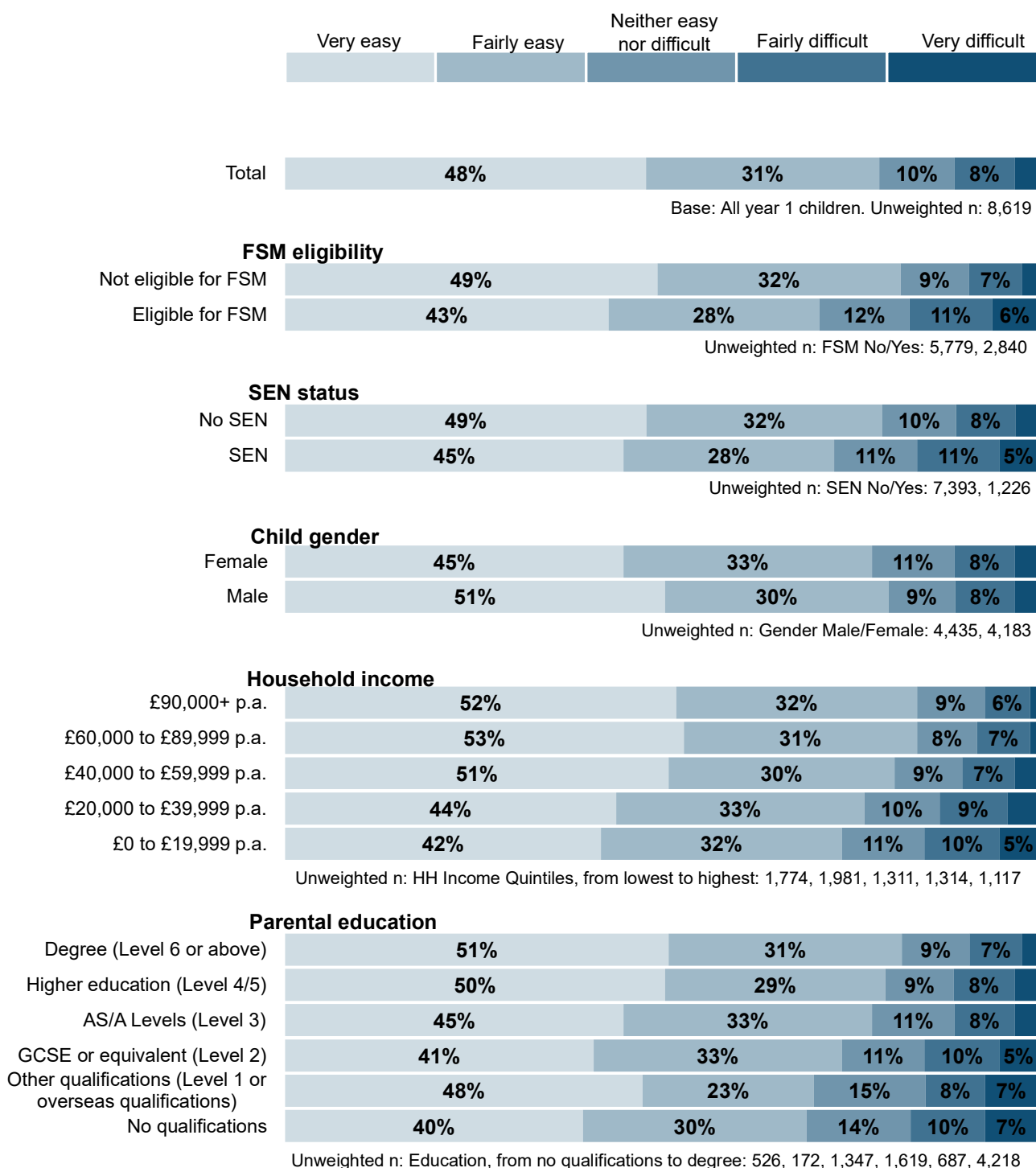
Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 6: Duration of sleep, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 7: Ease or difficulty for child to wake up, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

2.3.5 Physical development

2.3.5.1 Demographic differences in physical development

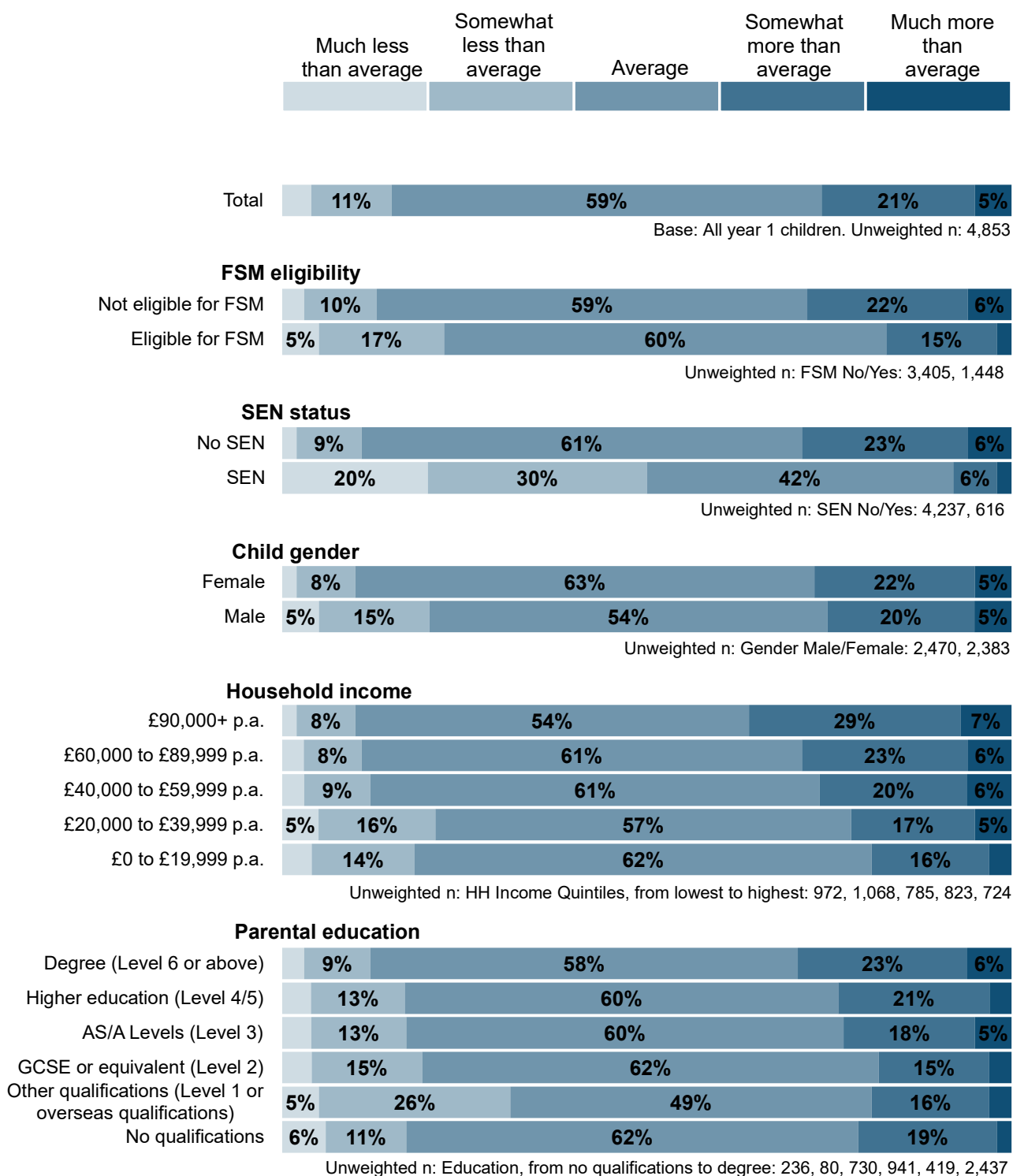
Questions about physical development were asked as part of the teacher survey. Teachers were asked to assess children's gross and fine motor skills, as these aspects of physical development had been found previously to affect cognitive development and educational attainment (Pitchford and others, 2016; Zhou and Tolmie, 2024). When assessing children's gross motor skills such as catching and throwing balls, showing good balance, and successfully negotiating space when playing running and chasing games, 59% of children were considered by their teachers to have average development, 15% were deemed to have lower than average development, and 26% higher than average development (see Figure 8).

Children with SEN were much more likely to have gross motor skills that were less developed than average: 20% of children in this group had the skills that were *much* less developed than average, and 30% had skills that were *somewhat* less developed than average, compared with 2% and 9% respectively for children with no SEN.

There was also a clear pattern of association with disadvantage. Twenty-two per cent of children eligible for FSM had less developed than average gross motor skills, compared with 13% of children not eligible for FSM. This pattern was evident in the relationship with income as well, with the most pronounced difference between children in families with household income below £40,000 and those in families whose income was higher. Boys were reported to have less developed gross motor skills than girls.

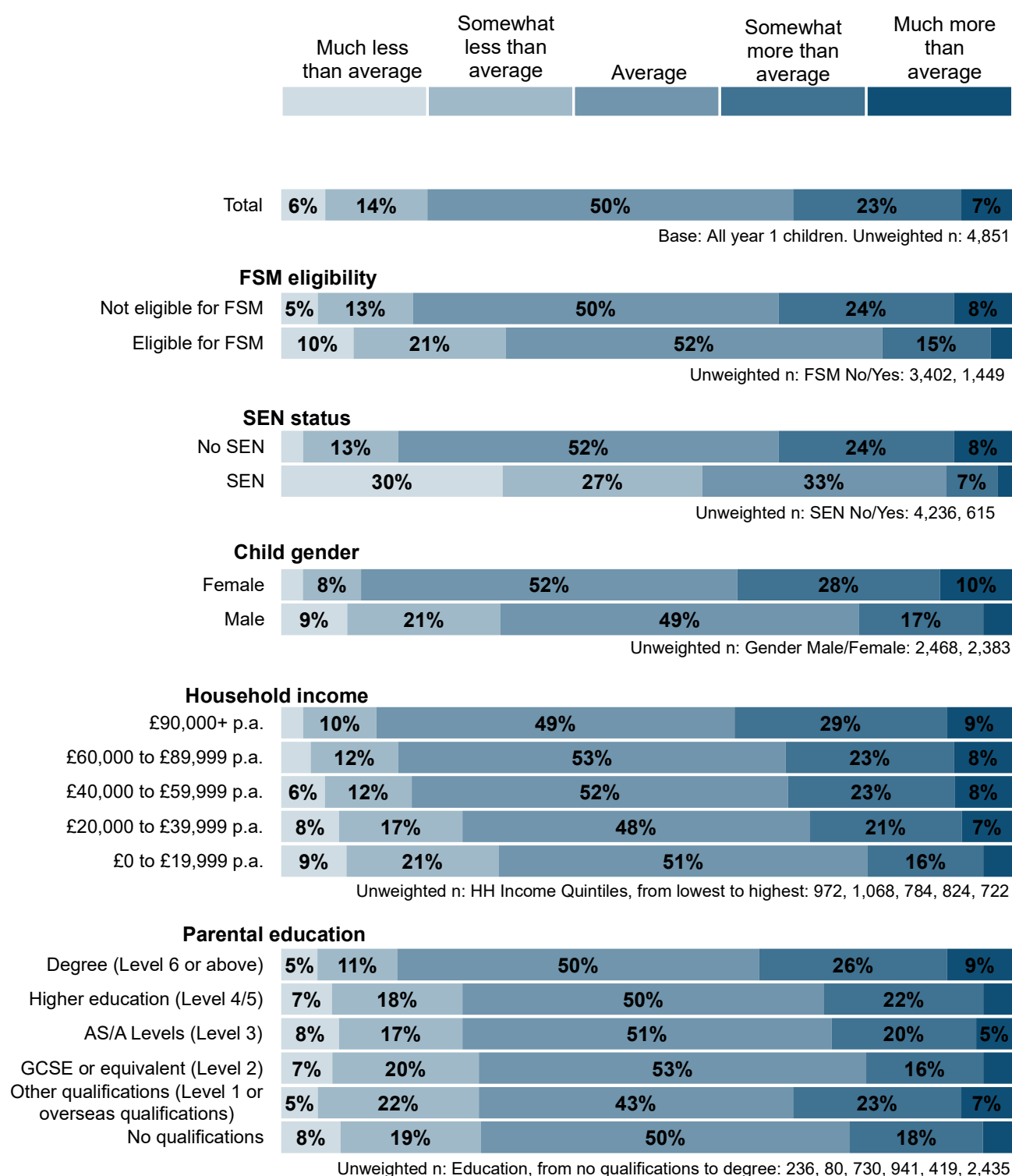
Regarding fine motor skills, such as using their hands to perform tasks, using writing and drawing tools effectively, and being able to use scissors to cut around a shape, 50% of children were considered by their teachers to have average development, 20% were developed less than average, and 30% more than average (see Figure 9). Differences by SEN status, FSM eligibility and socio-economic characteristics followed the same pattern as that found for gross motor skills, with children with SEN and from disadvantaged backgrounds having less developed fine motor skills compared with children with no SEN and from less disadvantaged families. Boys had less developed fine motor skills than girls.

Figure 8: Level of development of gross motor skills, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

Figure 9: Level of development of fine motor skills, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

2.3.6 Socio-emotional difficulties

2.3.6.1 Demographic differences in socio-emotional difficulties

The main informant was asked to complete the Strengths and Difficulties Questionnaire (SDQ) about the attitudes and behaviours of their child (Goodman and Goodman, 2009). Existing evidence suggests that the SDQ is a well validated measure for measuring the child's behaviour (Armitage and others, 2023). Responses to these questions were combined to create five domain specific scales, in line with the validated measure:

- emotional difficulties (worries, fears, feeling unhappy, nervousness)
- conduct difficulties (temper tantrums, fighting with other children, lying, stealing)
- hyperactivity (restlessness, fidgeting, being easily distracted)
- peer relationship problems (being solitary, friends, picked on by other children)
- prosocial behaviour (being considerate, sharing readily, helpfulness, kindness to younger children).

An overall score of children's total socio-emotional difficulties was also calculated from the first four scales. Children were grouped into those with typical, borderline and atypical scores (SDQ, 2024) for the analysis of differences by subgroups, with atypical scores indicating the highest levels of difficulties. See section 11.7 for children's scores on individual items and individual items broken down by FSM eligibility and SEN status.

On the total difficulties measure, 78% of children had typical scores, 8% borderline and 14% atypical (see Figure 10). There were large differences between subgroups. Forty-four per cent of children with SEN had atypical scores, compared with 10% of children with no SEN. Thirty per cent of children eligible for FSM had atypical scores, compared with 10% of children who were not eligible. There was a linear association with main household income, with children in the lowest household income quintile being the most likely to have atypical scores (23%) and children in the highest household income quintile being the least likely (5%). A similar relationship was evident with co-resident parental education. Boys were more likely to have atypical scores (17%) than girls (10%).

On the emotional difficulties measure, 79% of children had typical scores, 8% had borderline, and 13% had atypical scores, indicating the highest level of emotional difficulties (see Figure 11). The patterns of differences by SEN status and by disadvantage were similar to those for the total difficulties score but less pronounced. There were no differences between boys and girls.

On the conduct difficulties scale, 74% of children had typical scores, 13% had borderline and 13% had atypical scores (see Figure 12). There were similar differences by SEN status and socio-economic variables to those noted earlier. Boys were more likely to experience conduct difficulties (16% had atypical scores) than girls (11%).

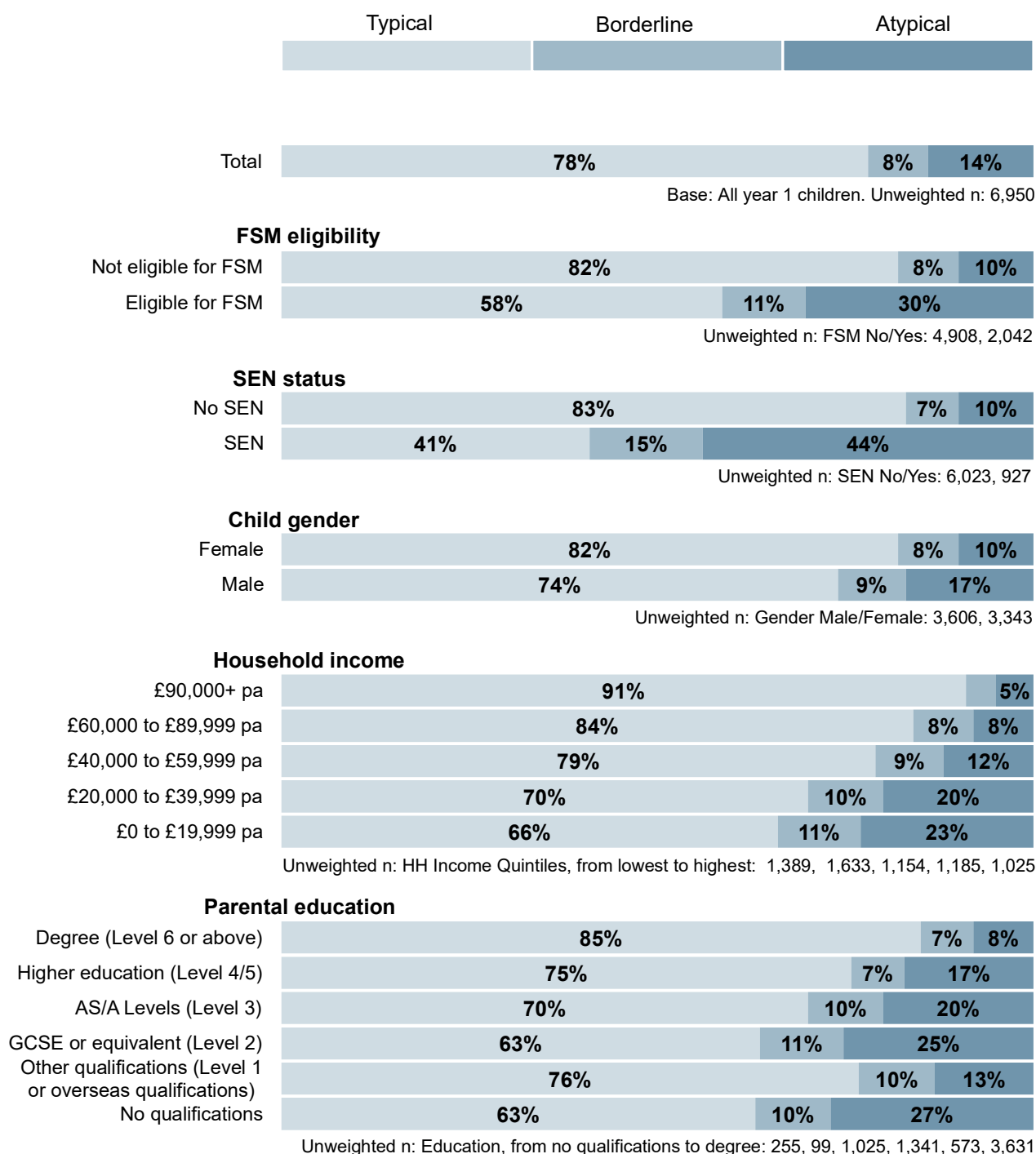
On the hyperactivity measure, 73% of children had typical scores, 7% had borderline and 20% had atypical scores (see Figure 13). There were large differences by SEN status, with 55% of children with SEN in the atypical category and showing the highest levels of hyperactivity, compared with 15% of children with no SEN. Differences by disadvantage were less pronounced. For example, 29% of children in the households in the lowest income quintile (£0-19,999) were in the atypical category, compared with 11% of children in the highest income group (£90,000+). Boys were more likely to exhibit hyperactivity behaviours than girls, with 25% of boys and 14% of girls in the atypical category.

On the peer relationship problems scale, 79% of children were in the typical scores category, 9% had borderline scores, and 12% had atypical scores, indicating the highest levels of peer problems (see Figure 14). Children with SEN were much more likely to have peer relationship problems (39% had atypical scores) than children with no SEN (9%). The degree of the differences varied by type of SEN, with children with autism having the highest levels of peer relationship difficulties (62% were in the atypical scores category) and children with physical and sensory special needs having the lowest levels (19%) among children with SEN. There was also an association with disadvantage. Among children eligible for FSM, 22% had atypical scores, compared with 10% among children not eligible for FSM. The relationship with household income was linear – the higher the household income, the less likely the child was to have atypical scores for peer relationship problems. Boys were more likely to have peer relationship problems than girls (15% of boys had atypical scores, compared with 9% of girls).

The prosocial behaviour scale (considerate, ready to share, helpful, kind to younger children) measured children's socio-emotional strengths, unlike the other four scales forming the SDQ (see Figure 15). The proportion of children with atypical scores (those with less prosocial behaviour) was 5%, 4% had borderline scores, and 91% had typical scores. Children with SEN were much more likely to have atypical scores (23%) than children with no SEN (3%), with children with autism being the most likely to have atypical scores on the prosocial behaviour scale (48%). Children eligible for FSM were more likely to have atypical scores (8%) than children who were not eligible (4%), although, on the whole, the association with socio-economic variables, such as main household income and co-resident parental education, was somewhat less pronounced than for the other scales forming SDQ. Boys showed less prosocial behaviours than girls.

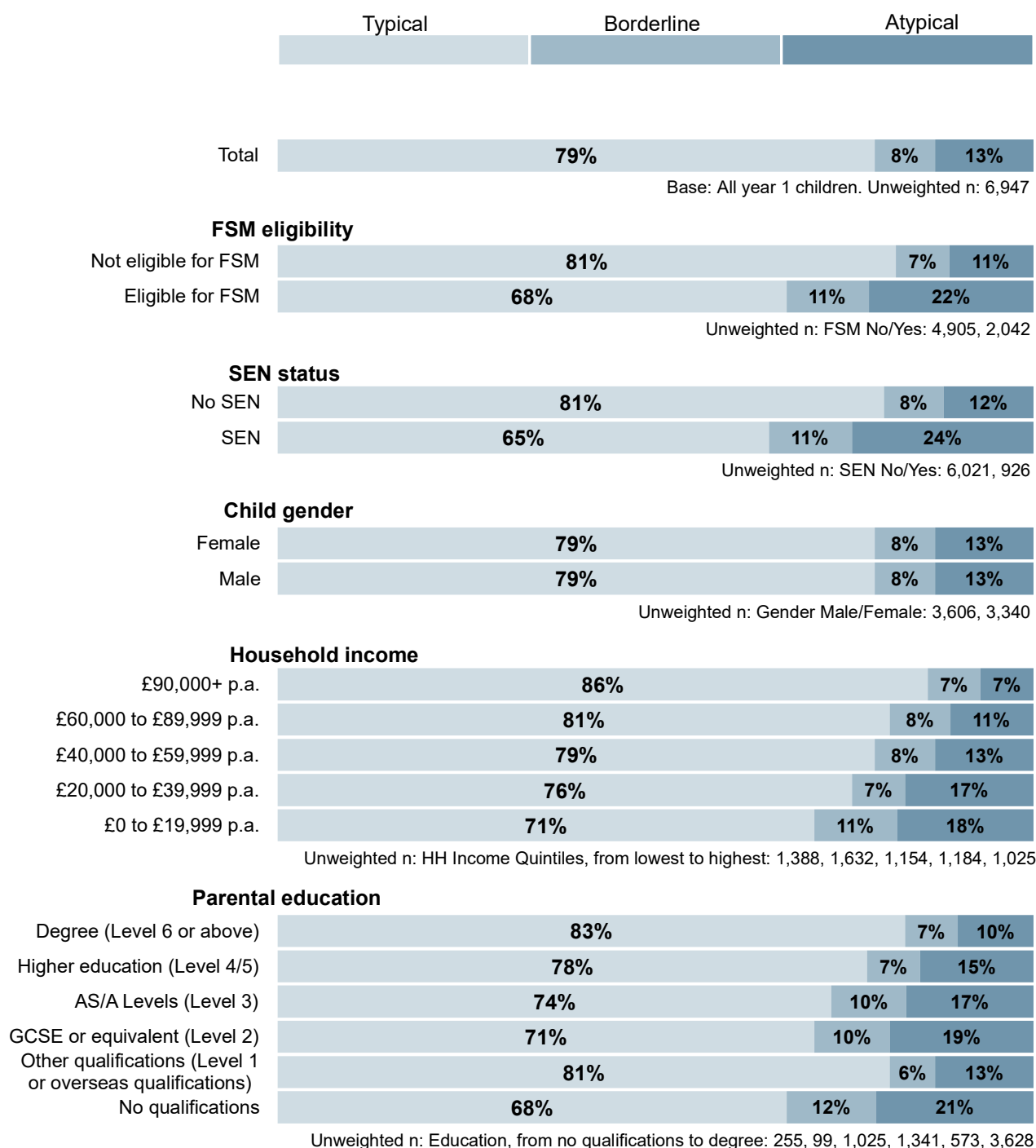
Multivariate analysis was conducted to indicate the level of association of demographic and socioeconomic factors with the SDQ total difficulties measure, independently from one another. In a model that included gender, FSM eligibility and parental education, this confirmed that boys and children eligible for FSM were more likely to score highly on the total difficulties scale, controlling for other factors. In contrast, children where the highest parental level of education was degree or above were less likely to score highly on the total difficulties scale, controlling for other factors. See section 11.10 for the multivariate analysis table output.

Figure 10: Banded total difficulties scores, by demographic characteristics



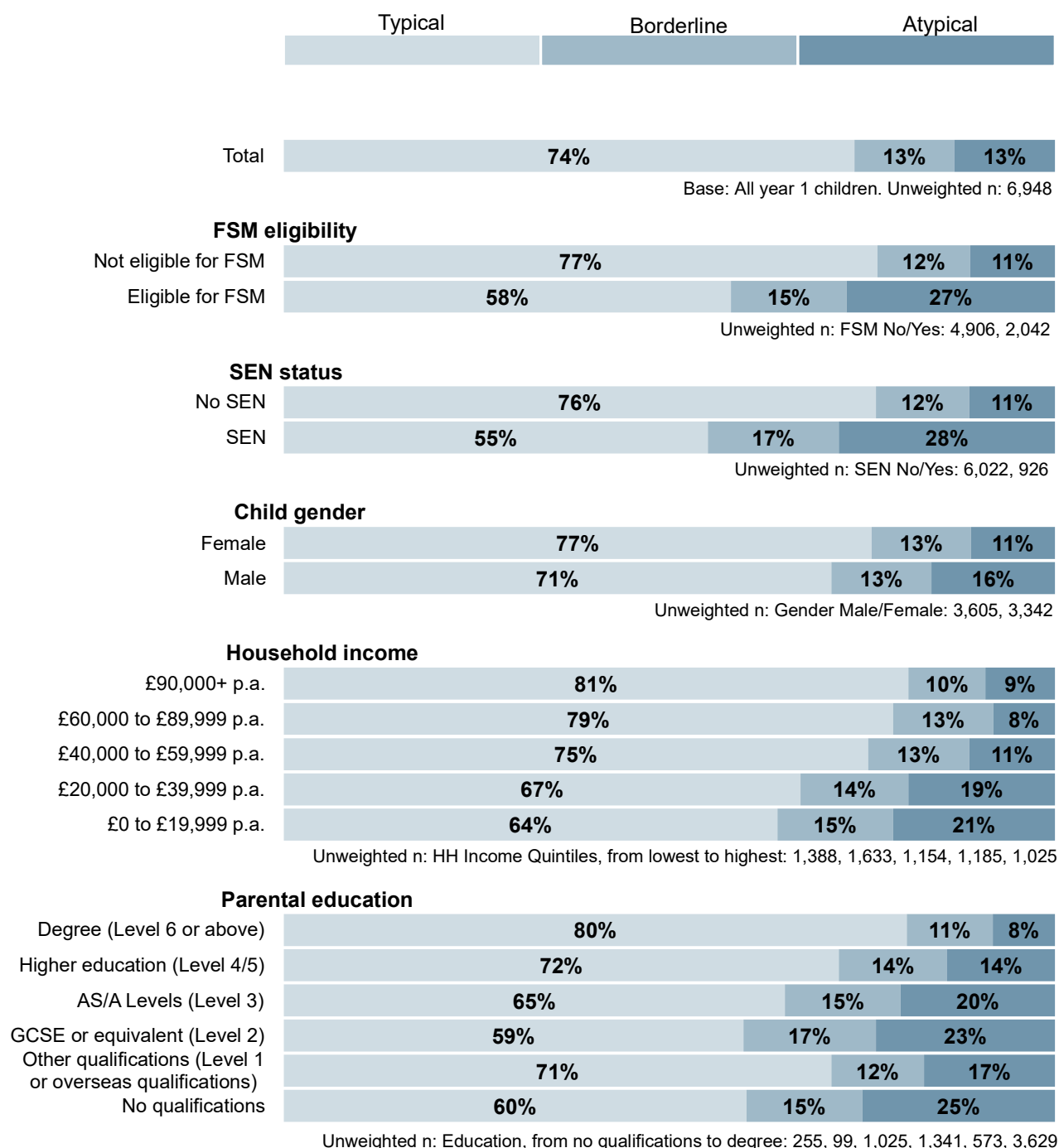
Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 11: Banded emotional difficulties scores, by demographic characteristics



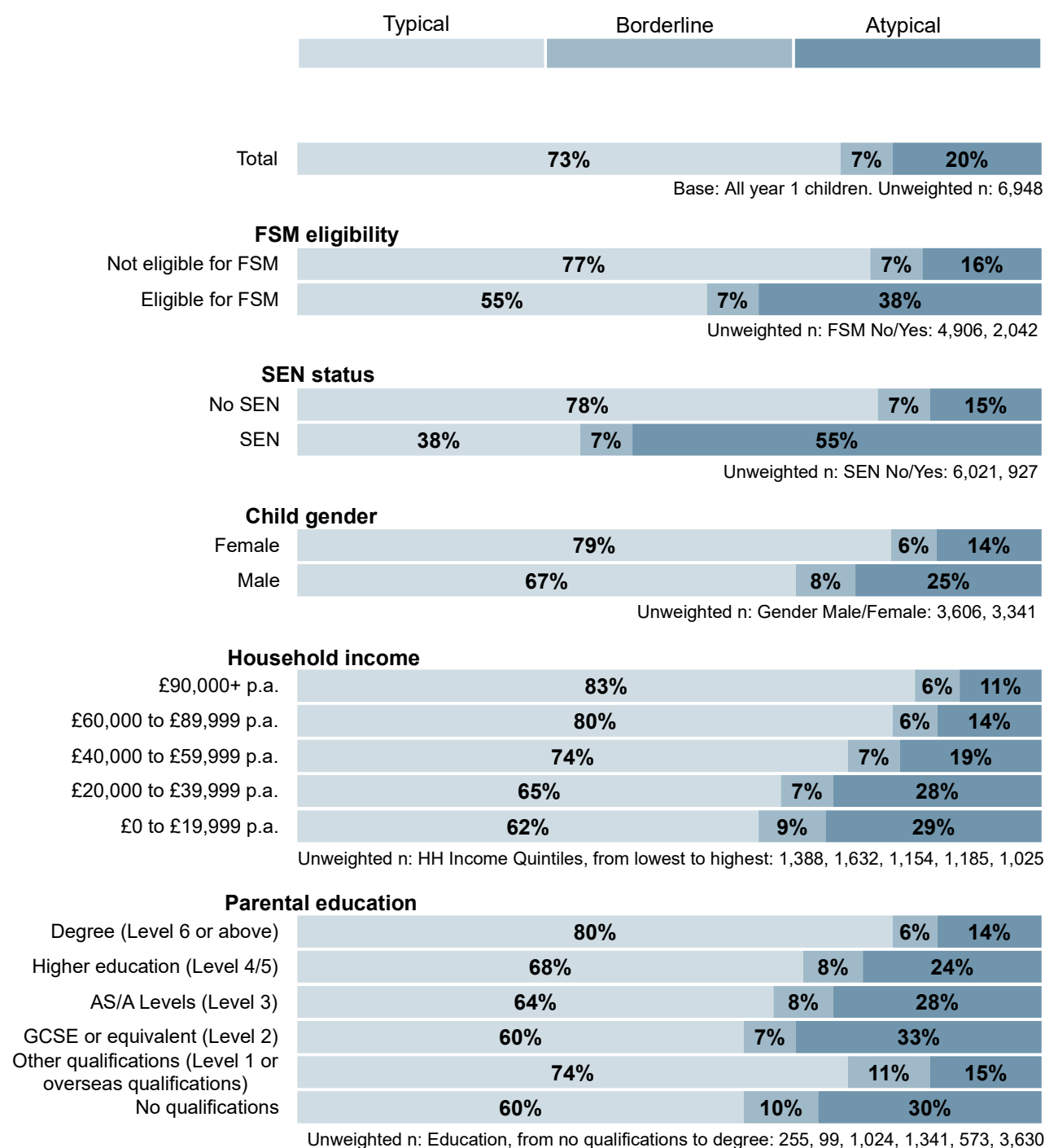
Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 12: Banded conduct difficulties scores, by demographic characteristics



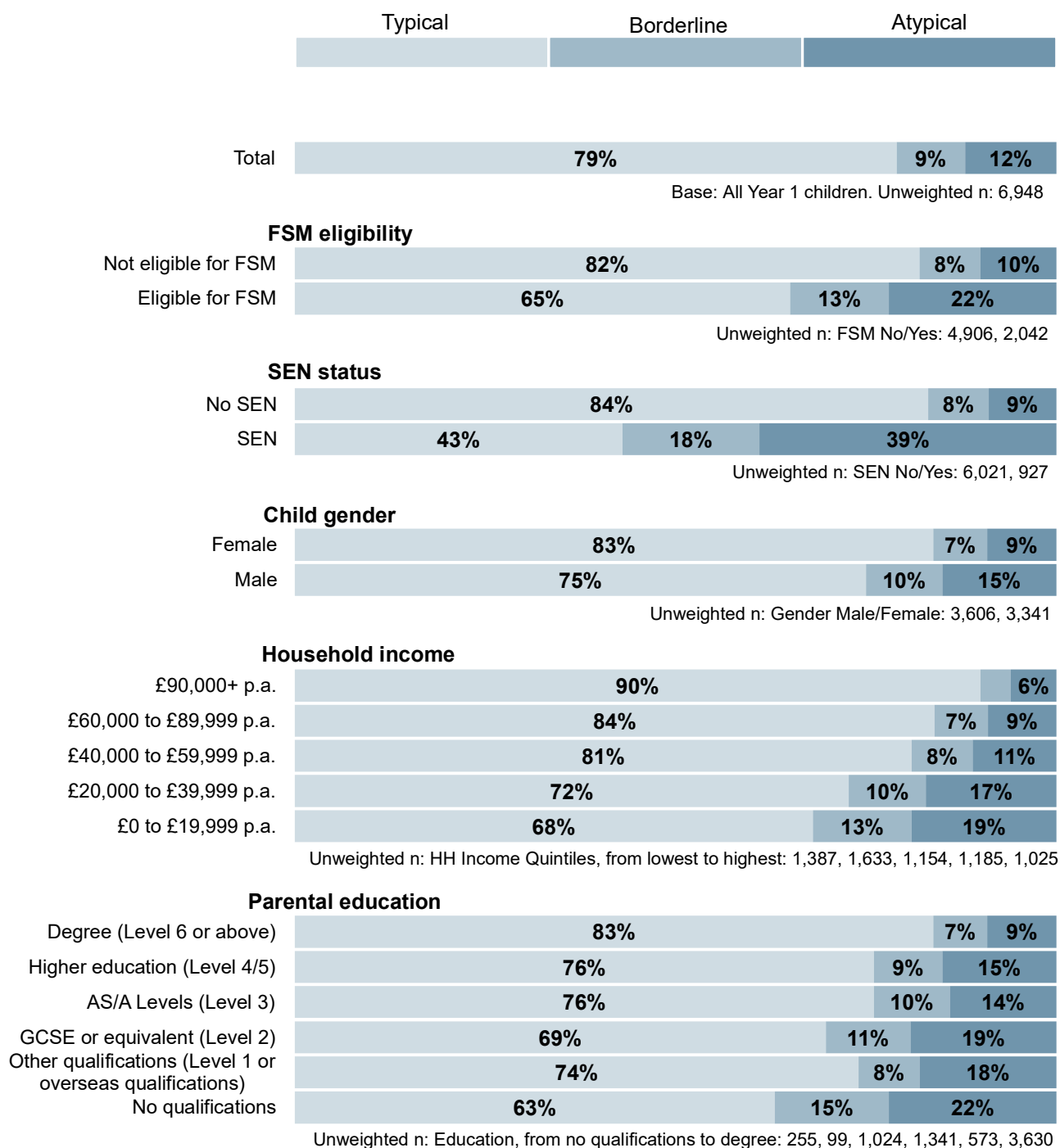
Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 13: Banded hyperactivity scores, by demographic characteristics



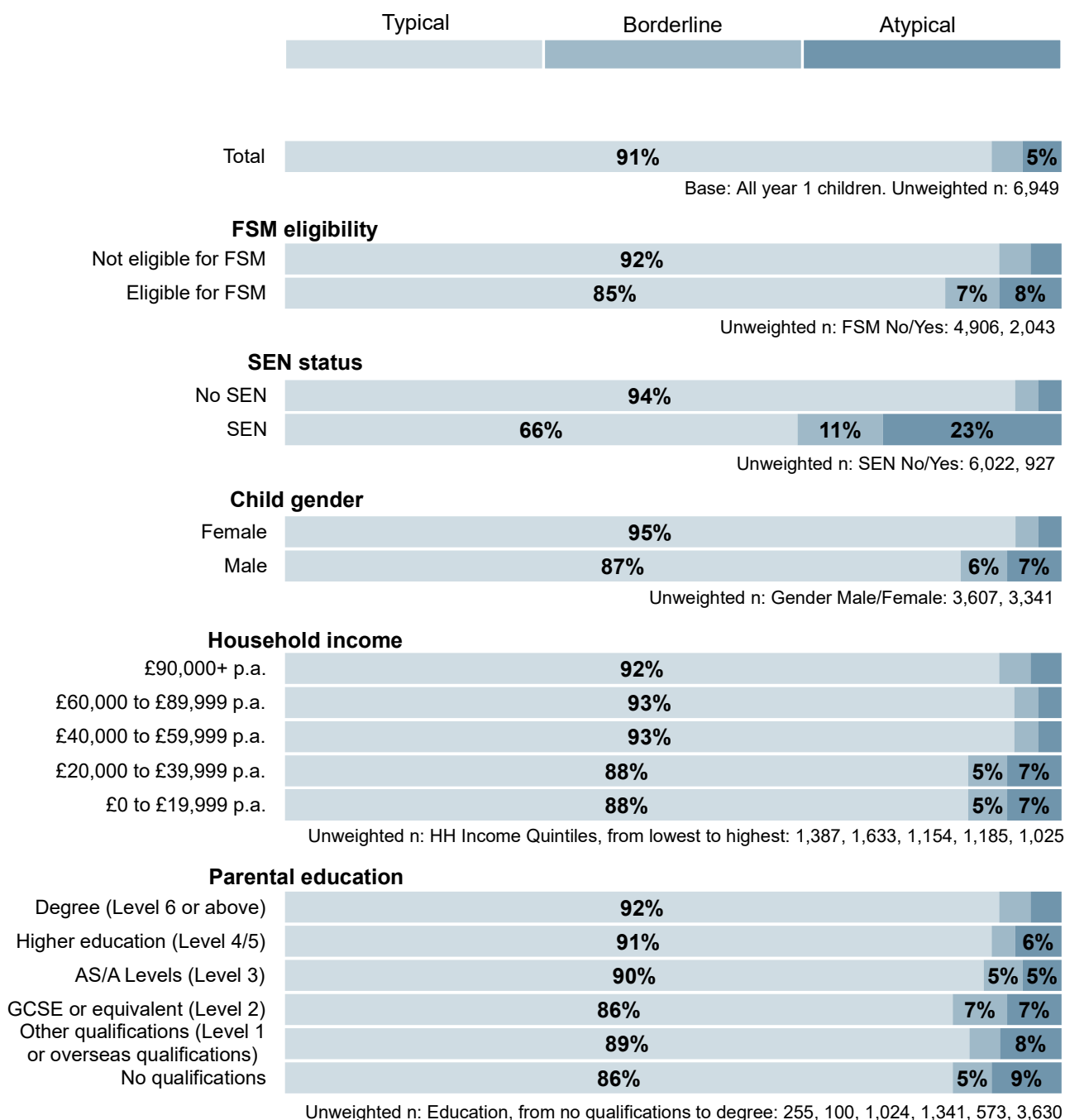
Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 14: Banded peer relationship problems scores, by demographic characteristics



Source: Five to Twelve Year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 15: Banded prosocial behaviour scores, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

2.3.7 Self-regulation

Data on how well children could regulate their cognitive processes, emotions and behaviour was collected in the teacher survey using the Child Self-Regulation and Behaviour Questionnaire (CSBQ), which is part of the Early Years Toolbox (Howard and Melhuish, 2016). Existing evidence suggests that the CSBQ is a well validated tool for measuring emotions and behaviour (Howard and Melhuish, 2016). Scores on three scales were calculated:

- cognitive self-regulation (persists with tasks, likes to work things out for self)
- emotional self-regulation (calm and easy going, keeps temper, does not show wide mood swings)
- behavioural self-regulation (good at following instructions, waits for their turn in activities).

A composite score based on the three self-regulation scales was also calculated. The scores for the four scales were then combined into quartiles. Lower quartiles indicate difficulties with self-regulation and higher quartiles indicate more developed self-regulation skills.

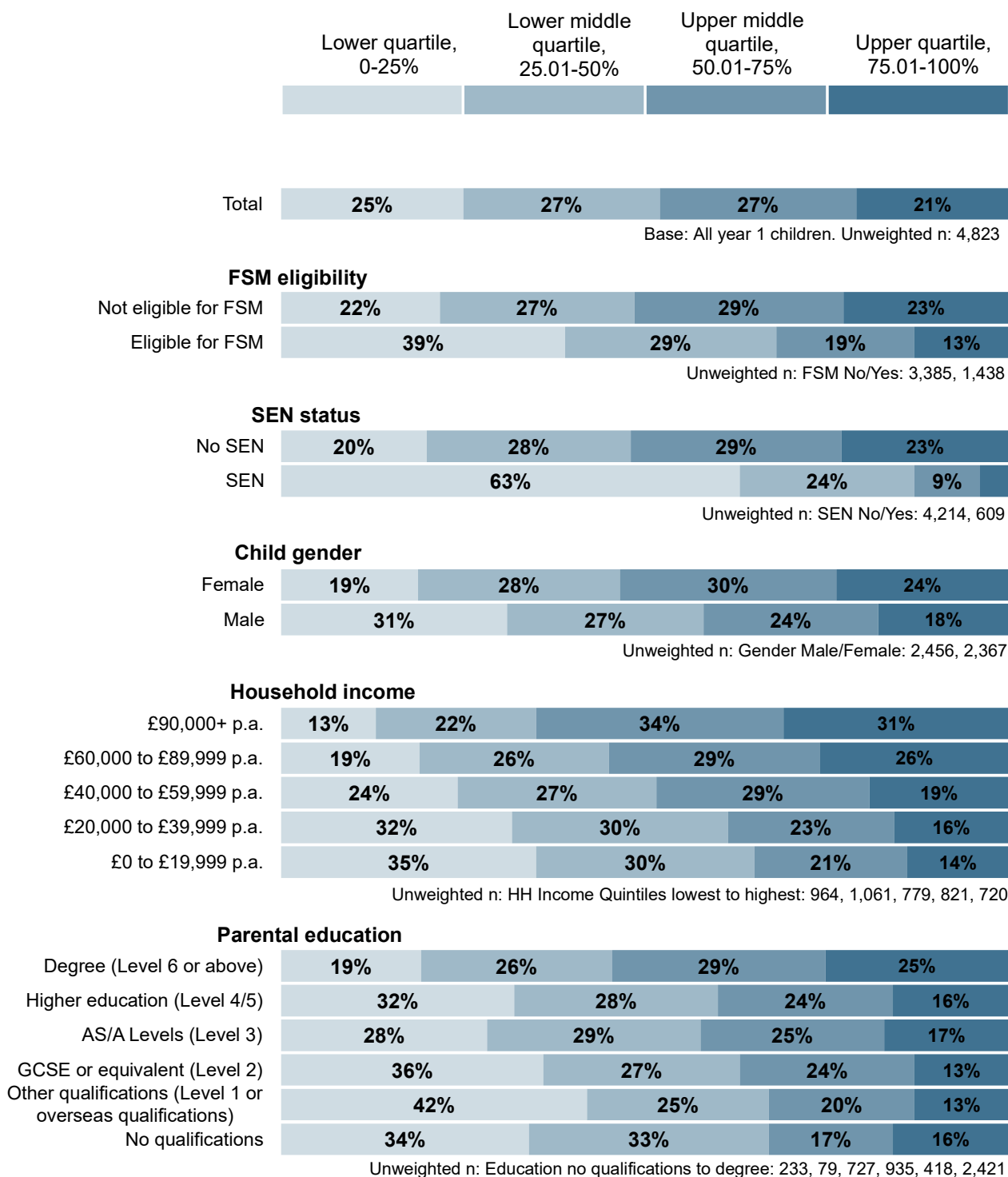
2.3.7.1 Demographic differences in self-regulation

Looking at cognitive self-regulation, there were differences between children with SEN and with no SEN. Just under two-thirds (63%) of children with SEN had cognitive self-regulation scores in the lower quartile, indicating the highest level of difficulties in this area. This compares with one-fifth (20%) of children with no SEN (see Figure 16). There were differences by disadvantage as well, with 39% of children eligible for FSM in the lower quartile, compared with 22% of children not eligible for FSM. Differences by household income followed a similar pattern. Boys had less developed cognitive self-regulation skills than girls, with 31% of boys in the lower quartile compared with 19% of girls.

The patterns of differences in emotional self-regulation scores between children in different subgroups were similar to those found for cognitive self-regulation (see Figure 17). Sixty-one per cent of children with SEN were in the lower quartile, indicating the highest levels of difficulties with regulating emotions, compared with 21% of children with no SEN. Just over one-third (34%) of children eligible for FSM were in the lower quartile, compared with 24% of children not eligible for FSM. Boys had greater difficulties with emotional self-regulation than girls (32% and 20% in the lower quartile, respectively).

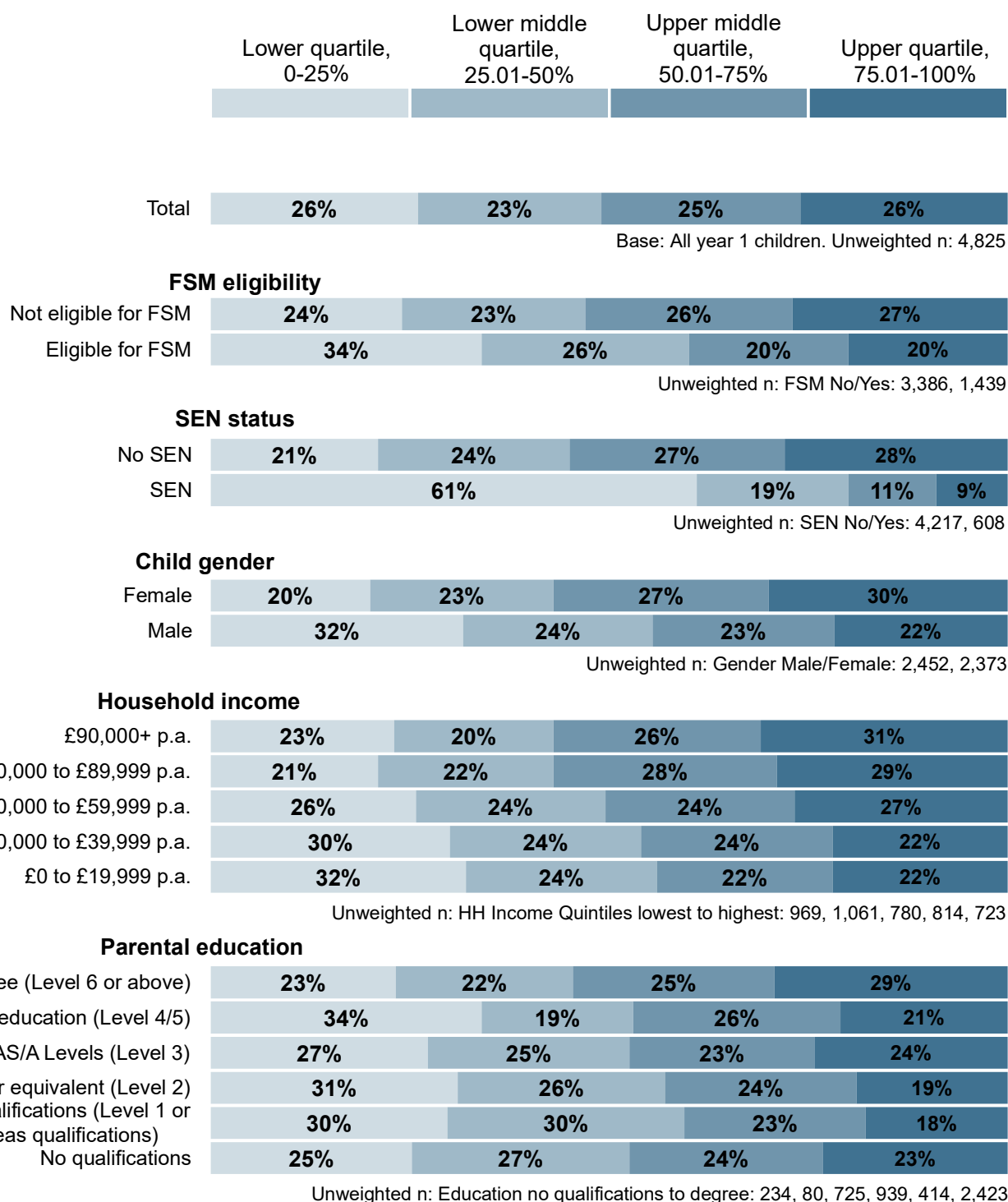
Similar patterns were again observed in the data on behavioural self-regulation. Sixty-three per cent of children with SEN were in the lower quartile, compared with 19% of children with no SEN, which is more than a three-fold difference (see Figure 18). There were differences by FSM eligibility and household income. For example, 31% of children

Figure 16: Cognitive self-regulation quartiles, by demographic characteristics



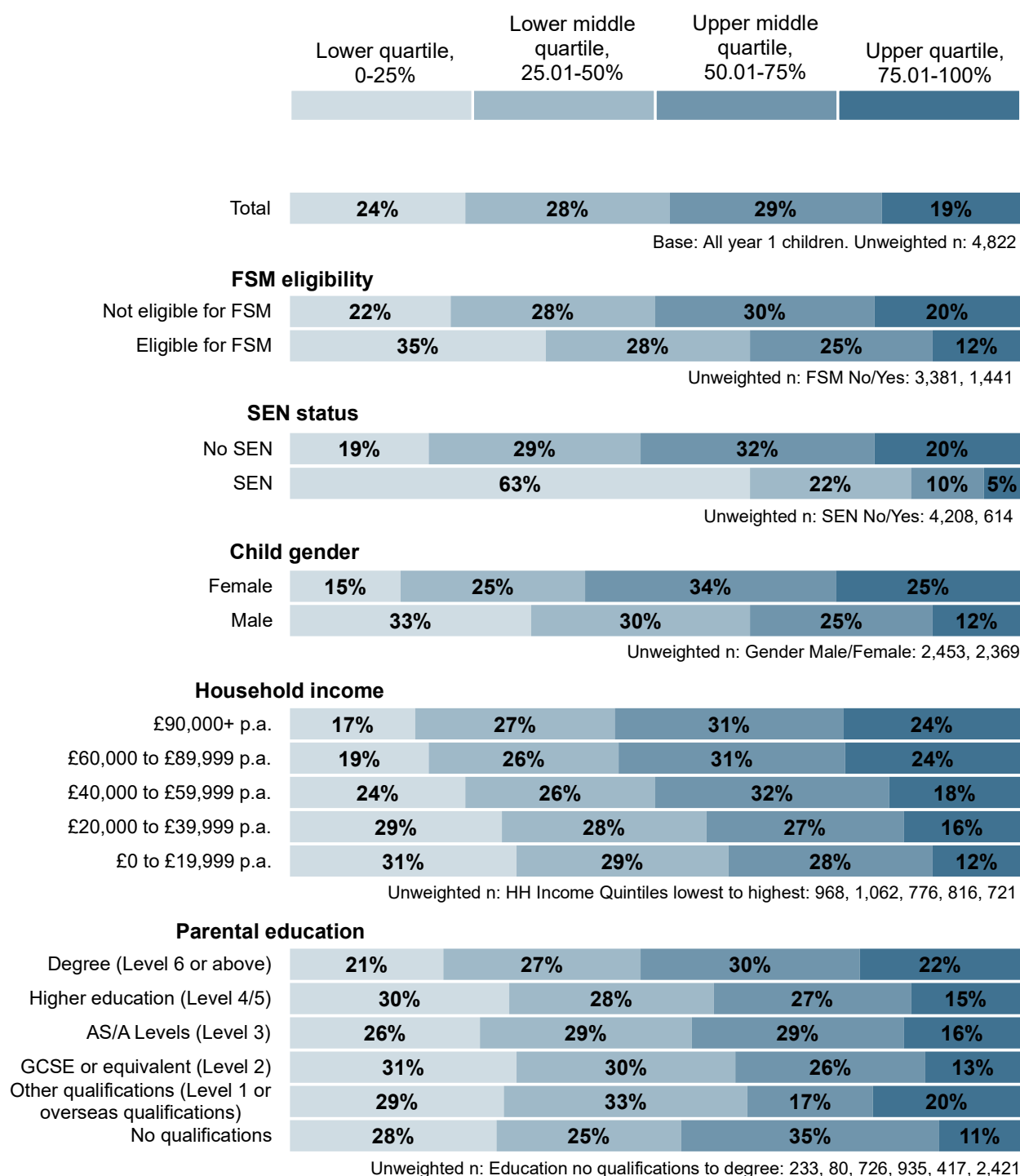
Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

Figure 17: Emotional self-regulation quartiles, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

Figure 18: Behavioural self-regulation quartiles, by demographic characteristics

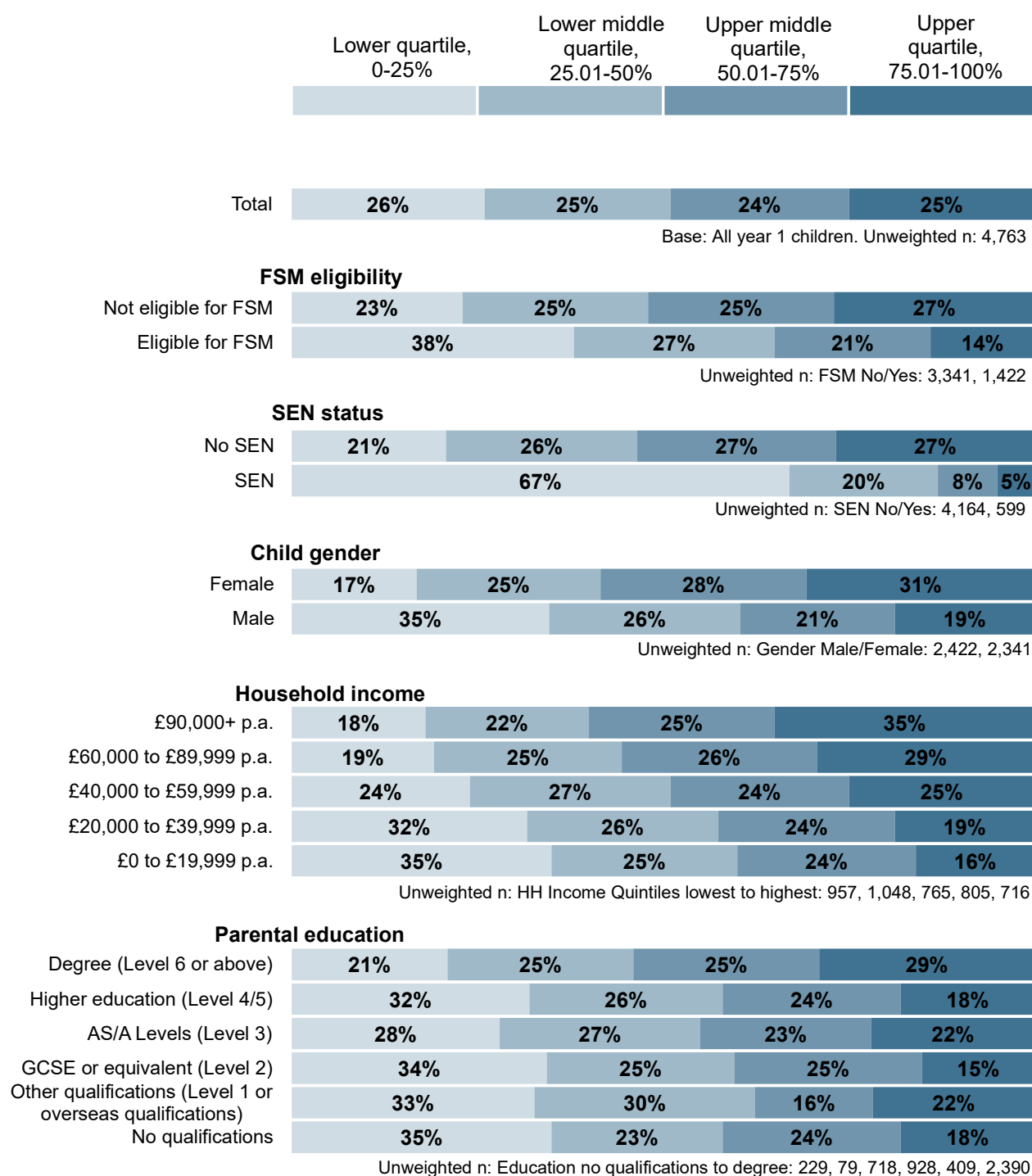


Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

in households with income of £0 to £19,999 per year were in the lower quartile for behavioural self-regulation, compared with 17% of children in households with income of £90,000 and higher. Boys were more likely to have difficulties with behavioural self-regulation than girls, with 33% of boys compared to 15% of girls in the lower quartile.

Figure 19 shows distributions of the composite self-regulation score, which was derived from scores for cognitive, emotional and behavioural self-regulation scales. The patterns of differences by SEN status, disadvantage and gender are similar to those found for the individual self-regulation scales. There was an association with co-resident parental education as well, although it is not as strong or as linear as the association with income. The highest percentages of children in the lower self-regulation quartile were among those whose co-resident parents did not have any formal qualifications (35%) or were educated at GCSE level or equivalent (34%), whereas the lowest percentage of children in the lower self-regulation quartile was among those whose parents were educated to the degree level or higher (21%).

Figure 19: Composite self-regulation quartiles, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

2.4 Summary

This chapter explored the characteristics of the cohort child in year 1 of the Five to Twelve study. The cohort were split half and half in terms of gender (49% female and 51% male). The majority were aged six (56%), were white British (62%) and born in the UK (93%). Eighteen per cent were eligible for FSM. Those eligible for SEN, on lower household income, no parental qualifications and ethnicity recorded as Arab were more likely to be eligible for FSM compared to their counterparts. FSM eligibility does not fully capture children living in poverty (i.e. lower household income) as around one-fifth of main households with an income of over £20,000 were eligible for FSM, according to NPD data.

The average birth weight of the cohort was 3,281 grams, 10% of the cohort had a low birth weight and 11% had a large gestational age (LGA). Children with SEN were more likely to have a low birth weight and boys were more likely to be LGA.

Over one-third (36%) of children in the cohort had ever experienced a serious or longstanding health problems. For most of these children, this was related to a single health condition (58%). The most common health condition was breathing problems like asthma (10%) followed by allergies (8%) and eyesight problems (8%). Children eligible for FSM and with SEN had higher levels reporting a health condition.

According to NPD data, 12% of year 1 children in this cohort were categorised as having SEN. Children eligible for FSM and boys were more likely to be recorded as having SEN in the NPD. Among main informants, 16% reported their child had SEN. However, these measures do not fully overlap: 8% of all year 1 children were identified as SEN on both the NPD and survey measures, meaning one-half (48%) of children identified by main informants as having SEN were not recorded as such in the NPD records and one-third (31%) of children recorded as having SEN on the NPD data were not reported as such by main informants. Most main informants of children with SEN had discussed their child's SEN with the school (94%). Where discussions were had about SEN or difficulties more generally, two-thirds of main informants reported that their child had received support at school; this level was higher for specific types of SEN.

In relation to health behaviours, 37% of children exercised every day and 54% always had a regular bedtime. The majority slept at least 10 hours per night and found it easy to wake up in the morning. Children with SEN were more likely to not exercise, not have a regular bedtime and sleep less compared to children with no SEN. Children eligible for FSM and from households with a lower income engaged in less exercise, were less likely to have a regular bedtime, slept less and found it harder to wake up in the morning.

As part of the teacher survey, teachers were asked about the children's gross and fine motor skills. Most children were reported to have good gross motor skills and fine motor skills. In both skills, a similar pattern emerged between disadvantage and physical motor

skills. Children with SEN, eligible for FSM, boys and lower household income had less developed physical motor skills compared to their counterparts.

The main informant was asked about their child's emotions, tantrums, hyperactivity, relationships with peers and prosocial behaviour. The total difficulties measure, looking at all behaviour except prosocial behaviour, showed the majority of children (78%) had typical scores, 8% borderline and 14% atypical. Children with SEN, eligible for FSM, with lower household income and boys were more likely to have atypical scores compared to their counterparts, overall as well as in each of the five areas. Differences by household income and co-resident parental education were less pronounced when exploring hyperactivity and prosocial behaviour.

Teachers were asked to report on how well the cohort children could self-regulate their emotions and behaviours. This was analysed via three domains of self-regulation: cognitive, emotions and behaviour. A larger proportion of children with SEN, children eligible for FSM, children with lower household income and of boys had less developed self-regulation in all three areas compared to their counterparts.

3. Co-resident parents and main household

Key Findings:

- one-fifth (21%) of children in year 1 were living in a lone parent household, while 79% lived with two parents. One per cent lived with a family member but not with a birth or adoptive parent, and less than 1% lived with foster carers or were looked after. More than one-half (59%) of children eligible for free school meals (FSM) lived in lone parent households as did one-quarter (29%) of children with special educational needs (SEN). One-fifth (20%) of mothers were in lone parent households, compared to 2% of fathers.
- nearly 9 in 10 children (88%) were in households where at least one parent was in paid work. Work was less common for lone parents (57% compared to 96% of two-parent households). More than one-half (57%) of all children lived in main households with two parents in paid employment.
- over two-thirds of co-resident mothers (69%) were in paid work, with higher unemployment rates among those in the lowest income quintile and those with children eligible for FSM.
- a lower level of physical health among co-resident parents and carers was associated with FSM eligibility, lower household income, their child having SEN and lower parental education.
- experience of anxiety and depression among co-resident mothers and fathers was higher among those with a child with SEN, as well as those with a lower household income.
- overall, most co-resident mothers and fathers had an 'authoritative' parenting style, suggesting a warm, close relationship where rules are enforced. Co-resident mothers were somewhat more likely to score highly on this scale than co-resident fathers. About one-tenth of parents scored highly on the 'authoritarian' scale (strong rule-enforcement with less emphasis on warmth) and one-tenth also scored highly on the 'permissive' scale (warmth with less emphasis on rules).
- co-resident mothers with a child eligible for FSM and with SEN, and co-resident fathers of children eligible for FSM, were more likely to have higher permissive scores than their counterparts. Scores on the authoritarian scale were low across all groups; however, co-resident fathers with the lowest household incomes were more likely to have higher authoritarian scores compared to those with the highest.

3.1 Introduction

This chapter explores socio-demographics, household economic circumstances, parental wellbeing and parenting styles of co-resident parents in year 1. By co-resident parents, we refer to parents, including stepparents, residing in year 1 children's main households (where the child lives most of the time). The chapter makes use of data collected directly from both mothers and fathers in the household as part of the study. Demographics examined include household composition, age of mothers, fathers, and other parental carers living in the home, parental educational attainment, whether parents/carers were born in the United Kingdom and parental health and wellbeing. Socio-economic circumstances examined in the study include measures of financial security, employment status, income and benefits, housing, and languages spoken at home.

This chapter starts with a focus on family composition and household structure in the child's main household (the own household parent (OHP) family is described separately in section 4). Family structure is not highly relevant for children's educational outcomes after controlling for family poverty (Harland and others, 2024). However, there is some evidence of increased challenges to child outcomes in lone parent households (Jones and others, 2013), and in families affected by parental separation. Low-quality parental relationships, problems in parent-child relationships and loss of contact with a parent also present risks to child outcomes (Batcheler and others, 2022; Oliver and others, 2014). Maternal age at childbirth is also associated with child health and development outcomes (Duncan and others, 2018; Fergusson and Woodward, 1999). Evidence suggests that smaller numbers of older siblings is a protective factor in relation to educational outcomes (Jones and others, 2013; Washbrook and others, 2013).

This chapter also examines both maternal and paternal education. Parental education is a crucial factor in a child's academic success. There is a well-established association between maternal education and academic outcomes (Hartas, 2012; Harland and others, 2024), with some evidence suggesting it is twice as important as household income (Washbrook, 2013). Research comparing the impact of paternal and maternal education on child educational attainment found that fathers' education has a larger impact than mothers' (ONS, 2014).

Socioeconomic circumstances are highly relevant in the context of children's educational outcomes. Low socio-economic status has been linked to low academic attainment (Sutherland and Ilie, 2015). Research into the attainment gap between more and less disadvantaged pupils has highlighted that children with special educational needs (SEN) and disabilities seem to face more of a gap (Andrews, Robinson and Hutchinson, 2017). Household income significantly impacts academic outcomes, with poverty being associated with negative outcomes including lower performance in maths at KS1, cognitive ability, KS1 attainment (Jones, Gutman and Platt, 2013), and reading (Hartas, 2012). Housing tenure is also correlated with academic attainment. Evidence suggests that children living in socially rented or privately rented homes tend to perform lower

academically compared to the children of owner-occupiers (Parsons, Schoon and Vignoles, 2013).

In common with the rest of this report, all differences noted have been tested for statistical significance unless otherwise stated. Analysis is limited to the relationship between two variables and does not control for other factors. Please refer to the reporting conventions section (1.2.3) for more information.

3.2 Family composition in children's main household

Over three-quarters of children (78%) lived with two parents, while one-fifth (21%) were living in a lone parent household. One per cent lived with a family member but not with a birth or adoptive parent, and less than 1% lived with foster carers or were looked after. Children eligible for free school meals (FSM) were more likely to be in lone parent households (59% compared to 12% of those not eligible for FSM). Children eligible for FSM were more likely to have three or more siblings (44% compared to 27% of children not eligible for FSM) (see Table 7).

Table 7: Main household structure, by FSM eligibility

Household structure	Total (%)	Eligible for FSM (%)	Not eligible for FSM (%)
Lone parent: 1 child	6	13	4
Lone parent: 2 children	8	22	5
Lone parent: 3+ children	7	24	3
Two parents: 1 child	14	5	16
Two parents: 2 children	41	14	47
Two parents: 3+ children	23	20	24
Other family carer	1	2	<1
Foster care or looked after	<1	1	<1
<i>Unweighted Base</i>	<i>8,579</i>	<i>2,830</i>	<i>5,749</i>
<i>Weighted Base</i>	<i>8,578</i>	<i>1,540</i>	<i>7,038</i>

Base: All year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Three-quarters of children lived with their birth/adoptive mother and birth/adoptive father. Twenty per cent of children lived with their birth/adoptive mother only, with 1% of children living only with their birth/adoptive father. Two per cent of children lived with their mother and a stepfather/co-resident father figure (e.g. a mother's partner). Less than 1% of children lived with their birth/adoptive father and a stepmother/co-resident mother figure (e.g. father's partner). Less than 1% lived with parents in a same-sex couple.

The socio-economic advantages of two-parent households were apparent in the data. Lone parent households generally had lower income than two-parent households. This is in line with expectation, given the lower number of potential earners in the household. For example, of households where the annual income was over £90,000, 2% were lone parents. In contrast, lone parent households accounted for 59% of those who earned less than £20,000. Similarly, a larger proportion of households eligible for FSM were lone parents, compared to households not eligible for FSM (59% compared to 13%).

A larger proportion of households where the cohort member child was classified as having SEN were lone parent households, compared to those with no SEN (29% compared to 20%). This was also true for most groups once SEN was broken down into the different categories, except for physical and sensory need.

One-half of households (50%) had two children, 21% had three, and 20% had one child. Fewer than one in ten households had four or more children (7% had four children, 2% had five and less than 1% had 6 or more children). Households eligible for FSM were more likely to have four or more children: 19% of FSM-eligible households had four or more children, compared to 7% of households not eligible for FSM. Eighty-one per cent of children had siblings in the household.

3.3 Co-resident mothers

Findings relating to co-resident mothers and fathers are presented separately in this and later sections to provide clear discussion of the detail. The situation and experiences of mothers is presented first, with comparisons made in the section on fathers. Lesbian mothers are included within the analysis of mothers and gay fathers are included within the analysis of fathers. An important contextual difference between mothers and fathers was that one-fifth (20%) of all households were headed by lone parent co-resident mothers, compared to 1% of households which had a lone parent co-resident father.

3.3.1 Age

At the time of the survey interview, the most common age for co-resident mothers was between 35 and 44 (58%), followed by 25 to 34 (31%). Nine per cent of co-resident mothers were aged 45 and over and 2% were 25 years and under. Co-resident mothers of children eligible for FSM were more likely to be younger. Just under one-half of co-resident mothers eligible for FSM (45%) were aged between 25 and 34, and 6% were aged under 25. In contrast, 28% of mothers of children not eligible for FSM were aged between 25 and 34, and 1% were aged under 25. Co-resident mothers of children with SEN were also slightly younger, with 38% aged under 35, compared to 33% of co-resident mothers of a child with no SEN.

3.3.2 Education

Co-resident mothers were asked to report on their highest level of academic qualification. Forty-eight per cent had achieved degree level or above, roughly in line with census-based statistics, which show that 47% of women aged 35–49 in England and Wales are educated to degree level or above (ONS, 2025). Co-resident mothers in two-parent households (54%), those not eligible for FSM (54%) and those who did not have a child with SEN (50%) were more likely to have a degree qualification compared to lone parents (26%), those eligible for FSM (18%) and those with a child with no SEN (36%). In the highest household income quintile 82% had achieved a degree, compared to 22% in the lowest quintile.

Eight per cent of co-resident mothers completed higher education but below degree level, 20% achieved an A/AS level or equivalent, 16% GCSE or equivalent, and 6% had no recorded qualifications (see Table 8). Those eligible for FSM and in the lower income quintiles were more likely to be in these categories. For example, 13% of co-resident mothers in the lowest income quintile had no qualifications.

Table 8: Co-resident mothers' academic qualifications, by household structure

Co-resident mothers' academic qualifications	Total (%)	Lone parent (%)	Two parents (%)
No qualifications	6	11	5
Other qualifications (Level 1, overseas qualifications)	2	3	2
GCSE or equivalent (Level 2)	16	27	13
AS/A Levels (Level 3)	20	26	19
Higher education but below degree (Level 4/5)	8	8	7
Degree (Level 6 or above)	48	26	54
<i>Unweighted Base</i>	<i>7,970</i>	<i>2,203</i>	<i>5,605</i>
<i>Weighted Base</i>	<i>8,389</i>	<i>1,669</i>	<i>6,563</i>

Base: Co-resident mothers of year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

3.3.3 Main economic activity

Co-resident mothers were asked to report on their main activity at the time of the interview. Respondents could select multiple categories. Table 9 details the categories and the proportion of mothers in each category.

Over two-thirds of co-resident mothers (69%) were in paid work, with 3% on maternity leave. A further 23% were looking after the home. Seven per cent of co-resident mothers

were unemployed. Two per cent were in full time education, 2% were in part-time education, and 2% were permanently sick or disabled.

Levels of paid work were lower among lone parents (55% compared to 73% among mothers in two-parent households), and levels of unemployment were higher (15% compared to 5%).

Table 9: Co-resident mothers' working status, by household structure

Co-resident mothers' main activity	Total (%)	Lone parent (%)	Two parents (%)
In paid work (or away temporarily) for at least 10 hours in the week [In paid work]	69	55	73
On maternity, paternity or shared parental leave [In paid work]	3	1	4
In full-time education (not paid for by employer, including on vacation) [Education or training]	2	3	1
In part-time education [Education or training]	2	3	2
On government training or employment programme [Education or training]	<1	1	<1
Waiting to take up paid work, already accepted [Not in paid work]	1	1	1
Unemployed [Not in paid work]	7	15	5
Permanently sick or disabled [Not in paid work]	2	6	1
Wholly retired from work [Not in paid work]	<1	-	<1
Looking after the home [Not in paid work]	23	28	21
<i>Unweighted Base</i>	<i>8,002</i>	<i>2,220</i>	<i>5,616</i>
<i>Weighted Base</i>	<i>8,400</i>	<i>1,674</i>	<i>6,569</i>

Base: Co-resident mothers of year 1 children. Data with a '-' are missing for reasons of statistical disclosure control (SDC).

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Co-resident mothers in the lowest household income quintile were the most likely to be unemployed (20%) and were also more likely to be looking after the home (35%) than other co-resident mothers. In comparison, 3% of co-resident mothers in the middle household income quintile were unemployed and 15% were looking after the home. Of co-resident mothers in the highest income quintile, 1% were unemployed and 12% were looking after the home. Among co-resident mothers with children eligible for FSM, 20% were unemployed and 40% were looking after the home, compared to 4% and 19% in households not eligible for FSM.

Co-resident mothers of children with SEN had higher rates of unemployment (11%) and were more likely to be looking after the home (35%) compared to those of children with no SEN (6% and 21% respectively).

3.3.4 Whether born in UK

Sixty-nine per cent of co-resident mothers were born in the UK. This percentage varied by household income. In the highest income quintile, 76% were born in the UK, while 24% were not. In the lowest quintile, 68% were born in the UK and 32% were not.

3.4 Co-resident fathers

As noted above, 1% of households were headed by a lone parent co-resident father.

3.4.1 Age

Most co-resident fathers were aged 35 to 44 (61%). Eighteen per cent were aged under 35 and a further 18% were aged 45 to 54. Co-resident fathers were slightly older than co-resident mothers on average, only 8% of co-resident mothers were aged 45 to 54.

Co-resident fathers with children eligible for FSM were overall younger than those of children not eligible for FSM. Thirty-four per cent of co-resident fathers of children eligible for FSM were aged 25-34, double the share of those not eligible for FSM (16%). Co-resident fathers of children eligible for FSM were also more likely to be older compared to those not eligible for FSM: 8% of the former were over 55, compared to 2% of the latter.

3.4.2 Education

Co-resident fathers were asked to report on their highest academic qualification (see Table 10). See Table 8 for comparisons with co-resident mothers' academic qualifications. Forty-five per cent of co-resident fathers had a degree or above, 7% completed higher education but below degree level, 20% achieved an A level or equivalent, 19% a GCSE or equivalent, 2% another qualification and 6% had no recorded qualifications.

As expected, an association existed between household income and the highest level of education. Of co-resident fathers in the lowest household income quintile, 20% had no recorded qualification and 27% had a GCSE qualification. This is compared to co-resident fathers in the highest income quintile, of which 73% had a degree level or above qualification.

Table 10: Co-resident fathers' academic qualifications

Co-resident fathers' academic qualifications	Total (%)
No qualifications	6
Other qualifications (Level 1, overseas qualifications)	2
GCSE or equivalent (Level 2)	19
AS/A Levels (Level 3)	20
Higher education but below degree (Level 4/5)	7
Degree (Level 6 or above)	45
<i>Unweighted Base</i>	<i>3,916</i>
<i>Weighted Base</i>	<i>6,307</i>

Base: Co-resident fathers of year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

3.4.3 Main economic activity

Co-resident fathers were asked to report on their main activity. The majority were in paid work (92%) with less than 1% on paternity or shared parental leave (see Table 11). Ninety-five per cent of co-resident fathers whose children weren't eligible for FSM were in paid work compared to 59% whose child was eligible for FSM. Co-resident mothers were less likely to be in work overall (69% compared to 92%) but were more likely to be in single parent households where levels of paid work were lower overall.

Two per cent of co-resident fathers were unemployed, less than the 7% of co-resident mothers who were unemployed. Co-resident fathers of a child eligible for FSM were more likely to be unemployed (15%) compared to those not eligible for FSM (1%). Three per cent of co-resident fathers were looking after the home while not in paid work, compared with 23% of co-resident mothers.

3.4.4 Whether born in UK

Seventy per cent of co-resident fathers were born in the UK. In the highest household income quintile, 79% were born in the UK and 21% were not. In the lowest household income quintile, 57% of co-resident fathers were born in the UK while 43% were not.

Table 11: Co-resident fathers' working status

Co-resident fathers' main activity	Total (%)	Lone parent (%)	Two parents (%)
In paid work (or away temporarily) for at least 10 hours in the week [In paid work]	92	72	93
On maternity, paternity or shared parental leave [In paid work]	<1	2	<1
In full-time education (not paid for by employer, including on vacation) [Education or training]	<1	<1	<1
In part-time education [Education or training]	1	1	1
On government training or employment programme [Education or training]	1	<1	1
Waiting to take up paid work, already accepted [Not in paid work]	1	<1	1
Unemployed [Not in paid work]	2	12	2
Permanently sick or disabled [Not in paid work]	2	6	2
Wholly retired from work [Not in paid work]	<1	2	<1
Looking after the home [Not in paid work]	3	18	3
<i>Unweighted Base</i>	<i>4,185</i>	<i>336</i>	<i>3,777</i>
<i>Weighted Base</i>	<i>6,332</i>	<i>99</i>	<i>6,138</i>

Base: Co-resident fathers of year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

3.5 Main household demographics and socio-economic circumstances

3.5.1 Housing tenure

Forty-eight per cent of main households owned their homes with a mortgage. Twenty-two per cent privately rented, 10% rented through a local authority, and another 10% through a housing association. Those eligible for FSM were more likely to be in the rented sector (see Table 12).

Table 12: Housing tenure, by demographic characteristics

Housing Tenure	Eligible for FSM (%)	Not eligible for FSM (%)	Total (%)
Own outright	2	7	6
Own with a mortgage/loan	5	57	48
Part rent/part mortgage (shared equity)	1	1	1
Rent from local authority	29	6	10
Rent from Housing Association	29	6	10
Rent privately	30	20	22
Live with parents	2	<1	2
Live rent-free	1	<1	<1
Live with friends/ in hostel/ temporary accommodation	1	<1	<1
Military/ Army	-	<1	<1
Other	<1	<1	<1
<i>Unweighted Base</i>	<i>2,804</i>	<i>5,753</i>	<i>8,557</i>
<i>Weighted Base</i>	<i>1,528</i>	<i>7,039</i>	<i>8,567</i>

Base: all parents of year 1 children. Data with a '-' are missing for SDC reasons.

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

3.5.2 Main household working status

Overall, 88% of households had at least one parent or carer in paid work. The most common household working status was two parents in paid employment, representing just over one-half of households (57%) (see Table 13). Seventy-two per cent of households where the highest level of co-resident parental education was a degree had two parents in paid employment. Households in the top two household income quintiles were also, as expected, more likely than households in the lowest household income quintile to have two parents in paid employment (88% and 87% in the fifth and fourth quintiles, compared to 13% in the first quintile).

Eighteen per cent of households had two parents with one employed. A further 3% were two-parent households where neither was in paid employment.

Twenty-one per cent of households were lone parents. Twelve per cent of all households comprised a lone parent in paid employment, and 9% comprised a lone parent not in paid work. Therefore, just over one-half (57%) of lone parent households had paid work, compared to 96% of two-parent households (at least one parent in paid work).

Table 13: Main household working status

Main household working status	%
Two parents in household in paid in employment	57
Two parents in household, one in paid employment	18
Two parents in household, neither in paid employment	3
One parent in household, in paid employment	12
One parent in household, not in paid employment	9
Working household (net)	88
Non-working household (net)	12
<i>Unweighted Base</i>	<i>8,579</i>
<i>Weighted Base</i>	<i>8,590</i>

Base: all year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Around one-half (51%) of households eligible for FSM had paid work, compared with 96% of those not eligible for FSM.

Nearly all households where the highest education level was a degree had paid work (97%), compared to one-half (52%) of those without qualifications.

Of households with a child with SEN, 76% had paid work compared to 89% of households with a child with no SEN.

3.5.3 Gross income in main household

The main informant was asked to select one of 20 categories to represent their household income (from all sources, including benefits, before tax and other deductions).

Table 14 provides five collapsed categories and the proportion of households selecting each category.

Table 14: Income in main household

Main household income	Lone parent (%)	Two parents (%)	Total (%)
£0 - £19,999 pa	51	9	18
£20,000 - £39,999 pa	37	21	24
£40,000 - £59,999 pa	8	23	20
£60,000 - £89,999 pa	3	25	20
£90,000+ pa	1	22	18
<i>Unweighted Base</i>	<i>2,034</i>	<i>5,333</i>	<i>7,499</i>
<i>Weighted Base</i>	<i>1,558</i>	<i>5,866</i>	<i>7,535</i>

Base: all year 1 children where parent responded to question on income

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Eighteen per cent of households earned below £20,000, with 4% earning less than £10,000. Twenty-four per cent of households earned between £20,000 and £39,999, 20% earned £40,000 to £59,999, and a further 20% earned £60,000 to £89,999. Eighteen per cent earned above £90,000. As expected, there was an association between lowest household incomes and whether the family was eligible for FSM. Fifty-two per cent of those eligible for FSM earned under £20,000 while less than 1% earned above £90,000. In comparison, 11% of those not eligible for FSM earned under £20,000 and 21% earned over £90,000. Of those with a child with SEN, 27% earned under £20,000, a higher percentage than other income groups. Two parent households were more likely earn above £90,000.

3.5.4 Types of income and benefits in main household

The main informant was asked about sources of income and benefits received by their household. Respondents were provided with a multiple-choice list of categories, as outlined in Table 15.

Eighty-eight per cent of co-resident parents (main informant) reported that their household income came from earnings. Seventy per cent reported receiving money from Child Benefit and 29% from Universal Credit. Of those with a child eligible for FSM, 51% received earnings from employment, 88% received Child Benefit and 78% received Universal Credit. Of those whose child was not eligible for FSM, 96% received earnings from employment, 66% received Child Benefit and 19% received Universal Credit.

There were substantial differences between two-parent and lone parent households in the types of income, with lone parents being less likely to have income from earnings (57% compared to 96% of two-parent households). Lone parents were more likely to receive Child Benefit, Universal Credit, Child Tax Credit, Working Tax Credit, Income Support, Housing Benefit or Council Tax Support, Employment and Support Allowance, Disability Living Allowance, Personal Independence Payment and other state benefits than those in two-parent households (see Table 15).

3.5.5 Perceptions of financial wellbeing in main household

The main informant was asked about their household's current financial situation, including a question on how well they were managing financially these days. The answer options included:

- living comfortably
- doing alright
- just about getting by
- finding it quite difficult
- finding it very difficult

Table 15: Benefits received by children's main household

Benefits	Lone parent (%)	Two parents (%)	Total (%)
Earnings from employment or self-employment	57	96	88
Child Benefit	85	66	70
Universal Credit (UC)	74	17	29
Disability Living Allowance	15	7	9
Housing Benefit / Council Tax Support	23	3	7
Child maintenance from a former husband / wife / partner (including Child Support Agency grant)	22	2	7
Child Tax Credit	12	5	6
Personal Independence Payment (PIP)	8	4	5
Interest from savings and investments (e.g. stocks and shares)	1	5	4
Working Tax Credit	2	1	2
Income Support	4	<1	1
Employment and Support Allowance (ESA)	2	1	1
Other state benefits	2	1	1
Private or state pension	<1	1	1
Student grant	1	1	1
Other kinds of regular allowance from outside your household	2	1	1
Carers Allowance	2	1	1
Jobseeker's Allowance (JSA)	<1	<1	<1
Incapacity Benefit	<1	<1	<1
<i>Unweighted Base</i>	<i>2,266</i>	<i>5,918</i>	<i>8,341</i>
<i>Weighted Base</i>	<i>1,728</i>	<i>6,505</i>	<i>8,370</i>

Base: All year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Two-fifths (44%) answered that they were doing alright. Twenty-eight per cent reported they were living comfortably, 19% said they were just about getting by and 9% were finding it quite or very difficult.

Lower rates of living comfortably were observed among main households of children with SEN: 17% of families with a child with SEN were living comfortably, compared to 29% of families of a child with no SEN. A larger proportion of households reported living comfortably in the highest household income quintile (58%) compared to the lowest household income quintile (10%).

The main informant was also asked about their experience of four specific aspects of financial hardship in the last six months: not keeping up with bills and debt payments, cutting back on meals, not being able to afford school equipment (school uniform, PE kit,

shoes, school bag, stationery, and packed lunches) and not being able to heat their house. Ten per cent of people said they were not keeping up with bills. Ten per cent reported that they had had to cut size of meals or skip meals as there was not enough money for food. Fifteen per cent answered that they could not afford school essentials and 7% said that they could not always afford to heat their homes during the winter (see Table 16).

There was a strong association between these indicators of financial hardship and the study's other socioeconomic measures. Households where the child was eligible for FSM were more than twice as likely to have experienced not keeping up with bills and payments (21% compared to 8% of those not eligible for FSM). One-quarter (25%) of FSM-eligible households had experienced cutting meals and over one-third (34%) had been unable to afford school essentials. Similarly, those in the lowest household income quintiles were more likely to have experienced each of these financial hardships. In particular, 31% of those with a household income of less than £20,000 and 22% of those with household income of £20,000 to £39,999 answered that they could not afford school essentials, compared to 2% of households earning £90,000 or more.

Table 16: Proportion of households struggling to pay bills, skipping meals, unable to afford school items and unable to heat house, by FSM eligibility and SEN status

Financial difficulty	Unable to pay bills and debts	Had to skip meals	Could not afford school items	Unable to heat house	Any cuts made	Minimum unweighted base	Minimum weighted base
Total (%)	10	10	15	7	26	7,902	7,976
Eligible for FSM (%)	21	25	34	17	50	2,467	1,361
Not eligible for FSM (%)	8	7	11	5	21	5,435	6,614
SEN (%)	13	14	19	9	33	1,093	913
No SEN (%)	10	10	14	7	25	6,809	7,063

Base: All year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

3.5.6 Languages spoken in main household

DfE research has shown that attainment is slightly lower where English is not the first language for a child at home (Department for Education, 2022a). Five to Twelve collected data on whether English was the language usually spoken in the household. Seventy-one per cent of households only spoke English, while 26% spoke English and other languages. Three per cent did not speak English as the main language.

3.6 Co-resident parent/carers health and wellbeing

Parent and carer health and wellbeing are associated with childhood health and wellbeing, as well as educational attainment and outcomes in childhood. As well as self-reported parental health, findings in this chapter relate to the presence of long-term physical or mental health conditions among co-resident parents in the study. Parental mental health is also explored using standardised measures for anxiety and depression. Prevalence of smoking and drinking among co-resident parents in the study is also reported. Findings relating to measures of maternal and paternal health and wellbeing are reported separately.

Existing evidence points to a link between parental health and wellbeing, childhood educational attainment and additional childhood outcomes. Research has found that children living in households with experience of maternal depression were more likely to have experienced greater behavioural problems, which is associated with poorer attainment (Oliver and others, 2014). Research also suggests that experiencing parental mental illness, parental substance abuse and/or low family income negatively impacts attainment at school (Evans and others, 2020). Similarly, an umbrella review of systematic reviews and meta-analyses into the impact of paternal mental illness (PMI) on child development found a consistent and influential effect of PMI on child development, with greater need for research around the impact of paternal mental illness (Scarlett and others, 2024). Exposure to smoking is associated with early and growing disadvantage in achievements and early poor health at school age (Jackson and others, 2015).

3.6.1 Co-resident parental physical health

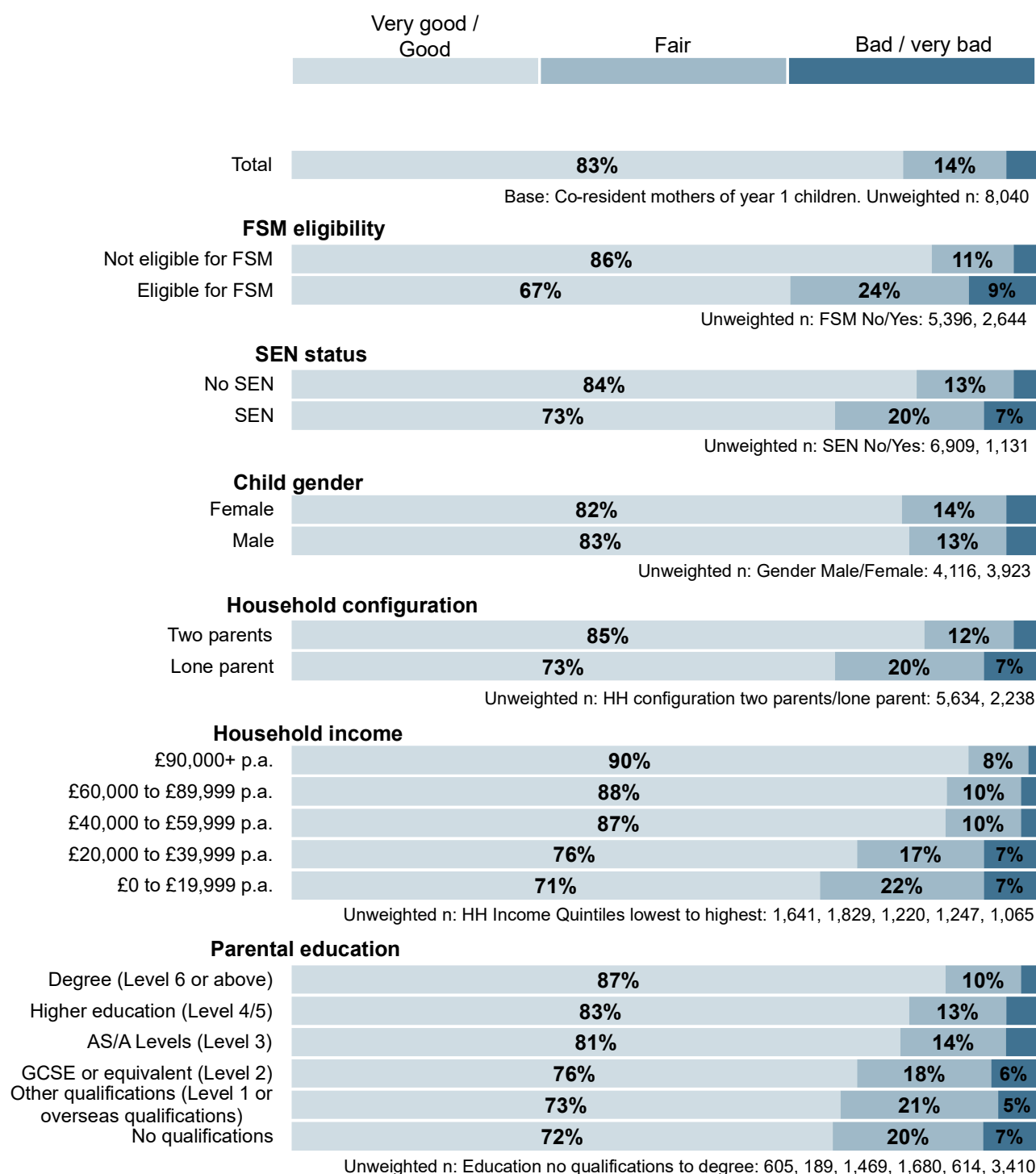
Co-resident mothers and fathers were asked to consider their physical health in general and report whether they had a physical or mental health condition or illness lasting, or expected to last, twelve months or more.

3.6.1.1 Co-resident maternal physical health

Over eight in ten (83%) co-resident mothers who were interviewed considered their health to be good (47%) or very good (36%). A further 14% considered their health to be fair, while a small proportion of those interviewed reported that their health was bad (3%) or very bad (1%) (see Figure 20).

Just over one-quarter (27%) of co-resident mothers reported having a physical or mental health condition or illness lasting, or expected to last, twelve months or more. Of co-resident mothers with a longstanding health condition, over six in ten (62%) reported that their condition or illness reduces their ability to carry out day-to-day activities either a little (44%) or a lot (18%).

Figure 20: Co-resident maternal physical health, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Findings relating to co-resident paternal physical health were similar to those for co-resident maternal physical health. Over eight in ten (83%) co-resident fathers considered their health to be good (49%) or very good (34%) in general. Just over one-tenth (14%) reported their health to be fair, while a small proportion reported that it was bad (3%) or very bad (<1%) (see Figure 21).

Almost one in five (19%) co-resident fathers reported having a physical or mental health condition or illness lasting, or expected to last, twelve months or more. Of co-resident fathers with a longstanding health condition, just under six in ten (58%) reported that their condition or illness reduces their ability to carry out day-to-day activities either a little (46%) or a lot (12%).

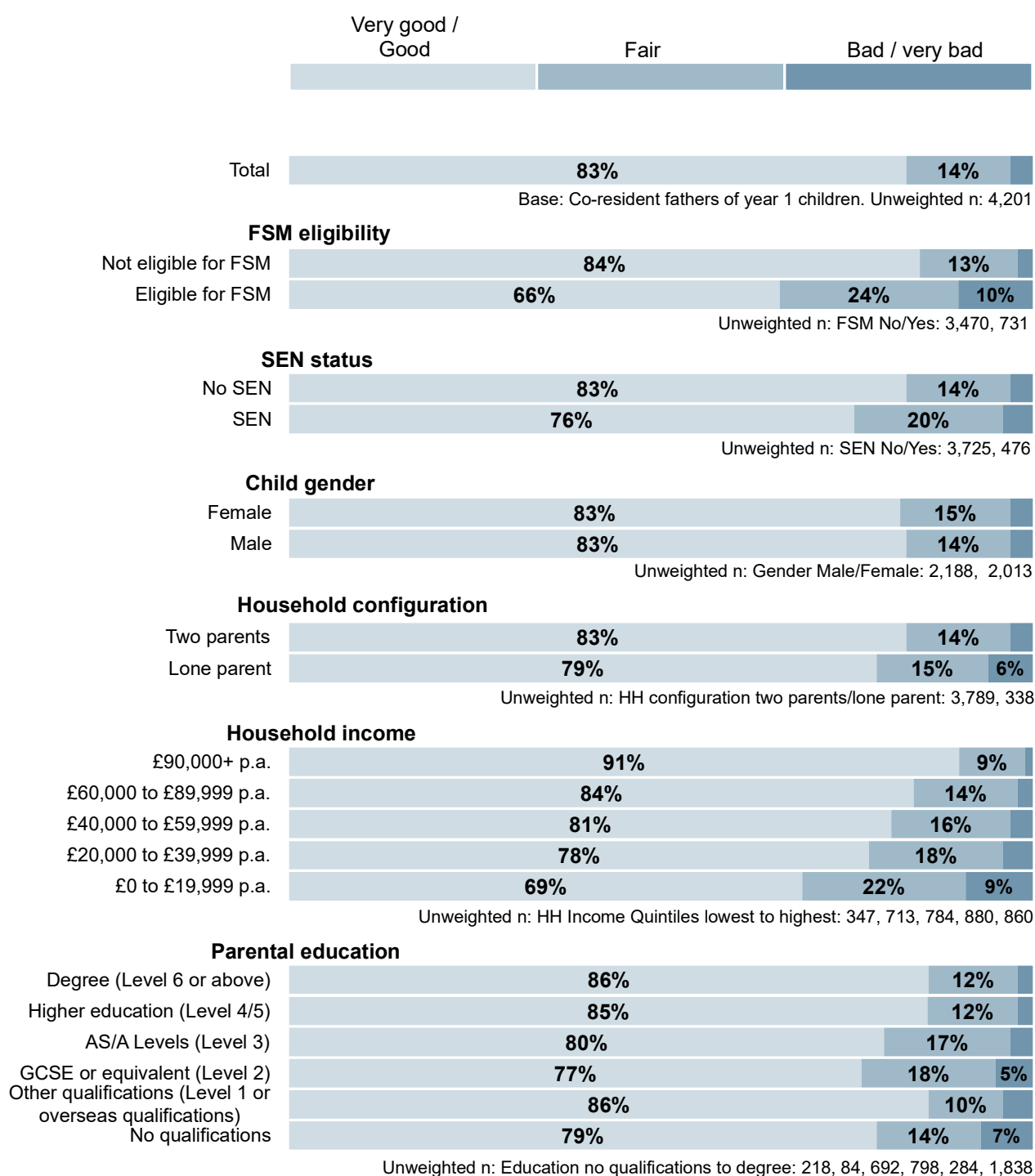
3.6.1.3 Demographic differences in co-resident parent/carers physical health

For both co-resident mothers and fathers interviewed as part of the study, several demographic differences in physical health were identified (see Figure 20 and Figure 21). Factors significantly associated with these differences included FSM eligibility and household income. Around two-thirds of co-resident mothers whose child was eligible for FSM reported very good or good health (67%), compared with nearly nine in ten co-resident mothers whose child was not eligible for FSM (86%). A similar proportion of co-resident fathers whose child was eligible for FSM reported very good or good health (66%), compared with over eight in ten co-resident fathers whose child was not eligible for FSM (84%).

Co-resident mothers in the lowest household income quintile were also less likely to report very good or good health (71%) compared with those in the highest household income quintile (90%). These proportions were similar among co-resident fathers, with just under seven in ten reporting very good or good health in the lowest household income quintile (69%), compared with just over nine in ten in the highest household income quintile (91%).

Another factor significantly associated with co-resident parent/carers physical health was highest level of parental education. Just under nine in ten co-resident mothers (87%) and fathers (86%) reported very good or good health where the highest level of parental education was degree or above.

Figure 21: Co-resident paternal physical health, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

3.6.2 Co-resident parent mental health

Standardised self-report measures for anxiety (Generalised Anxiety Disorder Questionnaire, GAD-7; Spitzer and others, 2006) and depression (Patient Health Questionnaire, PHQ-9; Kroenke and Spitzer, 2002) were used to assess co-resident parent mental health. Existing evidence suggests that GAD-7 and PHQ-9 are well validated measures for detecting and monitoring depression and anxiety (Kronke and others, 2010). Systematic reviews have also established that the GAD-7 is able to identify generalised anxiety disorder (Plummer at al., 2016) and that PHQ-9 has sufficient accuracy and sensitivity to support diagnosis of depression (Pettersson and others, 2015).

3.6.2.1 Co-resident maternal mental health

Just over seven in ten co-resident mothers self-reported that they did not experience anxiety (72%), with just under one-fifth reporting that they experienced mild anxiety (19%). Experience of moderate anxiety or severe anxiety was reported by less than one in ten co-resident mothers (9%) (see Figure 22).

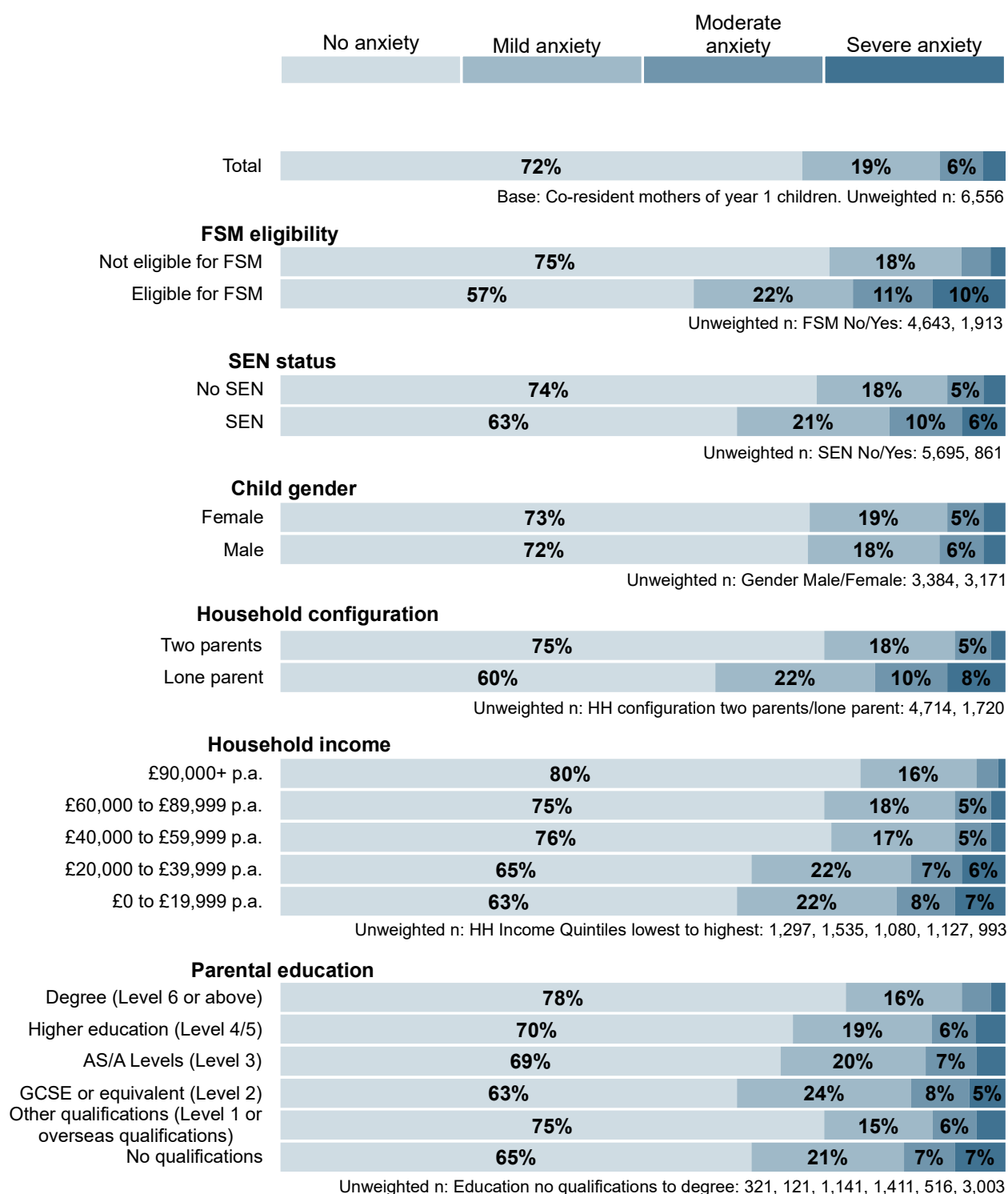
The percentage of co-resident mothers reporting experience of depression was similar to the proportions experiencing anxiety. In addition, the proportions were similar at different levels of severity. Just under seven in ten co-resident mothers reported that they did not experience depression (68%), with just over three in ten co-resident mothers reporting experience of mild depression, moderate depression, moderately severe depression or severe depression (32%) (see Figure 23). When exploring the severity level of reported depression of co-resident mothers, the majority (21%) reported mild depression, 7% moderate, 3% moderately severe and 1% severe depression.

3.6.2.2 Co-resident paternal mental health

Co-resident fathers were less likely to report experience of anxiety or depression than co-resident mothers in the study. The majority of co-resident fathers reported that they did not experience anxiety (79%), with less than one-fifth reporting that they experienced mild anxiety (15%). A small proportion of co-resident fathers reported experience of moderate anxiety or severe anxiety (6%) (see Figure 24).

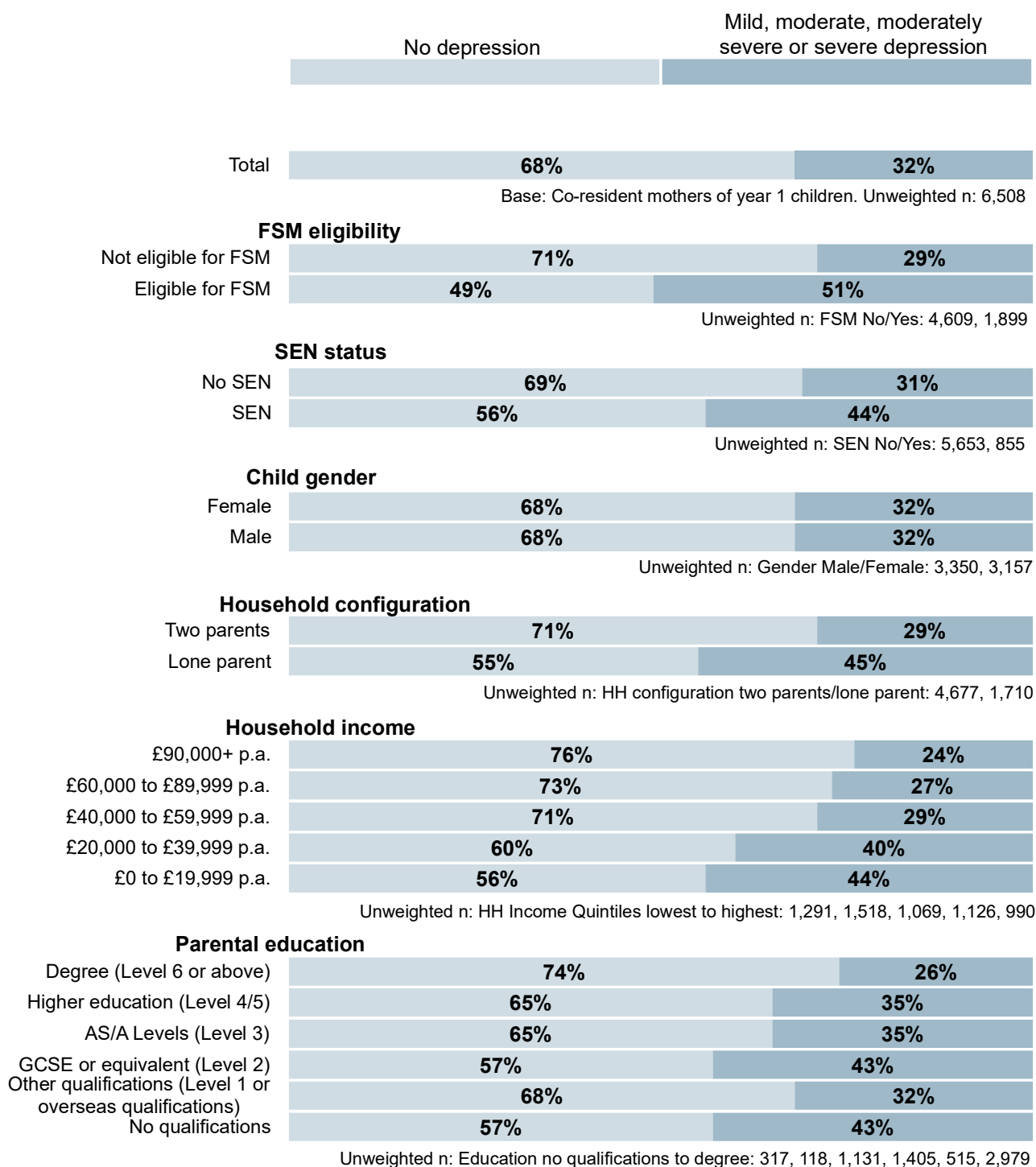
While the majority of co-resident fathers reported no experience of depression (71%, see Figure 25), experience of depression was more common for co-resident fathers when compared with anxiety. Fewer than three in ten co-resident fathers reported experience of mild, moderate, moderately severe or severe depression (29%), compared with two in ten who reported similar experience of anxiety (21%). Less than one-fifth of all co-resident fathers reported mild depression (19%), with the remainder reporting experience of either moderate depression (7%), moderately severe depression (2%) or severe depression (1%).

Figure 22: Proportion of co-resident mothers reporting anxiety, by demographic characteristics



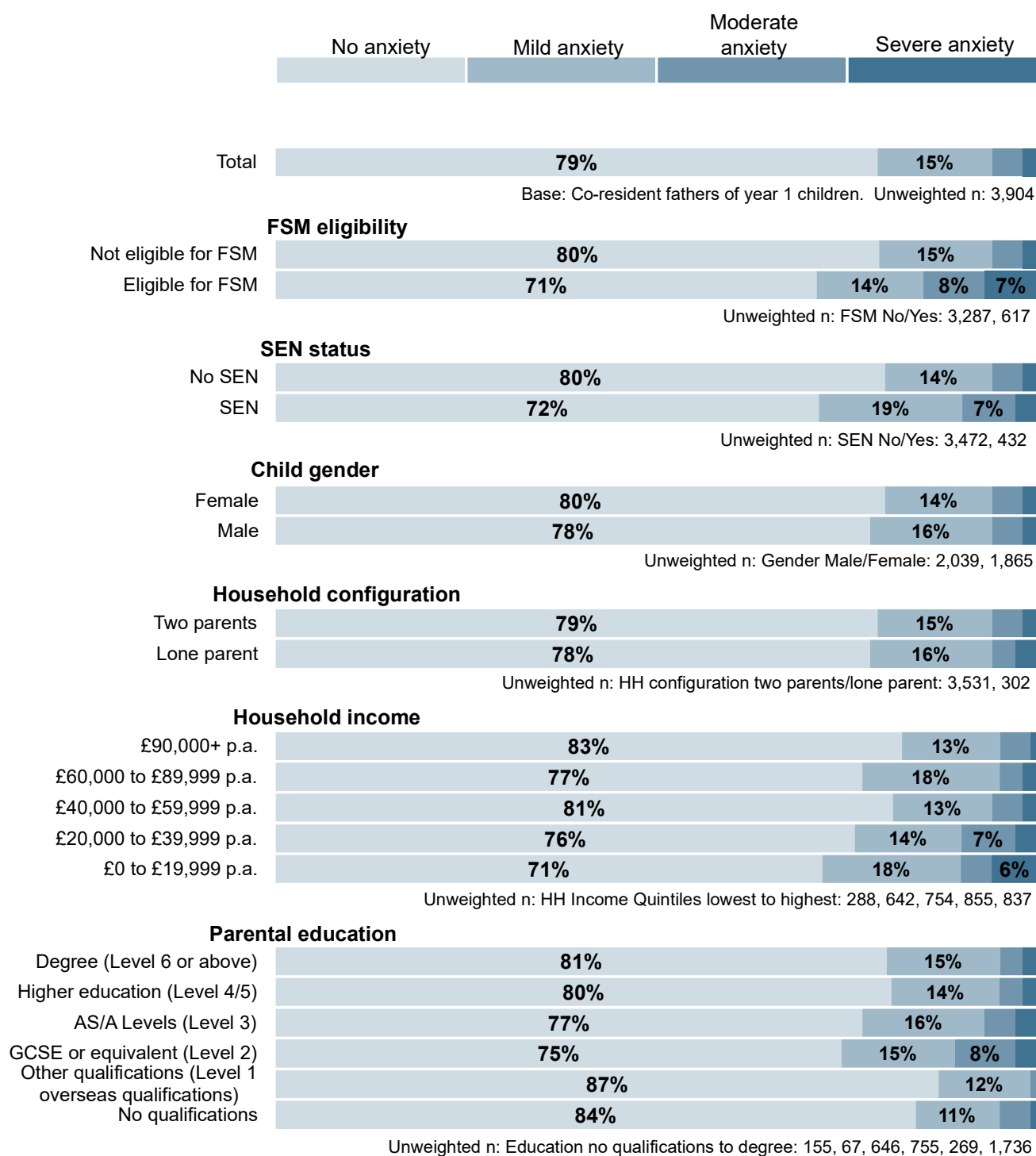
Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 23: Proportion of co-resident mothers reporting depression, by demographic characteristics



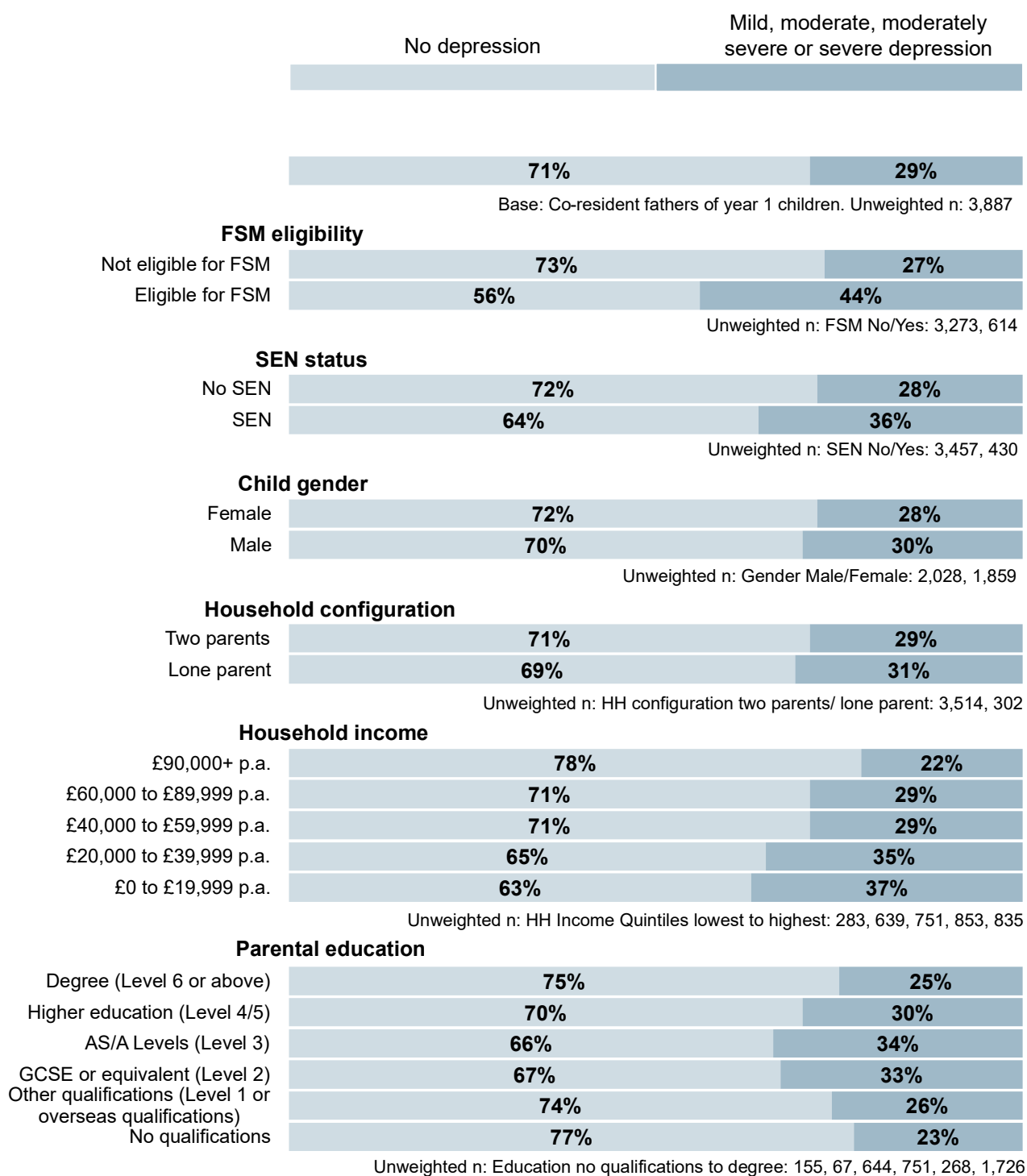
Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 24: Proportion of co-resident fathers reporting anxiety, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 25: Proportion of co-resident fathers reporting depression, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

3.6.2.3 Demographic differences in co-resident parent/carer mental health

Several demographic differences were identified in relation to co-resident parent/carer mental health, among both co-resident mothers and fathers. In relation to anxiety, over four in ten co-resident mothers whose child was eligible for FSM reported experience of anxiety to some degree of severity (43%), compared with less than one-quarter whose child was not eligible for FSM (24%). Around three in ten co-resident fathers whose child was eligible for FSM reported experience of anxiety to some degree of severity (29%), compared with just over one in five whose child was not eligible for FSM (21%). Lone mothers, whose children were more likely to be eligible for FSM, were more likely to report anxiety than those in two parent households (40% compared to 25%).

Experience of anxiety was associated with SEN status for co-resident mothers. Co-resident mothers of a child with SEN were more likely to report experience of either mild, moderate or severe anxiety (37%), compared with those of a child with no SEN (26%).

Main household income was also associated with the experience of maternal and paternal anxiety. Co-resident mothers and fathers in the lowest household income quintile were more likely to report the experience of mild, moderate or severe anxiety (37% and 28%, respectively), compared with those in the highest household income quintile (20% and 18%, respectively).

The child's eligibility for FSM and household income were also relevant in relation to maternal depression. One-half (51%) of co-resident mothers whose child was eligible for FSM reported the experience of mild, moderate, moderately severe or severe depression, compared with less than three in ten whose child was not eligible for FSM (29%). Co-resident mothers in the lowest household income quintile were also more likely to report experience of either mild, moderate, moderately severe or severe depression (44%), compared with those in the highest household income quintile (24%).

Among co-resident fathers, more than four in ten of those whose child was eligible for FSM reported experience of either mild, moderate, moderately severe or severe depression (44%), compared with around one-quarter whose child was not eligible for FSM (27%).

3.6.3 Smoking and drinking

All co-resident parents were asked to self-report on measures relating to incidence of smoking and alcohol consumption. Given the sensitive nature of these questions, they were part of the self-completion section of the questionnaire, a section of the main informant interview completed without the interviewer's involvement. A standardised measure for alcohol consumption (Alcohol use disorders identification test (AUDIT)) was used, providing each respondent with a banded AUDIT scale score (Saunders and others, 1993). AUDIT is an alcohol harm screening tool developed by the World Health

Organisation (WHO), modified for use in the UK and used in a variety of health and social care settings (Office for Health Improvement and Disparities, 2017). Existing evidence suggests that the AUDIT is a well validated measure for measuring drinking behaviour (Meneses-Gaya and others, 2009). Four bands enabled respondents' scores to be categorised into either 'low-risk consumption' (0 to 7), 'increasing risk consumption' (8 to 15), 'higher risk consumption' (16 to 19) or 'possible dependence' (20 or more) (Office for Health Improvement and Disparities, 2017).

3.6.3.1 Co-resident maternal smoking and drinking

The majority of co-resident mothers self-reported consuming low-risk (89%) levels of alcohol, with just over one-tenth falling into the increasing risk bracket (11%).

Nearly nine in ten co-resident mothers in the study reported not smoking cigarettes 'at all these days' (89%). Just over one in ten, therefore, reported smoking cigarettes to some extent (11%).

3.6.3.2 Co-resident paternal smoking and drinking

Among co-resident fathers in the study, just over eight in ten were categorised as consuming low-risk levels of alcohol (82%). Seventeen per cent self-reported levels of alcohol consumption which represented increasing risk, with just 1% categorised as having higher risk levels of consumption.

Nearly nine in ten co-resident fathers in the study reported not smoking cigarettes 'at all these days' (87%). Just over one in ten reported smoking cigarettes to some extent (13%).

Overall, 18% of children lived in households where one or more parents smoked.

When comparing co-resident mothers and fathers, a slightly higher proportion of co-resident fathers reported smoking cigarettes. In addition, alcohol dependency and hazardous or harmful alcohol consumption was higher among co-resident fathers compared to co-resident mothers.

3.6.3.3 Demographic differences in co-resident smoking and drinking

Co-resident mothers were more likely to report smoking cigarettes if their child was eligible for FSM (29%), compared with those whose child was not (7%). Co-resident mothers were also more likely to report smoking cigarettes if they were in the lowest household income quintile (23%) compared with those in the highest (2%). Overall, 35% of households where the child was eligible for FSM had at least one parent who smoked, compared to 13% where the child was not eligible.

A larger proportion of co-resident mothers smoked where the child had SEN (15%) compared to with no SEN (10%). In addition, co-resident mothers were more likely to

report smoking cigarettes if the highest level of parental education in the household was no qualifications (30%). In comparison, 4% of co-resident mothers where the highest level of parental education in the household was degree level or above reported smoking. No statistically significant differences were identified between groups in relation to maternal alcohol consumption.

Co-resident fathers were more likely to report smoking cigarettes if their child was eligible for FSM (37%). For those whose child was not eligible for FSM, the share of smokers was 10%. A larger proportion of co-resident fathers smoked if the child had SEN (17%) than with no SEN (12%), a similar difference to co-resident mothers. Co-resident fathers were also more likely to report smoking cigarettes if they were in the lowest household income quintile (31%) compared with those in the highest (4%). In addition, they were more likely to report smoking cigarettes if the highest level of parental education in the household was no qualifications (31%), compared with those where the highest level of parental education in the household was degree level or above (6%).

An association was identified between the banded AUDIT scale score, based upon self-reported alcohol consumption, and the child's eligibility for FSM. Co-resident fathers were more likely to be categorised as consuming low-risk levels of alcohol if their child was eligible for FSM (90%) compared with those whose child was not eligible for FSM (81%).

3.7 Co-resident parent parenting styles

'Parenting styles' refers to parental approaches to discipline, warmth and rule enforcement. Three domains are conceptualised through the Parenting Strengths and Dimensions Questionnaire (PSDQ) (Robinson and others, 2001), a tool widely used across longitudinal studies of childhood and beyond. Existing evidence suggests that the PSDQ is a well validated measure for parenting styles (Olivari, Tagliabue and Confalonieri, 2013). These domains are:

- 'Authoritative' parenting style – both highly responsive and demanding: authoritative parents are warm and supportive, but they also expect their children to behave appropriately.
- 'Authoritarian' parenting style – highly demanding, but less responsive: authoritarian parents set high expectations for their children, but they provide little warmth or support.
- 'Permissive' parenting style – less demanding, but highly responsive: permissive parents are warm and supportive, but they do not have many rules or expectations for their children.

Being 'responsive' refers to the extent to which parents are warm, supportive, and attuned to their child's needs. Being 'demanding' refers to the extent to which parents expect their child to conform to rules and standards. These dimensions are consistent

with evidence from parents of school-age children (Baumrind, 1971; Robinson and others, 2001).

Evidence of the impact of parenting style on children's attainment is not entirely consistent (Harland and others, 2024; Hartas, 2013). Studies have found that harmonious parent-child relationships and greater warmth in the relationship, characterised by authoritative parenting, is associated with good school progress and better key stage 1 (KS1) outcomes. Higher permissive parenting scores have been linked with poorer KS1 outcomes (Evans and Field, 2020; Melhuish and Gardner, 2021). Enforcement of rules as well as a close parent-child relationship, observed as features of an authoritative parenting style, may have a positive impact on children's verbal skills (Jones, Gutman and Platt, 2013).

A meta-analysis of seven studies has suggested similar directionality. Authoritative parenting style was associated with better academic performance, whereas both harsher (such as authoritarian) and permissive parenting styles were related to lower achievement. However, the association was weak with small effect sizes (Axford and others, 2019). Many previous studies have focused on general parenting styles but few have looked at parenting styles by the parent type such as maternal, paternal and OHP.

As part of Five to Twelve, all parents (the main informant, partner/co-parent and OHP) were asked about their parenting style and how often they show certain behaviours towards their child. This section deals with parenting style for co-resident parents only. Parenting styles of the OHP can be found in section 4.8. Measurement of parenting style comprised 32 questions from the PSDQ (Robinson and others, 2001). Each question consists of a five-point Likert scale from never to always.

The answers from the PSDQ map onto the three different domains: authoritative, authoritarian and permissive. A higher score indicates the co-resident parent's propensity towards that parenting style.

Each domain is assessed separately from the others and the scores are not combined across domains. A parent can have a high score on one or two of the domains, but they are not likely to have a high score on all three domains. Therefore, the data is presented based on the proportion of co-resident mothers and fathers who have a high score in each domain. Few parents had a low authoritative score or a high authoritarian or high permissive score. Therefore, based on the distribution in this sample, scores are represented as follows:

- a *higher* score for the authoritative domain is four and over
- a *higher* score for the authoritarian domain is two and over
- a *higher* score for the permissive domain is three and over

3.7.1 Co-resident maternal parenting styles

Most co-resident mothers (79%) had a higher authoritative score (as defined above, see Figure 26). Nine per cent had a higher authoritarian score (see Figure 27). Ten per cent had a higher permissive score (see Figure 28). On average, co-resident mothers had an authoritative score of 4.3, an authoritarian score of 1.5 and a permissive score of 2.1. This suggests that co-resident mothers were overall more authoritative than authoritarian or permissive.

3.7.2 Co-resident paternal parenting styles

Two-thirds of co-resident fathers (65%) had a higher authoritative score (see Figure 29) (as defined above). Ten per cent had a higher authoritarian score (see Figure 30), while 11% had a higher permissive score (see Figure 31). On average, co-resident fathers had an authoritative score of 4.1, an authoritarian score of 1.5 and a permissive score of 2.1.

Comparing co-resident fathers and mothers, there was no difference between their authoritative and authoritarian scores. However, co-resident fathers had a slightly larger proportion reporting a higher permissive score.

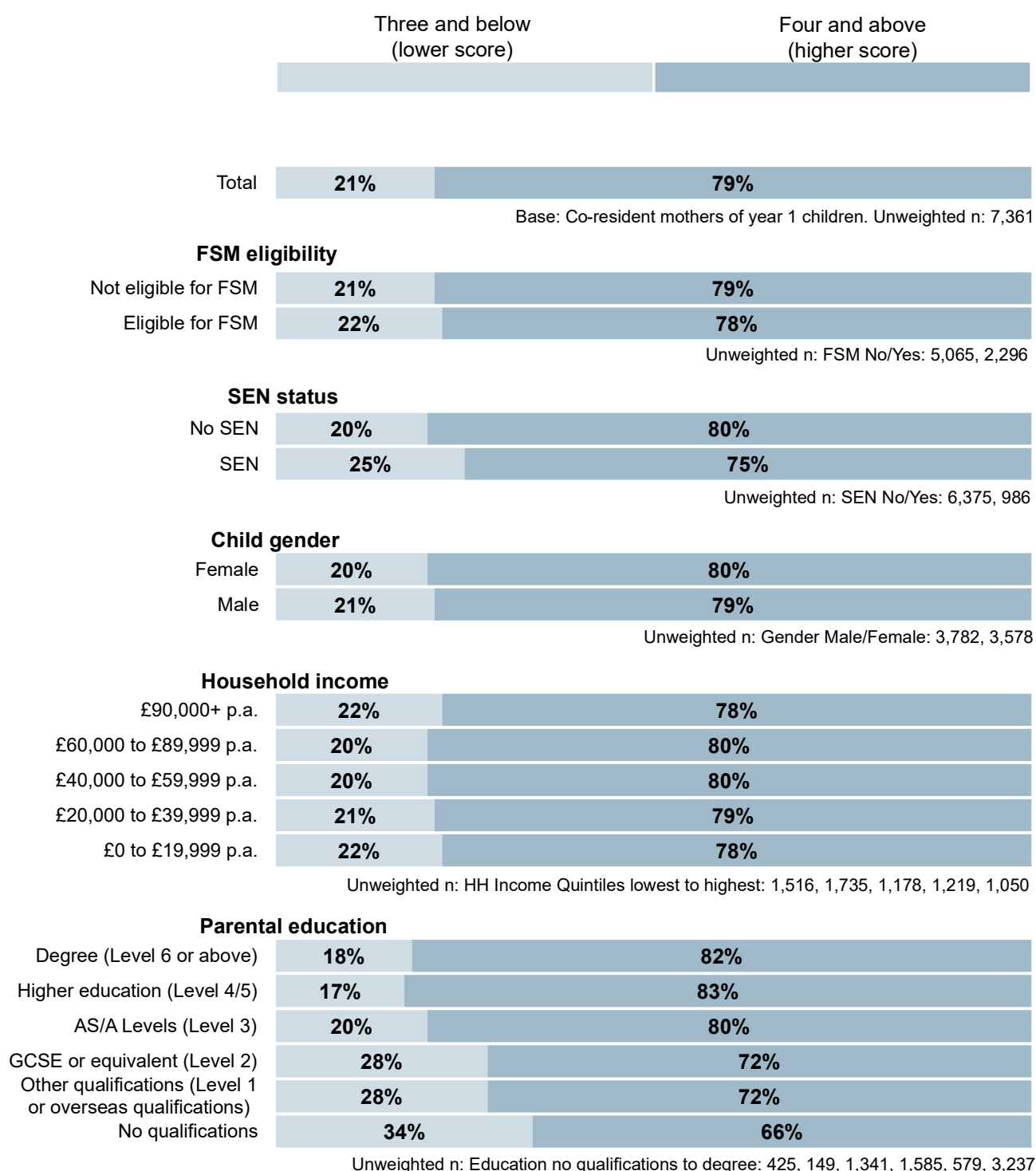
3.7.3 Demographic differences in co-resident parenting styles

3.7.3.1 FSM eligibility

Some differences in the distribution of parenting style traits, relative to the overall sample, were apparent in main households with a child eligible for FSM. In these households there was no difference in authoritative scores among co-resident mothers. However, co-resident mothers in these households were more likely to have a higher authoritarian score than in non-eligible households (13% compared to 9%). Similarly, a larger proportion of co-resident mothers of an FSM-eligible child reported a higher permissive score (18%) compared to those whose child was not eligible (9%).

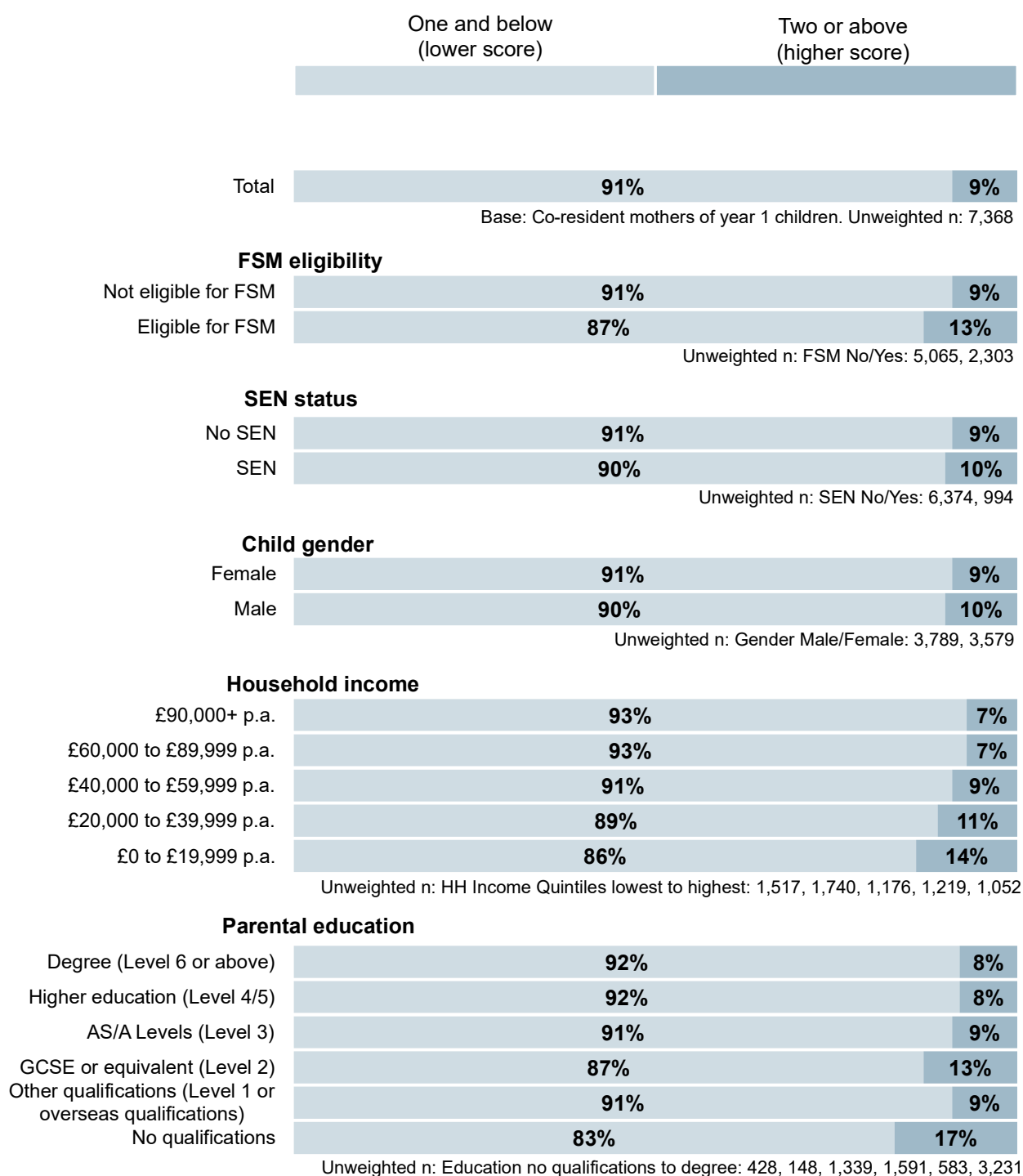
A larger proportion of co-resident fathers with a child eligible for FSM were more likely to have a high authoritative score (74%) compared to those not eligible for FSM (64%). Authoritarian scores were similar for co-resident fathers in both types of households (12% compared to 10%, although this difference was not statistically significant). A larger proportion of co-resident fathers in FSM-eligible households were more likely to have a higher permissive score (16% vs. 11% of those in non-eligible households).

Figure 26: Co-resident maternal authoritative scores, by demographic characteristics



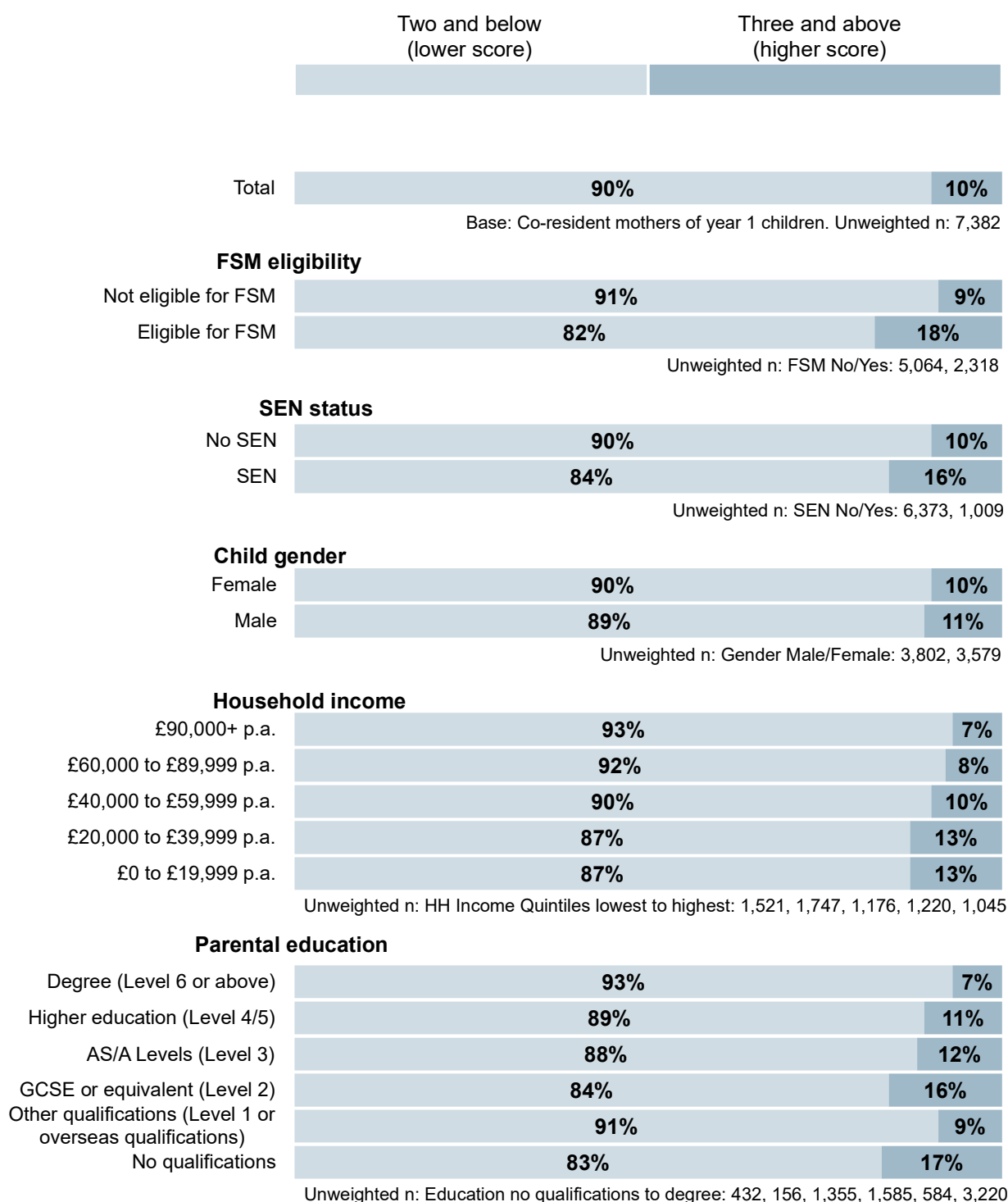
Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer

Figure 27: Co-resident maternal authoritarian scores, by demographic characteristics



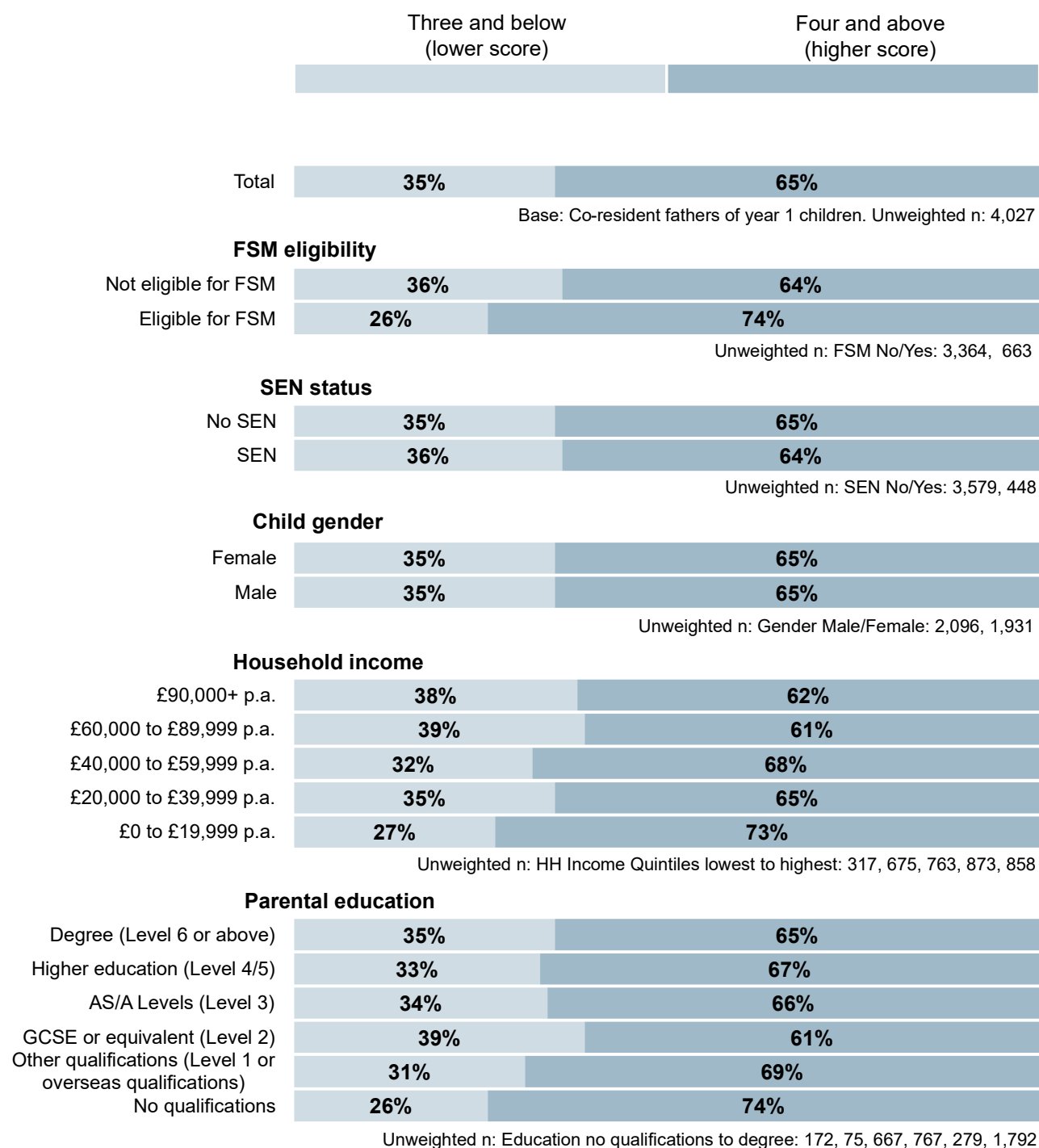
Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 28: Co-resident maternal permissive scores, by demographic characteristics



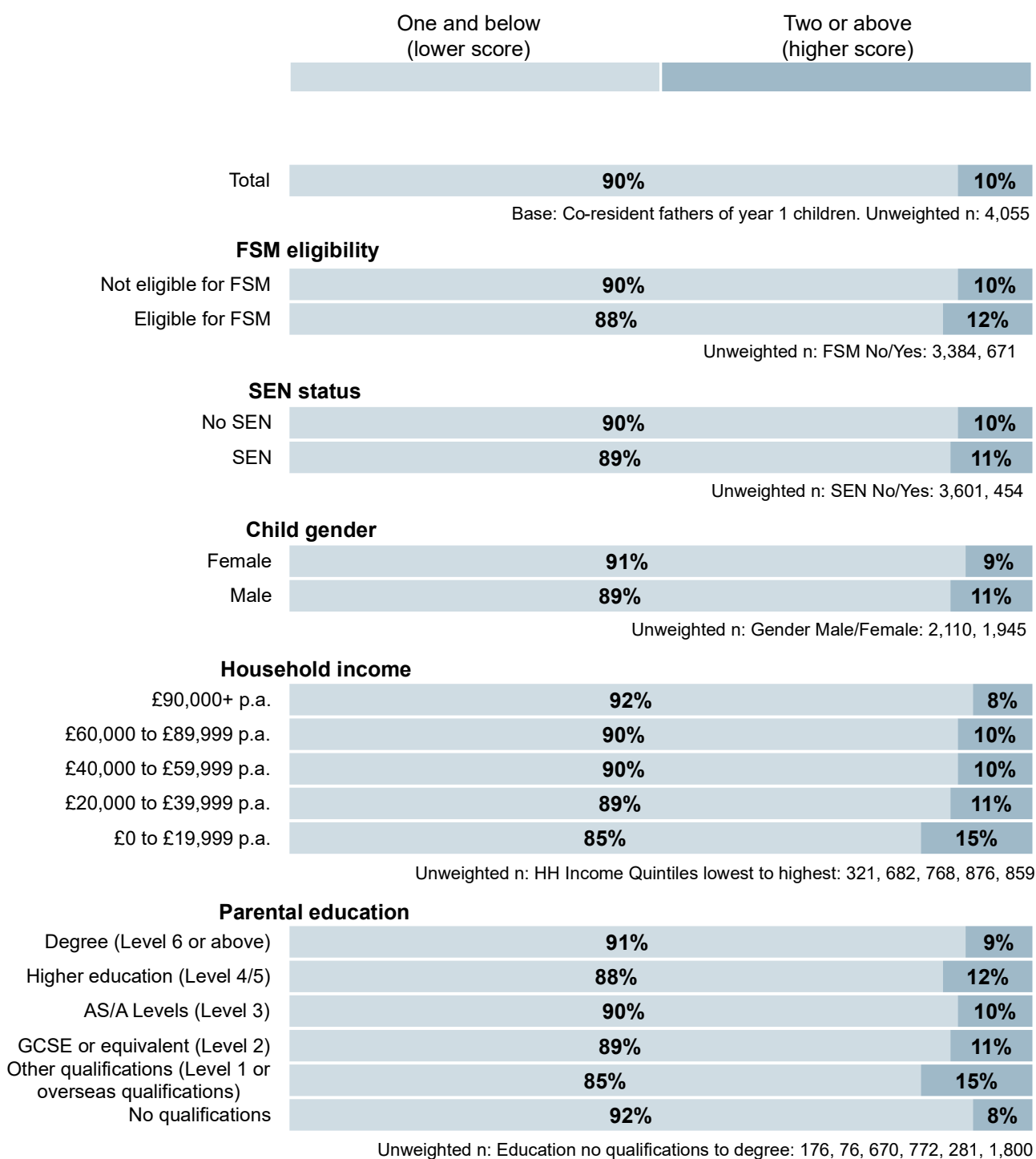
Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 29: Co-resident paternal authoritative scores, by demographic characteristics



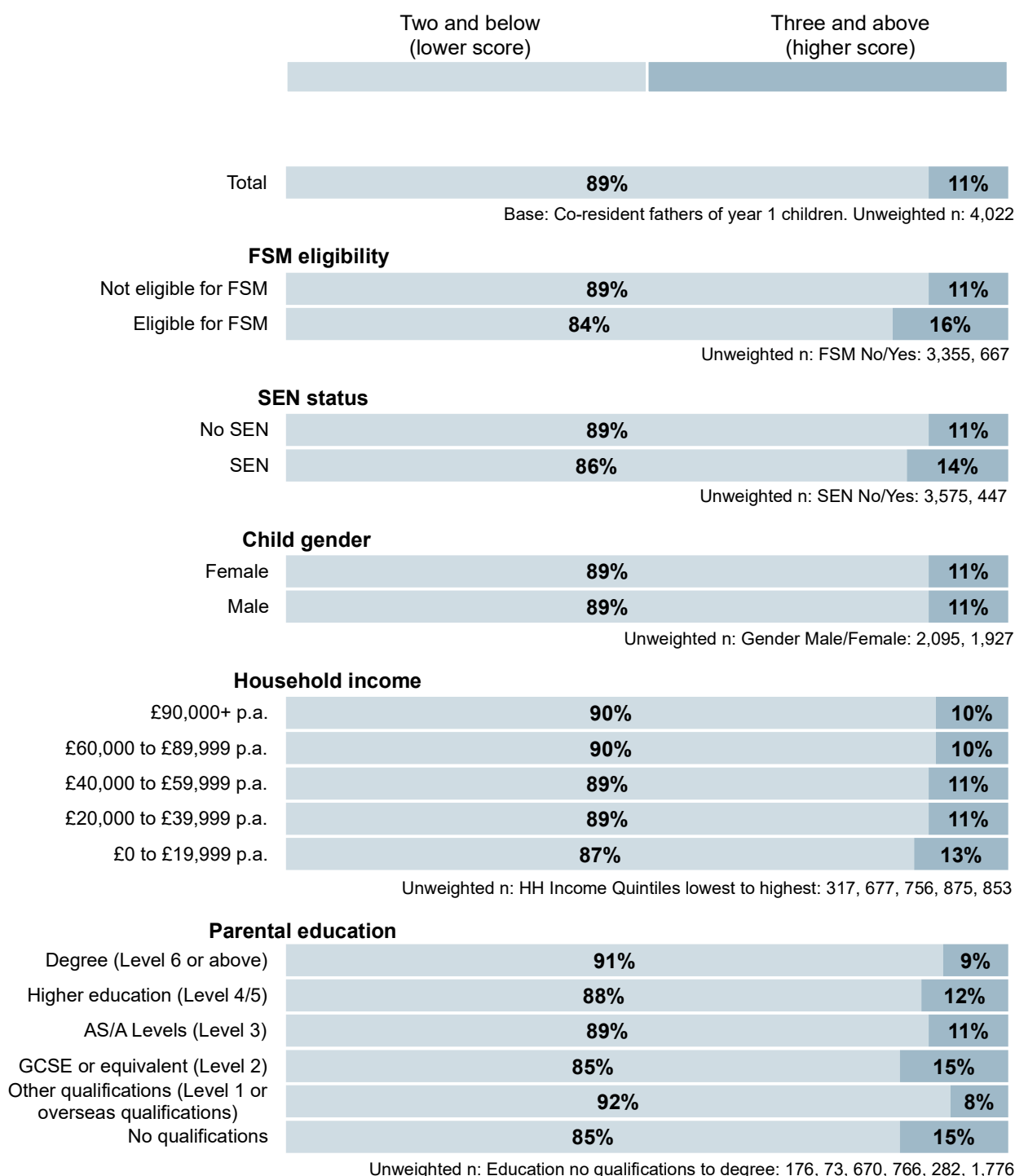
Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 30: Co-resident paternal authoritarian scores, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 31: Co-resident paternal permissive scores, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

3.7.3.2 SEN status

Co-resident mothers (but not fathers) raising children with SEN also showed some differences in parenting styles. Co-resident mothers of children with SEN were more likely to have a higher permissive score, compared to those with a child with no SEN (16% compared to 10%). Co-resident mothers with and without a child with SEN had similar authoritarian scores. Slight differences by SEN status in relation to authoritative scores were observed but not statistically significant.

There was no difference in co-resident fathers' authoritative, authoritarian and permissive scores regardless of whether their child had SEN.

3.7.3.3 Child gender

No statistically significant differences were found in relation to co-resident mothers' and fathers' parenting styles and child gender.

3.7.3.4 Household income

Similar proportions of co-resident mothers across household income quintiles had a high authoritative score. Co-resident mothers with the lowest household incomes were slightly more likely to have a higher permissive score compared to those with the highest household incomes: 13% of the lowest household income quintile had a higher permissive score compared to 7% in the highest household income quintile. Differences by co-resident mothers' household income in relation to the authoritarian scale were observed but not statistically significant.

Co-resident fathers were more likely to have a higher authoritarian score in the lowest household income quintile (15%), compared to the highest household income group (8%). Differences in relation to co-resident fathers' authoritative scores and household income were observed but not statistically significant. There was no difference between co-resident fathers' household income and permissive parenting score.

3.7.3.5 Co-resident parental education

Co-resident mothers where the highest level of parental education was degree and above were more likely to have a higher authoritative score (82%), compared to those where highest parental education was GCSEs or equivalent (72%). In relation to authoritarian scores, those in households where the highest educational attainment was GCSE or equivalent (13%) were more likely to have a higher score compared to those where it was degree and above (8%). Similarly, co-resident mothers in households with no parental qualifications (17%) were more likely to have a higher permissive score compared to co-resident mothers in households where the highest level of parental education was degree and above (7%).

Conversely to the patterns observed of co-resident mothers, higher authoritative scores were reported for fathers less in well-educated households compared to those with higher levels of education. Higher authoritarian scores were more likely among co-resident fathers where the highest level of educational attainment was other qualifications. Of this group, 15% had higher authoritarian scores, compared to 8% of co-resident fathers in households with no parental qualifications and 9% of those in households educated to a degree or above. Co-resident fathers where the highest level of parental education was GCSE or equivalent (15%) were more likely to have a higher permissive score, compared to those in households educated to a degree and above (9%).

3.8 Summary

This section looked at co-resident parent and carer health and wellbeing, which is associated with childhood health and wellbeing, educational attainment and outcomes in childhood. Over eight in ten co-resident parents considered their physical health to be good or very good, while just over one-quarter of co-resident mothers and just under one in five co-resident fathers reported having a physical or mental health condition or illness lasting, or expected to last, twelve months or more. Factors associated with lower levels of co-resident parent or carer physical health included FSM eligibility, household income, child SEN status and level of co-resident parental education. Experience of anxiety and depression among co-resident mothers and fathers was higher for those whose child was eligible for FSM, had SEN, as well as for those with a lower household income. Smoking was more prevalent among co-resident mothers and fathers where the child was eligible for FSM, had SEN, in the lowest household income quartile and the lowest parental education category. There was no difference in drinking behaviour of co-resident mothers and different demographic characteristics. Co-resident fathers were more likely to be categorised as low risk drinkers if the child was eligible for FSM or in the lowest household income quintile.

In relation to parenting style, most co-resident parents had high scores on the authoritative scale, meaning they were warm and supportive but also set and upheld rules for their child. Co-resident mothers were somewhat more likely to score highly on this scale than co-resident fathers. About one-tenth of parents scored highly on the authoritarian scale, characterised as having high expectations and providing little support and warmth. One-tenth scored highly on the permissive scale, meaning they were warm and supportive, but did not have many rules or expectations for their children. There was little difference between mothers and fathers in the proportion exhibiting these two styles.

Some similarities were also observed between co-resident mothers and fathers of a child eligible for FSM in relation to parenting styles. However, compared to co-resident mothers of a child not eligible for FSM, co-resident mothers of a child eligible for FSM were more likely to have higher permissive and slightly higher authoritarian scores. Co-

resident fathers with a child eligible for FSM were more likely to have higher authoritative as well as higher permissive scores compared to fathers of a child not eligible for FSM.

In general, scores on the authoritarian scale were low across all groups. However, scores were higher among co-resident parents with lower household income. Co-resident mothers with lower household income also had higher permissive scores.

4. Child and Parents living separately

Key findings

- parents living separately from the cohort child are known as ‘own household parents’ (OHPs) in this report.
- one-fifth (19%) of children in year 1 had an OHP, with these households being more likely to have a child eligible for free school meals (FSM).
- the majority of OHPs were fathers (92%). Most were not living with a partner (81%), and most did not live with any children (72%). One-half (55%) of those reporting that they lived with children regarded themselves to be living with the cohort child.
- two-thirds (66%) of children saw their OHP at least once per week according to the main informant. According to OHPs themselves, more than one-half (57%) of OHPs who saw their child at least once per fortnight reported that their child talked to them about things that matter ‘most days’.
- eligibility for FSM was frequently associated with less OHP involvement. OHPs where the child was eligible for FSM reported fewer overnight stays, fewer evening meals together and less social activities during the week.
- Five to Twelve included direct involvement of OHPs in data collection, as well as collecting data about OHPs from the parent in the child’s main household. OHPs were invited to take part if the main informant had reported that the OHP had seen the child in the last 12 months (83% had of all OHPs reported by the main informant).

4.1 Introduction

An ever-growing evidence base demonstrates the impact of paternal involvement in children’s education and wellbeing outcomes, including ‘Own Household Fathers’ (Norman and others, 2021; Rolle, and others, 2019; Tanskanen and Erola, 2017). Research suggests that involvement of non-resident fathers (including higher contact frequency, relationship closeness, and financial support) is associated with increased cognitive and educational scores for children (Tanskanen and Erola, 2017). Five to Twelve therefore set out to collect data about and from this group of parents with an aim to better understanding the roles and mechanisms through which Own Household Parents (OHPs), the majority of whom are fathers, can shape children’s outcomes as the study progresses.

Five to Twelve defines OHPs as biological and other legal parents (including parents named on birth and adoption certificates) who live, for all or most of the time, in a different household to the cohort child's main household. This does not include stepparents who have moved out, or parent figures who are not a legal parent to the child, such as cohabiting partners of OHPs. Households where the main informant and the OHP are in a relationship but live separately were also included as OHPs. If the main informant had not indicated another biological or adoptive parent in the household or had indicated that they did not have a cohabiting partner, they were asked whether the child had a biological or legal parent who lives somewhere else.

The inclusion of OHPs in a UK primary cohort study represents both a methodological challenge and innovation. Data about OHPs was collected in two ways. Core information about OHPs, such as details of contact between the OHP and child and contributions made by the OHP, was collected from the main informant as part of the face-to-face interview. In addition, where we could access contact details for OHPs, an online questionnaire was issued to them directly.

OHP eligibility for the survey was based on the OHP having been in contact (via phone, video call or in person) with the cohort child in the 12 months prior to the main informant interview. Eighty-three per cent of all OHPs met this criterion. Response rate from OHPs themselves was relatively low, as outlined in the methodology section (Appendix 10.1 Appendix A: Technical Summary - Survey Design). Reasons for this included main household parents not being able or willing to provide contact information, as well as non-response from OHPs.

In total, 327 OHPs completed the survey, representing 17% of the eligible group (and 35% of those for whom contact information was provided). Although small, this sample was analytically viable. Analysis for this report focuses on OHPs who were in contact with their child at least fortnightly. This focus is due to high levels of survey non-response among OHPs with the lowest level of contact. However, the majority (80%) of OHPs in contact with children in the last 12 months saw their child at least this often, and this group of OHPs is the most relevant to child outcomes. Weighting was successfully developed for this sub-group (n=298) of responding OHPs in contact with their child in the prior 12 months.

Reporting on OHPs in this chapter therefore brings two types of data:

- Main informant-reported data (representative of all OHPs): including frequency of contact; whether the OHP and the child had ever lived together and, if so, time since living together; overnight stays in term time and holidays; as well as financial and material contributions made by the OHP.

- OHP-reported data (representing only OHPs who saw their child at least once per fortnight): including information on contact, contributions, as well as OHP health and wellbeing and activities with the child.

The text makes clear where data pertains to each of these groups. Broadly, the main informant data are used for more objective measures such as patterns of contact, with OHP-reported data used for subjective measures such as mental health.

For analytical purposes, three additional independent variables were derived for use in this section: an OHP income variable, an OHP education variable and an OHP involvement variable. OHP income categories were constructed using the same derivation as the main household income quintiles, applied to the OHP income distribution. A three-category variable was constructed to examine OHP education, since different education questions were used in relation to the OHP. Finally, a binary OHP involvement variable was derived. This variable is based on OHP involvement: those OHPs who saw their child 'at least once or twice per week', compared to those who see them less often than this. As outlined earlier, the small number of OHPs who responded to the online questionnaire but saw the child less frequently than once per fortnight were excluded from the analysis conducted for this report.

In common with the rest of this report, all differences noted have been tested for statistical significance unless otherwise stated. Analysis is limited to the relationship between two variables and does not control for other factors. Please refer to the reporting conventions section (1.2.3) for more information.

4.2 Prevalence of own household parents

Overall, just under one-fifth (19%) of children in the sample had an OHP (see Table 17). The child having an own household parent (OHP) was associated with all core independent variables except child gender. Children were significantly more likely to have an OHP where their main household was eligible for free school meals (FSM) (50%) compared to main households that were not eligible for FSM (12%). This is as expected, since lone parent households are more likely to have lower incomes compared to two-parent households and are known to experience poverty at greater rates than two-parent households (Reis, 2025). Having an OHP was also more likely where the child had special educational needs (SEN) (27%) compared to where the child did not have SEN (18%).

As with FSM eligibility, a clear association existed between OHP and household income quintiles. Just under one-half – 45% – of children living in main households in the lowest quintile had an OHP, compared to 11% of children in the middle income quintile and 2% of children living in the highest household income.

Table 17: Key OHP Statistics (according to main informant)

Key OHP statistics	%	Unweighted Base	Weighted Base
Children with an OHP (of all children)	19	8,621	8,621
Children in contact with their OHP within the previous 12 months (of those with an OHP)	83	2,360	1,817
OHPs ever lived at the same address as child (of those with an OHP)	60	2,138	1,660
OHP sees child at least once a fortnight or more frequently during term time (of those with an OHP in contact in last 12 months)	80	1,754	1,382
Child stays overnight with OHP during term time (of those seeing OHP during term time)	57	1,568	1,246

Base: see table

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

There was also a correlation between main household education and whether the child had an OHP. An OHP was associated with 37% of households where the main household level of parental education was no qualifications, 38% of households where the main household level of parental education was GSCE or equivalent, and 10% of households where the main household level of parental education was degree or above.

4.3 Characteristics of own household parents

The main informant provided information about OHP gender and other characteristics about which they were likely to have good knowledge. Other OHP characteristics, such as education and income, were asked of the OHP themselves (although, as noted in the introduction to this section, analyses of these characteristics in this report is limited to the subset of OHPs who were in touch with the child at least one per fortnight).

4.3.1 Gender

According to information provided by the main informant, the majority of OHPs were male (92%), 8% were female and less than 1% were 'other' gender.

4.3.2 Whether born in UK

Data about whether OHPs were born in the UK was collected directly from OHPs themselves and therefore relates to those in touch with the child at least once a fortnight. Four-fifths of this group of OHPs (82%) were born in the UK, with 18% born outside the UK.

4.3.3 Education

This sub-section refers to data collected from OHPs themselves. OHPs seeing their child at least once a fortnight were asked about the highest level of education they had achieved. Eighteen per cent were educated to a degree level or above, 57% were educated below a degree level and 25% had no qualifications. OHP education level was not associated with whether the child was eligible for FSM, whether the child had SEN, child gender or OHP involvement, although small sample size may play a role in some of these instances.

4.4 OHP Households

This section refers to data collected directly from OHPs. The largest proportion (41%) of OHPs in contact with their child at least once a fortnight lived alone (see Table 18). Twenty-five per cent of OHPs lived with other adults without a partner, 12% lived with just children and 11% with a partner and children. Overall, 81% of OHPs did not report a partner in their household and 72% did not live with any children.

Table 18: OHP household composition

OHP Household Composition	% of OHPs
OHP only	41
OHP plus partner	6
OHP plus children	12
OHP plus partner and children	11
OHP plus partner and children and other adults	2
OHP plus children and other adults	2
OHP plus other adults	25
OHP plus partner and other adults	1
<i>Unweighted Base</i>	265
<i>Weighted Base</i>	240

Base: OHPs of year 1 children who see the cohort child at least once per fortnight

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Just over one-quarter of OHPs (28%) lived with children. Of these, 78% were legal parent to at least one of the children in their household. Fifty-one per cent of OHPs living with children lived with one child, 26% lived with two children, 19% with three, 2% with four and 2% with five children. Of OHPs living with a child, 55% recorded the cohort child when counting the total number of children in the household and 45% did not. One-quarter (26%) of OHPs living with a child lived with other children that they had with the main informant.

4.5 OHP Income and income sources

The following sections on income are based on data collected directly from OHPs. Almost three-quarters (73%) of OHPs in contact at least once a fortnight had a household income of below £40,000 per annum: 35% had a household income of £0 to £19,999 p.a., while 38% had a household income over £20,000 to £39,999 p.a. Just over one-quarter (27%) had a household income over £40,000 or more.

OHPs were asked what types of income their household received. Sources of OHP income are outlined in Table 19. Over three-quarters (79%) of OHPs reported earnings from employment or self-employment. Fifteen per cent (15%) reported income from Universal Credit, 12% from child benefit, 7% from housing benefit or council tax support and 5% from personal independence payments. Three per cent reported household income from employment and support allowance, 2% from child tax credit, 2% disability living allowance and 1% from other state benefits. One per cent received child maintenance from a previous partner.

Table 19: Own household parents income sources

OHP income sources	%
Earnings from employment or self-employment	79
Universal Credit	15
Child benefits	12
Housing Benefit / Council Tax Support	7
Personal Independence Payment	5
Employment and Support Allowance	3
Child Tax Credit	2
Disability Living Allowance	2
Other state benefits	1
Interest from savings and investments (e.g. stocks and shares)	1
Private or state pension	1
Child maintenance from a former husband / wife / partner (including Child Support Agency grant)	1
Other kinds of regular allowance from outside your household	1
Student grant	<1
Incapacity Benefit	<1
Jobseeker's allowance	<1
Unweighted Base	263
Weighted Base	241

Base: OHPs of year 1 children who see the cohort child at least once per fortnight

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

4.5.1 OHP income and income sources, by socio-demographics

OHP income was correlated with child FSM eligibility as well as with OHP level of education. OHPs of children eligible for FSM were more likely to be in lower income brackets than OHPs of children not eligible for FSM. OHPs with degree level qualifications or above were more likely to earn £40,000 or over (41%) compared to OHPs with no (20%) or below degree level (24%) qualifications.

4.6 OHP wellbeing

Data on OHP wellbeing was collected directly from OHPs themselves. Measures included subjective health, physical health conditions, depression, anxiety as well as health behaviours such as alcohol use and smoking. Please refer to section 3.6 for more details of the measures.

4.6.1 OHP physical health

Over three-quarters (77%) of OHPs in contact with their child at least once a fortnight reported that their physical health was 'good' or 'very good'. OHP health was not correlated with any independent variables in the analysis: this is likely due to small sample sizes.

Just over one-quarter (27%) of OHPs had a physical or mental condition or illness lasting or expected to last 12 months or more. Having a physical or mental health condition was associated with OHP household income but not with other independent variables. OHPs in the lowest household income group (£0 to £19,999 p.a.) were three times as likely to have a health condition (45%) compared to those earning over £40,000 (15%).

Of OHPs with health conditions, 49% reported that their health condition affected their life a lot or a little.

4.6.2 OHP mental health

As part of the online questionnaire, OHPs were asked to report on their experience of depression and anxiety separately. Two validated measures, the Generalised Anxiety Disorder scale (GAD-7; Spitzer and others, 2006) and the Patient Health Questionnaire (PHQ-9; Kroenke and Spitzer, 2002) were used within the questionnaire instrument.

Over one-third, or 35%, of OHPs in the sample analysed self-reported depression. Twenty-one per cent reported mild depression, 8% reported moderate depression, 2% moderately severe depression and 4% severe depression.

Anxiety was slightly less prevalent than depression. Over one-quarter of OHPs reported anxiety (28%): 17% reported mild anxiety, 7% moderate anxiety and 4% reported severe anxiety.

Differences between OHPs and co-resident parents were observed. Importantly, these were not tested for significance, in part due to the small OHP sample size. When comparing mental health symptoms reported by OHPs to co-resident mothers and fathers, a larger proportion of OHPs reported mild to severe depression compared to co-resident mothers and co-resident fathers (35%, 32% and 29% respectively). Prevalence of anxiety was similar among co-resident mothers and OHPs. A slightly larger proportion of OHPs reported anxiety compared to co-resident fathers (15% mild anxiety, 4% moderate anxiety and 2% severe).

4.6.3 OHP smoking and drinking

Data on alcohol use and smoking cigarettes was collected from OHPs directly, via the online questionnaire. Details on the classification of alcohol consumption can be found in section 3.7.3.

The majority (89%) of OHPs self-reported low-risk alcohol consumption, with 8% reporting increasing risk and 3% higher risk consumption. Alcohol use patterns were not associated with independent variables, with the exception of OHP household income. OHP households with an income of £40,000 or more were more likely to have 'increasing risk' levels of consumption (13%) compared to those in the lowest quintile (5%).

Just under one-third (30%) of OHPs smoked cigarettes. Cigarette use was associated with OHP level of education. OHPs with no qualifications were more than six times as likely to smoke as those with degrees.

4.7 OHP contact and contributions

Both the main informant and the OHP were asked about the child's contact with the OHP. A comparison of questions in the two interviews is provided in Appendix E (Section 11.5). For more information about the topics asked for all co-resident parents and the OHP see Appendix A in section 11.1.

This section will first outline patterns of contact as reported by main informants before discussing data on financial and material contributions, as reported first by main informants and then by OHPs. Reports of patterns of contact by main informants and OHPs, while bearing in mind the different sample composition (main informants reported on all OHPs, compared to the sample of the most involved OHPs who responded to the survey) followed similar dynamics, including in relation to socio-demographic

characteristics. Accordingly, we limit the discussion of patterns of contact in this section to that based on main informant data only.

4.7.1 Whether the OHP had ever lived in the same household as the cohort child, and time since residing with the child

The main informant was asked whether the child's OHP had ever lived at the same address as the child. Sixty per cent of main informants reported that the OHP had lived at the same address as the child. The proportion of main informants reporting that the OHP had ever lived at the same address as the child was lower among families eligible for FSM (54%) compared to families not eligible for FSM (66%). The same was true for families where the child had SEN (53% compared to 62% with no SEN). This pattern was also observed by household income. Fifty-two per cent of respondents in the lowest income quintile reporting that the child's OHP had ever lived at the same address, compared to 78% of those in the middle income quintile and 80% of those with a household income of £60,000 or over.¹⁹ A similar pattern was evident by highest level of main informant parental education.

The main informant was asked about when the OHP last lived with the child. Sixty-four per cent of those who had lived at some point with the child and the OHP reported that the OHP stopped living with the child more than two years ago. A further 17% reported that the OHP stopped living with the child between one and two years ago, 11% reported between 6 and 12 months ago and 8% reported less than six months ago. Duration of time since the child's OHP lived with the child was associated with eligibility for FSM, but not with other independent variables. Families where the child was eligible for FSM were more likely to report that the OHP stopped living with the child over two years ago (71%) compared to those not eligible (59%). Families not eligible for FSM were twice as likely to report that the OHP stopped living with the child between six and twelve months ago (14%) compared to those eligible for FSM (7%). In summary, children who were eligible for FSM in year 1 were more likely to have an OHP, more likely to never have lived with that OHP and, where they had lived with them at some point, this was more likely to have been prior to starting school.

4.7.2 Contact according to main informant data

This and the following section provide data on four measures of contact between OHPs and children that were collected from main informants. These four variables are:

1. Term time contact frequency:

Main informants in the child's main household were asked 'During school term time, how often does *Child* usually see their other parent face to face?'. Of children who had had

¹⁹ The top two income categories (£60,000 to £89,999 per annum and £90,000 and above per annum) have been collapsed here for reasons of sample size and statistical disclosure control.

any contact with their OHP in the last year, most saw their OHP either 'every day or nearly every day' (24%) or 'at least once or twice per week' (43%), with 14% seeing their OHP at least once a fortnight, 6% at least once a month, and 3% at least once a term. One in ten children did not see their OHP at all during term time.

2. Term time overnight stays:

In relation to overnight stays, according to the main informant, 57% of children who saw their OHP during term time stayed overnight with them. Of these, 17% lived with their OHP for about 50% of the time. Forty-three per cent stayed overnight at least once per week; 28% stayed overnight at least once per fortnight, 8% stayed at least once per month and 3% stayed overnight once per term or less.

3. Holiday overnight stays:

According to the main informant, 59% of children had overnight stays with their OHP during the holidays.

4. Proportion of holidays spent with OHP:

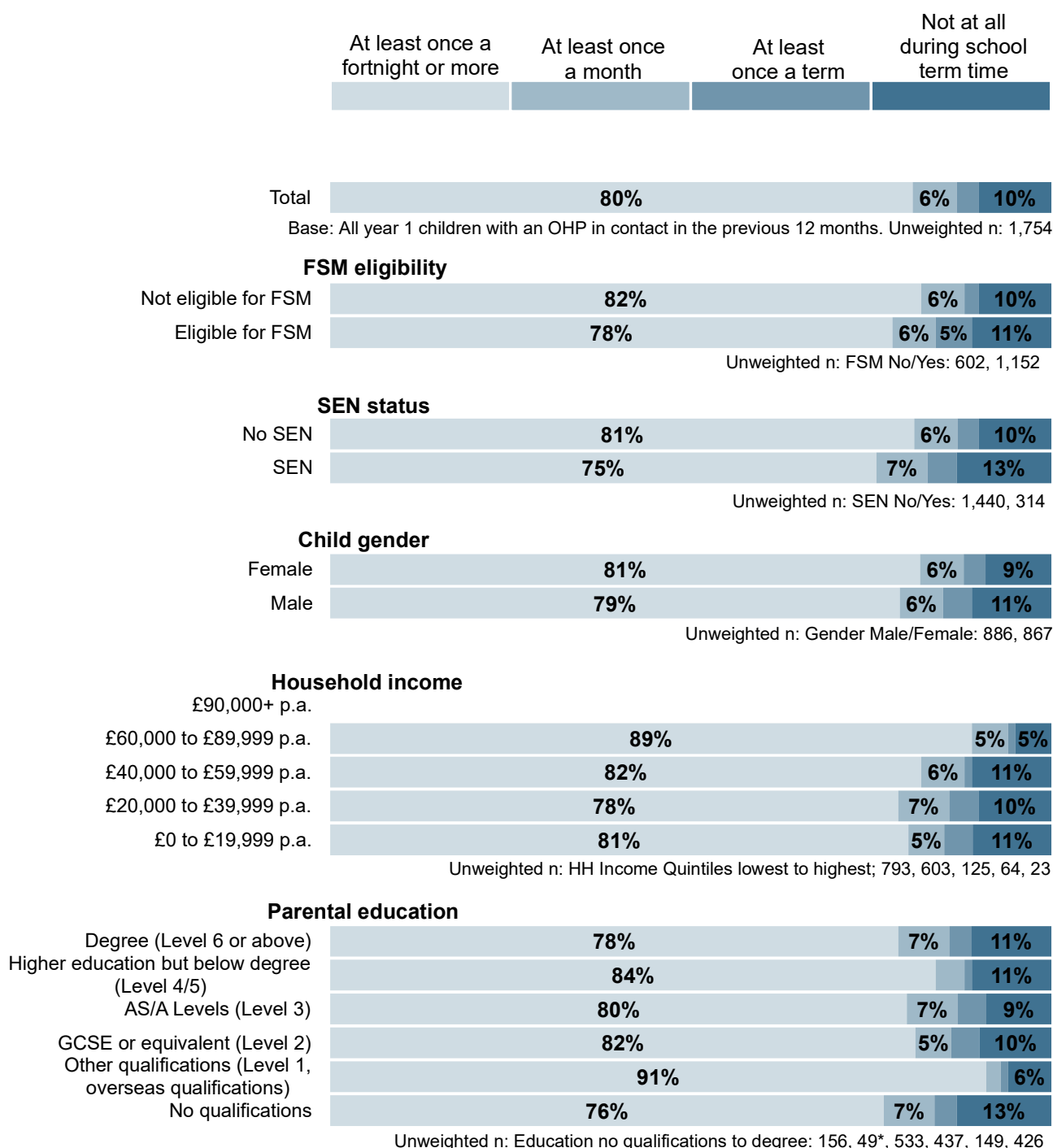
Just 7% of children stayed with their OHP for more than one-half of the holidays, with the most frequently selected category being 'less than a quarter' (36%). Just over one-quarter of children (26%) stayed with their OHP for about one-half of the holidays, 14% for around one-third and 18% about one-quarter.

4.7.2.1 Contact according to main informant data, by socio-demographic characteristics

Overall, patterns of contact and contributions made by OHP were associated with FSM, household income and, to a lesser extent, SEN status.

As demonstrated in Figure 32, frequency of term time contact between children and OHPs was associated with eligibility for FSM, main household income, and main household parental education levels. Children in main households eligible for FSM were slightly less likely to see their OHP at least once per week (63%) compared to children not eligible for FSM (69%). Children with SEN also saw their OHP overall slightly less frequently than children with no SEN. Children in main households in the higher income quintile were less likely to never see their OHP during term time and saw their OHP slightly more frequently overall. The association between main household parental education and frequency of term time contact demonstrated non-linear differences between groups. Children in main households in both the lowest and highest education groups (no qualifications and degree or above) saw their OHP slightly less overall than children in the groups in between.

Figure 32: Frequency of OHP term time contact with child according to main informant, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey. Data is missing (suppressed) for the £90,000+ category for reasons of SDC (unweighted base n<30).

As shown in Figure 33, children eligible for FSM were less likely to stay overnight during term time (49% compared to 63% of non-FSM). They also stayed overnight less frequently than children not eligible for FSM. These children were half as likely (11%) to live with their OHP for around half the time compared to children not eligible for FSM (22%).

Children with SEN (42%) were less likely to stay overnight with their OHP compared to those with no SEN (59%). Autistic children were the least likely of any SEN type group to stay overnight (33%). While there was no association between frequency of overnight stays and SEN status or SEN type, these analyses were affected by small sample sizes, especially in relation to SEN type.

Children in main households in the lowest income quintile were the least likely to stay overnight, with 49% of this group staying overnight compared to 80% of those in the middle income quintile and 79% in main households with an income of £60,000 or above.²⁰ Children in main households with the lowest incomes were also less likely to live with their OHP for around half the time compared to those in higher income quintiles. Children in the top two income quintiles were more than four times as likely to live with their OHP for half the time (38%) compared to those in the lowest (9%).

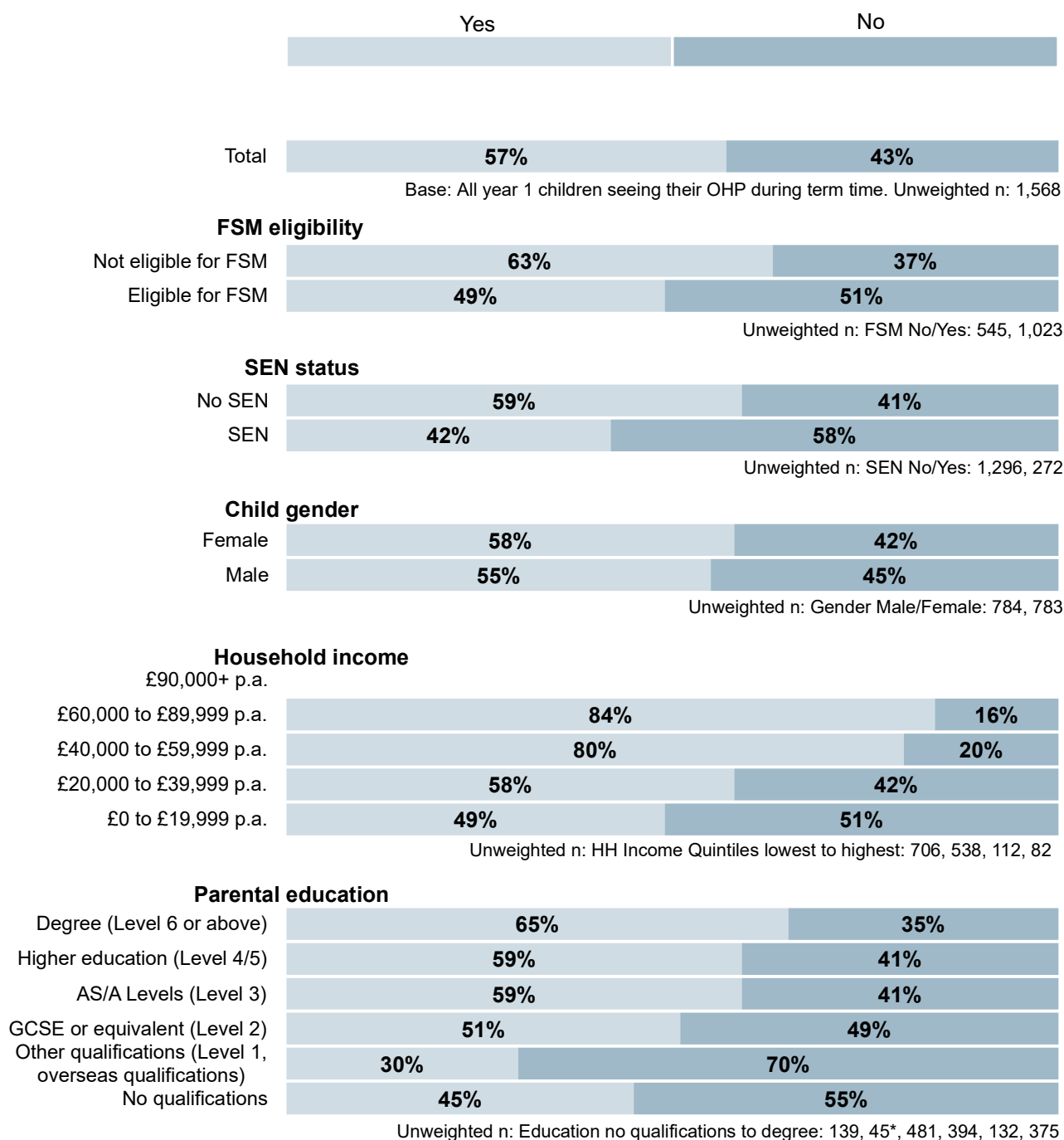
Similar patterns were observed in relation to main household parental education categories, with 45% of children in the lowest qualifications group (no qualifications) staying overnight during term time, compared to 65% in the highest qualifications group (degree or above). Children in main households with parents with degree level qualifications or above were more than three times as likely to live with their OHP for around half the time (26%) compared to children in main households with parents with no qualifications (8%). The proportion of children living with their OHP for around half the time increased incrementally alongside increases in main household parent education.

Whether or not the child stayed overnight during the holidays was associated with FSM eligibility, SEN status, SEN type, household income and main household parental education. The amount of time spent staying at the OHP's house during the holidays was not associated with FSM eligibility but was associated with SEN, SEN type, main household income and main household parental education.

Children with SEN were more than twice as likely to stay for more than half of the holidays (14%) than children with no SEN (6%). They were 10 percentage points less likely to stay about half of the holidays with their OHP (17%) compared to children with no SEN (27%).

²⁰ The top two income quintiles (£60,000 to £89,999 per annum and £90,000 and above per annum) have been collapsed here for reasons of sample size and statistical disclosure control.

Figure 33: Overnight term time stays with OHP according to main informant, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey. Data is missing (suppressed) for the £90,000+ category for reasons of SDC (unweighted base n<30).

4.7.3 Financial and material contributions according to main informant data

The main informant was asked whether the OHP had contributed any money to the child's maintenance in the previous six months as well as asking whether the OHP 'ever buys toys, clothes or equipment for *Child* apart from on special occasions like birthdays'.²¹ Just under one-half, 45%, said that regular payments were made and a further 19% reported irregular payments from the OHP. No payments from the OHP were reported by 35% of main informants.

Around three-fifths (61%) of main informants reported that the OHP did buy clothes, toys or equipment outside of special occasions. Of these, 16% reported that the OHP bought clothes, toys or equipment once per week; 43% reported that they did so once per month, 25% at least once every three months and 16% less often than once every three months.

4.7.4 Financial and material contributions by socio-demographic characteristics according to main informant data

Financial and material contributions by OHPs, as reported by main informants, were associated with nearly all independent variables. Financial and material contributions are likely to be driven by a dynamic interaction between OHP characteristics, main household characteristics, and factors relating to the OHP-main household parent relationship. This section therefore describes the findings in relation to the five key independent variables, while acknowledging that results for main household characteristics such as income and education are of uncertain utility.

OHPs of children eligible for FSM (according to main household eligibility) were less likely to contribute financially: 42% contributed regular payments, compared to 49% of OHPs where the child was not eligible for FSM. They were also less likely to contribute toys, clothes or equipment: 57% contributed these, compared to 65% where the child was not eligible for FSM.

A similar pattern emerged according to SEN status. According to the main informant, OHPs of children with SEN were less likely to contribute financially: 36% of OHPs of children with SEN had contributed regular payments over the previous 6 months, compared to 47% of OHPs of children with no SEN. They were also less likely to buy clothes, toys and equipment: 53% of OHPs of children with SEN bought these, compared to 63% of OHPs of a child with no SEN.

A complex interplay was observed between provision of material and financial resources and main household income quintile. OHPs of children in the lowest (42%) and highest

²¹ These questions were asked within the self-completion section.

(exact proportion suppressed)²² household income quintiles were the least likely to make regular financial contributions, while those in the third and fourth highest quintiles were most likely to do so (both 54%), according to main informants. OHPs of children in the highest income quintile were the most likely not to make any contributions, followed by those in lowest and fourth-highest quintiles (both 37%), while around one-third of OHPs of children in the second and third income quintiles (32% and 33% respectively) made no contributions. OHPs of children in the second-lowest income quintile were least likely to provide clothes, toys and equipment (57%, compared to 63% in the lowest and 75% in the fourth-highest).

A non-linear relationship was also observed in relation to main household education. Broadly, OHPs connected to main households with the highest levels of education (Higher education but below degree level (level 4/5) and Degree level (level 6 or above)) were most likely to contribute regular financial payments (49%) and the least likely to not make any payments (33% and 31% respectively). However, 50% of OHPs connected to households with 'other' qualifications (which include overseas as well as level 1 qualifications) also made regular financial payments. This group were also most likely to contribute equipment, toys and clothes (76%), followed by OHPs connected to main households with a degree or above (65%). OHPs connected to main households with higher education (55%) and with no qualifications (57%) were the least likely to provide clothes, toys and equipment.

4.7.5 Financial and material contributions according to OHP data

The study also asked OHPs themselves whether they had contributed any money to the child's maintenance in the previous six months and whether they ever bought toys, clothes or equipment for the child, apart from on special occasions like birthdays. Over three-quarters (78%) of OHPs who saw their child at least every two weeks reported making regular payments, with 11% reporting making irregular payments and a further 11% reporting not making payments. Almost all (98%) OHPs reported buying clothes, toys or equipment for their child, with 31% of these reporting buying resources for the child at least once per week, 54% at least once per month, 14% at least once every three months and 2% less often than every three months.

Making financial contributions was associated with OHP household income. OHPs in the lowest income category (£0-19,999 per annum) were less likely to make regular payments (62%) compared to OHPs earning £40,000 or over per annum (86%). OHPs in the lowest income category were also more likely to make irregular payments (18%), compared to OHPs earning £40,000 or more (4%).

²² The precise statistic of the top quintile is suppressed for reasons of statistical disclosure control. We experimented with collapsing the top two quintiles as we have done above but, in this case, it distorted the curvilinear relationship.

Buying toys, clothes or equipment was associated with whether the child was eligible for FSM (based on main household eligibility), although the difference between categories was small. One hundred per cent of OHPs of a child not eligible for FSM reported buying toys, clothes or equipment for their child, compared to 96% of OHPs of children eligible for FSM. Frequency of buying toys, clothes or equipment was not associated with any other of the independent variables.

4.8 OHP parenting style

This section draws on data collected directly from OHPs, who were asked the same parenting style questions as outlined in section 3.8 (Robinson and others, 2001). In line with both co-resident mothers and co-resident fathers, the majority of OHPs scored highly on the authoritative parenting scale, with 76% scoring 4 or above and a further 23% scoring above 3. On the whole, OHPs had low scores on the permissive and authoritarian parenting scales, with only 8% scoring above 3 on the permissive scale and 8% scoring above 2 on the authoritarian scale.

Parenting style scores were not associated with any of the independent variables used in the analysis; however, again this may be related to small sample size at the OHP level.

4.9 OHP relationship and activities with child and school engagement

In the online questionnaire, OHPs themselves were asked a series of questions about their time spent with the child, including activities, talking about things that matter, eating together as well as engagement with school parents' evenings.

More than one-half (57%) of OHPs who saw their child at least once per fortnight reported that their child talked to them about things that matter most days, with a further 28% reporting this happening more than once a week. Twelve per cent (12%) reported their child talking to them about things that matter less than once per week and 3% reported this happening 'hardly ever' (Table 20).

Most OHPs reported having had an evening meal with their child between 1 and 5 times in the past week: 43% reported 1-2 times and 34% reported 3-5 times. Sixteen per cent reported eating a meal 6-7 times, while 7% reported not eating a meal with their child at all in the previous seven days.

OHPs were asked 'How often do you and child spend time together on leisure activities or outings, such as going to the park or zoo, going to the movies, sports or have a picnic?'. Almost two-thirds (62%) of OHPs reported doing so at least once per week, with a further third (32%) reporting several times per month and 6% reporting once per month or less.

Finally, OHPs were asked about attendance at parents' evenings. As with co-resident mothers and fathers, OHPs were asked:

'In last six months, have you been to a parents' evening, an information session or a similar event at *Child's* school?'

Almost two-thirds, 62%, of OHPs reported that they had attended a parents' evening, information session or similar event at their child's school. This compares to 28% who had not and 9% where these events had not yet taken place. Attendance at school parents' evenings was not associated with any demographic or OHP variables.

4.9.1 OHP relationship and activities with child and school engagement, by socio-demographic characteristics

The measures of OHP activities and engagement as detailed in Table 20 were associated with parent involvement and, in some cases, with FSM eligibility, but not with the other independent variables.

Frequency of eating an evening meal with the cohort child was associated with the child's eligibility for FSM (based on their main household eligibility). OHPs of children eligible for FSM were more likely to report not eating any meals with their child in the prior seven days (13% compared to 2% of OHPs of children not eligible for FSM). They were also slightly less likely to report eating a meal 1-2 times (41% compared to 44% of OHPs of children not eligible for FSM) or 3-5 times (29% compared to 39% of OHPs of children not eligible for FSM).

Spending time on leisure activities or outings was associated with child FSM eligibility. OHPs of children eligible for FSM were less likely to report taking their child on leisure activities or outings at least once per week compared to OHPs of children not eligible for FSM (56% compared to 68%) and more likely to take them once per month or less (13% compared to <1%).

The frequency with which OHPs reported their child talking to them about things that matter was not associated with FSM eligibility.

Attendance at school parents' evenings was not associated with any demographic or OHP variables.

Table 20: Talking about things that matter, eating an evening meal and social activities (OHP data), by FSM eligibility

Activity	FSM eligible (%)	<i>Unweight ed Base</i>	<i>Weighte d Base</i>	FSM not eligible (%)	<i>Unweight ed Base</i>	<i>Weighte d Base</i>	All OHPs (%)	<i>Unweight ed Base</i>	<i>Weighte d Base</i>
Talking about things that matter: Most days	56	172	143	58	126	155	57	298	298
Talking about things that matter: More than once a week	25	172	143	30	126	155	28	298	298
Talking about things that matter: Less than once a week	13	172	143	11	126	155	12	298	298
Talking about things that matter: Hardly ever	6	172	143	1	126	155	3	298	298
Eating an evening meal in past 7 days: None	13	172	144	2	126	155	7	298	297
Eating an evening meal in past 7 days: 1-2 times	41	172	144	44	126	155	43	298	297
Eating an evening meal in past 7 days: 3-5 times	29	172	144	39	126	155	34	298	297
Eating an evening meal in past 7 days: 6-7 times	17	172	144	15	126	155	16	298	297
Leisure activities or outings: Once a month or less	13	172	144	<1	126	154	6	298	299
Leisure activities or outings: Several times a month	31	172	144	32	126	154	32	298	299
Leisure activities or outings: At least once a week	56	172	144	68	126	154	62	298	299

Base: OHPs of year 1 children who saw the child at least once per fortnight

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

4.10 Summary

This section has explored the role and involvement of OHPs with their child from data reported by both the co-resident parent and the OHP themselves. Given the growing evidence base on the role played by fathers in children's education and wellbeing outcomes, independent of maternal effects, the baseline figures provided in this section provide an important picture of contact and activities between OHPs and their children. As throughout much of the rest of the report, the OHP data makes clear that an association is present between eligibility for FSM and multiple measures of OHP involvement. There is also, as outlined, an association between the child having SEN and some measures of OHP involvement.

Of all households, 19% of cohort children had an OHP. This was more likely for children eligible for FSM. The majority of OHPs were male, born in the UK and educated to below degree level. In OHP households, 81% did not live with a partner and 28% reported living with a child (of which 55% included the cohort child). Three-quarters of OHPs had a household income of below £39,999, three-quarters reported their physical health as good or very good, one-third reported depression and 28% reported anxiety. There appeared to be differences between co-resident parents and OHPs in relation to health and mental health measures. However, these were not tested for statistical significance.

According to main informants, the majority of OHPs saw the cohort child every day (24%) or at least once or twice per week (43%). Fifty-seven per cent stayed overnight with the OHP during term time and 59% stayed overnight during the holidays. Frequency of contact was lower in households where the child was eligible for FSM as well as where the child had SEN. According to main informants, 45% of OHPs made regular payments and 61% bought clothes, toys or equipment for the cohort child. Main households with a child eligible for FSM and with SEN were less likely to have an OHP who made regular payments and financial contributions.

OHPs themselves (those whom the main informant stated saw their child at least once per fortnight) reported contributing regular payments for the child's expenses (78%), buying clothes, toys or equipment for their child (98%) and attending parents' evenings (62%). The key socio-demographic factor related to OHP involvement was the child's FSM eligibility (as based on their main household). FSM eligibility has been used as a proxy for disadvantage throughout this report, indicating that the child's main household parent(s) were receiving financial support from the government (e.g. Universal Credit or income support). A lower proportion of OHPs with children eligible for FSM reported eating meals together and participation in leisure activities.

As with co-resident fathers and mothers, the majority of OHPs had high scores on the 'authoritative' scale, meaning they were warm and supportive but also set and upheld rules for their child. OHPs had low scores on the authoritarian and permissive scales.

Overall, the information provided by OHPs about their contact with their child, their own household circumstances, and their own wellbeing offers valuable additional insights into the factors influencing the child's life at this age. The study provides a methodological approach to collecting a small but robust sample (see the accompanying study Technical Report: Wood and others, 2026).

5. Home environment in the child's main household

Key findings

- 83% of main informants reported engaging in home learning activities 3 to 4 days per week or more. This includes 23% of main informants who reported higher engagement of 4 to 7 days per week.
- main informants in households eligible for free school meals (FSM), with a child with special educational needs (SEN), with lower household income and lower levels of parental education were more likely to report lower levels of home learning activity.
- in general, households eligible for FSM, with a child with SEN and lower household income tended to engage in more drawing, painting, singing songs and educational activities on an electronic device compared to households not eligible for FSM, who engaged more in reading with their child and talking about feelings.
- most households had books in their home. A larger proportion of households with a higher income, not eligible for FSM, with a child with no SEN and with higher co-resident parental education had more than 100 books.
- attendance at parents' evenings was higher in households not eligible for FSM, child with no SEN, higher income and higher co-resident parental education.
- those not eligible for FSM, with higher incomes, and higher co-resident parental education were rated by teachers as more interested in their child's education.
- a larger proportion of co-resident fathers and mothers engaged with learning activities, such as reading with the child and helping them learn numbers and alphabet, when they were not eligible for FSM, had a child with no SEN, higher income and with higher co-resident parental education. In contrast, co-resident mothers with lower income and no qualifications were more likely to eat evening meals with the child more frequently.
- households eligible for FSM, with a child with SEN, with lower income and lower co-resident parental education were more likely to have a home environment categorised as noisy, busy and disorganised.
- regarding children's digital environments: higher screen time was reported by households eligible for FSM, with a child with SEN and where the cohort child was a boy. Device use varied between demographic characteristics. Those eligible for FSM and where the cohort child was a boy reported more games console use. Lower income households and those with lower levels of parental education reported more smartphone use than their counterparts.

5.1 Introduction

This chapter outlines findings in relation to children's main home learning environment. It also presents findings in relation to co-resident and Own Household Parent (OHP) parental engagement with children's education, the activities parents did with their child, main household disorganisation and the use of digital technology in the home. As throughout the report, these measures are examined by whether the household was eligible for free school meals (FSM), whether the child had special educational needs (SEN),²³ household income, co-resident parental education and child gender.

Research suggests a positive relationship between children's home learning environment (such as how often the child is read to, engaged in painting, visits the library and is helped with learning), and cognitive abilities and educational outcomes (Dickerson and Popil, 2016; Sammons, Toth and Sylva, 2015; Parsons, Schoon and Vignoles, 2013). Evidence also suggests that having more books and frequent reading is associated with higher vocabulary, literacy, and numeracy scores. This association was strongest in more deprived areas and was similar to having a parent with a post-graduate degree (Classick, Hope and Sharp, 2021; Sullivan, Moulton and Fitzsimons, 2021).

Parents also play a role in children's socio-emotional development. Parents having regular back-and-forth discussions with their child about feelings has been identified as related to emotion identification as well as educational attainment (Classick, Hope and Sharp, 2021; Quílez-Robres, Moyano and Cortés-Pascual, 2021). In addition, spending time and having frequent family meals together are associated with positive dietary, health and behavioural outcomes (Jones, 2018). Parental involvement, of quality rather than frequency, in active and creative play at age five years has been linked to lower behavioural problems in boys and girls (Kroll and others, 2016).

Poverty and lower household income can limit parents' time and capacity to be involved in a child's education. Financial hardship may force parents to work longer hours, take on multiple jobs, or accept irregular/inflexible work schedules. This reduces the time they have available to support learning at home, and even when the time is available, the stress and mental load associated with financial insecurity can affect parents' capacity to engage meaningfully with their child's education. Moreover, low-income families may lack access to educational resources such as books, internet, or quiet spaces, which can hinder parental involvement (Hartas, 2012).

Data from the Millennium Cohort Study found the involvement of non-resident parents, specifically fathers, was associated with higher cognitive and educational scores. This association was stronger in families with fewer household resources. The involvement of non-resident fathers is thought to potentially compensate for a lack of cultural capital (e.g.

²³ As recorded on the NPD / without SEN identified on the NPD / registered as non-SEN on the NPD

maternal education, and books in the home) but not for a lack of household resources (e.g. family income and occupation) (Tanskanen and Erola, 2017).

In common with the rest of this report, all differences noted have been tested for statistical significance unless otherwise stated. Analysis is limited to the relationship between two variables and does not control for other factors. Please refer to the reporting conventions section (1.2.3) for more information.

5.2 Home learning environment

5.2.1 Home learning activities

The main informant was asked in a typical week how often they or another person in the household do activities that promote home learning with their child. These activities included:

- reading to the child from a book or e-book
- telling the child a story (not from a book)
- drawing pictures or painting
- having back-and-forth conversation about how the child feels and why they feel that way
- singing songs and nursery rhymes or reciting poems
- imaginative or pretend play (e.g. playing the role of a chef or shopkeeper)
- playing with numbers, counters, measuring or shapes
- doing things outside together like walking, ball games, swimming or cycling
- doing activities with the child that help them to learn letters of the alphabet
- doing activities with the child that help them to learn to read words or sentences
- doing activities with the child that help them to learn numbers
- doing educational activities on a computer, tablet or smartphone (e.g. using an educational app)
- going to the library.

The most common activities that co-resident parents engaged with five to seven days a week were having conversations with their child about their feelings (71%), reading with their child (59%), helping their child to read (47%), and singing songs and rhymes (44%).

Less common activities were helping their child with learning the alphabet, educational activities on an electronic device, and telling their child a story. Thirteen to fourteen per

cent of families had never done these activities. The least common activity was going to the library, with one-half (52%) of households never having done this with their child.

The frequency of participation in each of the 13 activities was pooled together to create a Home Learning Environment (HLE) index (Melhuish and others, 1999). Existing evidence suggests that the HLE index is a well-validated measure for measuring home learning activities (Melhuish and others, 2008). Scores range from 0 to 52 and are categorised into low, medium and high:

- low, relating to scores 26 and under
- medium for scores 27 to 39
- high for scores 40 and over.

A low HLE score means engagement with home learning activities of two days per week or less. Medium means engaging with home learning activities 3-4 days per week, while high means 4 to 7 days per week. In total, 23% had a high, 60% had a medium and 17% of families had a low home learning environment (see Figure 34). The mean HLE score was 33.64.

5.1.1.1 Demographic differences in home learning environment

Households eligible for FSM were more likely to have a low HLE score (24% compared to 16% not eligible for FSM). The same was true for households with a child with SEN (22% compared to 16% without a child with SEN), households where the cohort child was a boy (19% compared to 14% where the cohort child was a girl), lower income households (21% compared to 13% higher income) and households with lower co-resident parental education (36% compared to 13% degree and above). Of households with a child with SEN, the lowest HLE score was where the primary SEN was recorded as autism (33%).

FSM eligibility

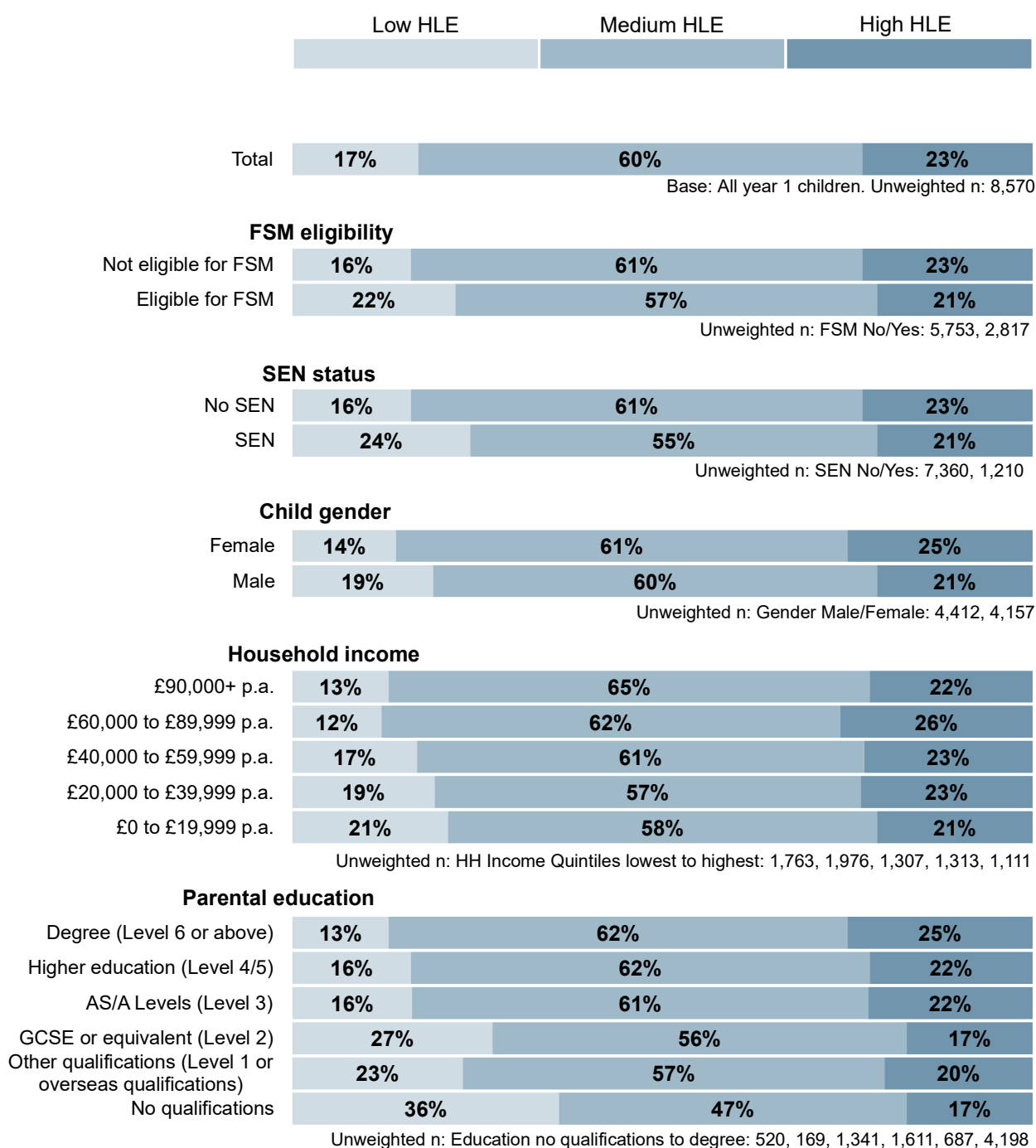
Across individual activities a larger proportion of households eligible for FSM reported drawing or painting with their child, singing songs, engaging in outside activities, and engaging in educational activities on an electronic device five to seven days a week compared to households not eligible for FSM (see Table 21).

A larger proportion of households not eligible for FSM reported reading to their child, having conversations with their child about their feelings and helping their child to read five to seven days a week compared to households eligible for FSM.

Roughly equal proportions of households eligible and not eligible for FSM reported telling their child a story, engaging in learning the alphabet, engaging with imaginative play, playing with numbers and going to the library.

Across the individual activities, with the exception of helping their child to learn letters of the alphabet, a larger proportion of those eligible for FSM reported never engaging with home learning activities compared to those not eligible for FSM (not listed in the table).

Figure 34: Home learning environment index, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Table 21: Engaged in home learning activities 5 to 7 days a week, by FSM eligibility

Activity	Eligible for FSM (%)	Not eligible for FSM (%)
Read to your child from a book or e-book	43	63
Tell child a story (not from a book)	20	19
Draw pictures or paint	32	29
Have a back-and-forth conversation about how child feels and why they feel that way	68	71
Sing songs and nursery rhymes or recite poems	47	44
Imaginative or pretend play (e.g. playing the role of a chef or shopkeeper)	36	34
Play with numbers, counters, measuring or shapes	24	23
Do things outside together like walking, ball games, swimming or cycling	30	27
Do activities with your child that help them to learn letters of the alphabet	28	28
Do activities with your child that help them to learn to read words or sentences	38	49
Do activities with your child that help them to learn numbers	33	31
Do educational activities on a computer, tablet or smartphone (e.g. use an educational app)	25	18
Go to the library	<1	<1
<i>Unweighted Base</i>	<i>2,836</i>	<i>5,778</i>
<i>Weighted Base</i>	<i>1,545</i>	<i>7,072</i>

Base: All year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

SEN status

A larger proportion of households with a child with no SEN reported reading to their child, drawing or painting with their child, having conversations with their child about their feelings, engaging in outside activities, and helping their child to read five to seven days a week compared to households with a child with SEN (see Table 22).

Households with a child with SEN were more likely to report helping their child to learn numbers, engage in educational activities on an electronic device, and go to the library five to seven days a week compared to households with a child with no SEN.

A larger proportion of households with a child with no SEN reported reading to their child, drawing or painting with their child, having conversations with their child about their feelings, engaging in outside activities, and helping their child to read five to seven days a week compared to families with a child with SEN.

Roughly equal proportions of households with and without a child with SEN reported telling their child a story, engaging with imaginative play and playing with numbers five to seven days a week. There was no difference between households that had a child with SEN or not in whether they engaged in learning the alphabet with their child.

A larger proportion of households with a child with SEN reported never engaging with all activities asked about, except learning the alphabet, compared to those with a child with no SEN (not listed in the table).

Table 22: Engaged in home learning activities 5 to 7 days a week, by SEN status

Activity	SEN (%)	No SEN (%)
Read to your child from a book or e-book	51	60
Tell child a story (not from a book)	21	19
Draw pictures or paint	27	30
Have a back-and-forth conversation about how child feels and why they feel that way	62	72
Sing songs and nursery rhymes or recite poems	47	44
Imaginative or pretend play (e.g. playing the role of a chef or shopkeeper)	35	34
Play with numbers, counters, measuring or shapes	31	23
Do things outside together like walking, ball games, swimming or cycling	25	28
Do activities with your child that help them to learn letters of the alphabet	31	28
Do activities with your child that help them to learn to read words or sentences	40	48
Do activities with your child that help them to learn numbers	36	31
Do educational activities on a computer, tablet or smartphone (e.g. use an educational app)	24	19
Go to the library	1	<1
<i>Unweighted Base</i>	<i>1,225</i>	<i>7,389</i>
<i>Weighted Base</i>	<i>1,014</i>	<i>7,600</i>

Base: All year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Child gender

A larger proportion of households where the cohort child was a girl reported drawing or painting with them, having conversations with their child about their feelings, singing songs, and engaging in imaginative play, five to seven days a week compared to households with boys (see Table 23).

A larger proportion of households with boys reported engaging in outside activities, playing with numbers and helping their child to learn numbers five to seven days a week compared to households with girls.

When comparing households where the cohort child was a boy and those where the cohort child was a girl, there was no difference in whether co-resident parents reported telling their child a story, helping their child learn the alphabet, engaging in educational activities on an electronic device or visiting the library.

A larger proportion of households where the cohort child was a boy reported never engaging in all activities asked about, compared to those where the cohort child was a girl (not listed in the table).

Household income

Table 24 shows that a larger proportion of co-resident parents with higher incomes reported reading to their child, having conversations with their child about their feelings, engaging with outside activities and helping their child to read five to seven days a week compared to co-resident parents with lower household incomes.

A larger proportion of co-resident parents with lower household incomes reported telling their child a story, drawing and painting, singing songs and reciting poems, playing with numbers and engaging with educational activities on a phone with their child five to seven days a week, compared to co-resident parents with higher incomes.

There were no differences in engaging in imaginative play, helping their child to learn numbers, helping their child to learn letters of the alphabet, or going to the library five to seven days a week by household income.

Across the individual activities, co-resident parents with lower household income were more likely to never have engaged in these activities. The exception to this was helping their child learn the alphabet, where households with a higher household income were more likely to report never doing this activity.

The patterns observed according to household income were similar to those reported by FSM eligibility. A larger proportion of co-resident parents with higher household incomes reported reading to their child, having conversations with their child about their feelings,

and helping their child to read five to seven days a week, compared to those with lower incomes. A larger proportion of households with higher incomes also reported engaging with outside activities, compared to households with lower incomes.

In contrast, larger proportions of those with lower household income reported drawing and painting, and engaging with educational activities digitally on a phone with their child, compared to those with higher incomes. In addition, slightly larger proportions of those with lower household incomes reported singing songs and reciting poems, telling their child a story, and playing with numbers 5-7 days per week, compared to households with higher incomes.

Table 23: Engaged in home learning activities 5 to 7 days a week, by child gender

Activity	Boy (%)	Girl (%)
Read to your child from a book or e-book	58	60
Tell child a story (not from a book)	20	19
Draw pictures or paint	23	37
Have a back-and-forth conversation about how child feels and why they feel that way	69	73
Sing songs and nursery rhymes or recite poems	39	50
Imaginative or pretend play (e.g. playing the role of a chef or shopkeeper)	32	36
Play with numbers, counters, measuring or shapes	25	22
Do things outside together like walking, ball games, swimming or cycling	29	27
Do activities with your child that help them to learn letters of the alphabet	28	28
Do activities with your child that help them to learn to read words or sentences	46	48
Do activities with your child that help them to learn numbers	34	30
Do educational activities on a computer, tablet or smartphone (e.g. use an educational app)	20	19
Go to the library	<1	<1
<i>Unweighted Base</i>	<i>4,182</i>	<i>4,431</i>
<i>Weighted Base</i>	<i>4,226</i>	<i>4,389</i>

Base: All year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Table 24: Engaged in home learning activities 5 to 7 days a week, by co-resident parent household income

Activity	£0- £19,999 (%)	£20,000- £39,999 (%)	£40,000- £59,999 (%)	£60,000- £89,999 (%)	£90,000+ (%)
Read to your child from a book or e-book	48	51	60	70	73
Tell child a story (not from a book)	21	20	18	20	17
Draw pictures or paint	32	32	30	27	23
Have a back-and-forth conversation about how child feels and why they feel that way	68	71	71	73	73
Sing songs and nursery rhymes or recite poems	47	45	44	46	43
Imaginative or pretend play (e.g. playing the role of a chef or shopkeeper)	32	36	37	34	33
Play with numbers, counters, measuring or shapes	24	26	22	22	21
Do things outside together like walking, ball games, swimming or cycling	28	27	27	27	32
Do activities with your child that help them to learn letters of the alphabet	28	27	27	31	29
Do activities with your child that help them to learn to read words or sentences	39	43	49	55	56
Do activities with your child that help them to learn numbers	33	31	33	32	32
Do educational activities on a computer, tablet or smartphone (e.g. use an educational app)	22	22	19	18	13
Go to the library	1	<1	1	<1	<1
<i>Unweighted Base</i>	<i>1,773</i>	<i>1,981</i>	<i>1,312</i>	<i>1,314</i>	<i>1,117</i>
<i>Weighted Base</i>	<i>1,349</i>	<i>1,835</i>	<i>1,484</i>	<i>1,520</i>	<i>1,345</i>

Base: All year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Co-resident parental educational attainment

A larger proportion of households where highest level of parental education was degree-level or above reported reading to their child, having conversations with their child about their feelings, singing songs and reciting poems, engaging in imaginative play, helping their child learn the alphabet, helping their child to read, and helping their child to learn numbers five to seven days a week than households with lower levels of parental education (see Table 25).

A larger proportion of co-resident parents with lower levels of educational attainment, defined as GCSE level or below, reported engaging in educational activities on an electronic device five to seven days a week than households with higher levels of parental education.

There were no differences between telling the child a story, drawing or painting, playing with numbers and going to the library five to seven days a week by parental education level.

Across the individual activities, a larger proportion of co-resident parents with no qualifications reported never having engaged in any of these activities. The exception to this was helping their child learn the alphabet, which was similar by parental education level.

5.2.2 Number of children's books at home

The main informant was asked how many children's books were in their home, including books they owned and any borrowed from the library or school. Twenty-eight per cent of the households had more than 100 children's books, 27% had 51 to 100, and 45% had one to 50 (see Figure 35).

5.2.2.1 Demographic differences in children's books at home

A smaller proportion of households eligible for FSM (14%) reported having more than 100 children's books in the home compared to those not eligible for FSM (31%). Similarly, a smaller proportion of households with a child with SEN (19%) reported having more than 100 children's books in the home compared to those with a child with no SEN (29%). Among those with SEN, this was lowest in children with a cognition and learning difficulty (15%).

Overall, boys and girls had a similar number of children's books, although there was a slightly larger proportion of households with girls (29%) having 51 to 100 children's books than those with boys (25%).

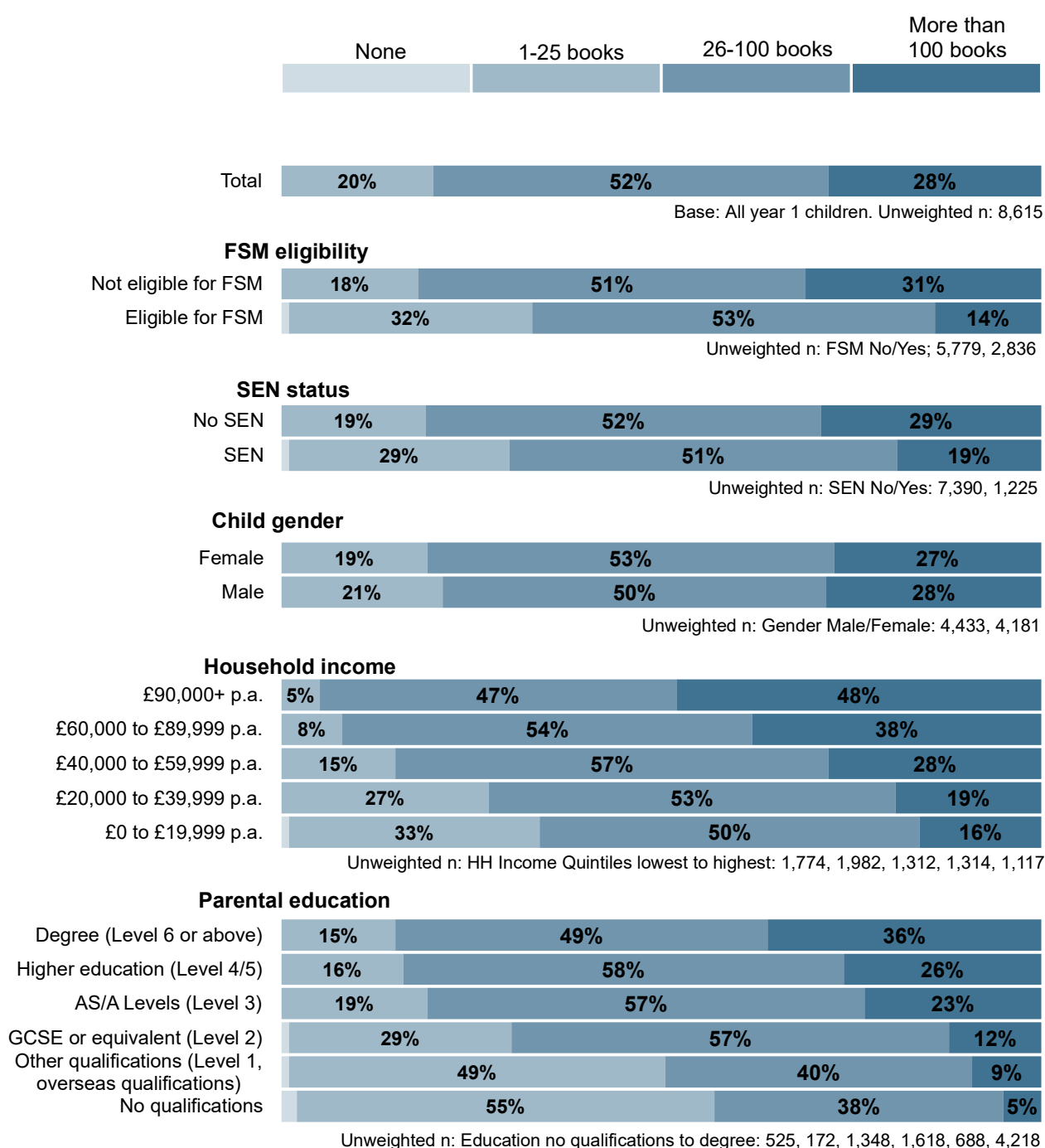
Table 25: Engaged in home learning activities 5 to 7 days a week, by co-resident parental education

Activity	None (%)	Other (%)	GCSE or equiv (%)	AS/A Levels (%)	Higher education (%)	Degree or above (%)
Read to your child from a book or e-book	32	48	43	55	56	67
Tell child a story (not from a book)	18	15	17	19	19	21
Draw pictures or paint	29	38	28	32	33	28
Have a back-and-forth conversation about how child feels and why they feel that way	62	73	63	70	71	73
Sing songs and nursery rhymes or recite poems	38	40	44	49	48	43
Imaginative or pretend play (e.g. playing the role of a chef or shopkeeper)	27	29	31	37	39	34
Play with numbers, counters, measuring or shapes	21	32	21	23	24	25
Do things outside together like walking, ball games, swimming or cycling	24	31	27	28	27	28
Do activities with your child that help them to learn letters of the alphabet	22	31	26	26	31	29
Do activities with your child that help them to learn to read words or sentences	28	41	35	48	46	52
Do activities with your child that help them to learn numbers	23	32	27	32	35	33
Do educational activities on a computer, tablet or smartphone (e.g. use an educational app)	21	26	22	19	20	18
Go to the library	1	1	<1	<1	<1	<1
<i>Unweighted Base</i>	526	172	1,348	1,617	688	4,217
<i>Weighted Base</i>	391	139	1,098	1,529	671	4,747

Base: All year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 35: Children's books in the home, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

The number of children's books within the household increased as household income quintile and co-resident parental education increased. Around one-half (48%) of the co-resident parents earning £90,000 and over reported having more than 100 children's books in the home compared to 16% in those earning under £19,999. Thirty-six per cent of households where the highest level of co-resident parent education was degree and above reported having over 100 children's books, compared to 5% of those with no recorded qualifications.

Around 1% of households in each of the following groups reported having no books in the home: those eligible for FSM, with a child with SEN, in the lowest income quintile, and in the lowest parental education categories.

5.2.3 Private tutoring

The main informant was asked if their child had received any private tutoring in maths, English or other academic subjects during the school term that was organised by the parent, carer or another family member. See section 6.6 for information on tutoring within the school environment.

Of those enrolled in full-time education (99.6%), 4% of co-resident parents reported that their child received private tutoring.

5.2.3.1 Demographic differences in private tutoring

Similar proportions of children eligible and not eligible for FSM received private tutoring (3% of children eligible for FSM, compared to 4% of children not eligible for FSM). There were no differences across households by SEN or child gender.

Households with higher income were slightly more likely to report that their child received private tutoring compared to those with lower household income (5% of families earning over £60,000 compared to 3% of families under £59,999). There was a similar association between co-resident parents' highest educational attainment and private tutoring. Five per cent of households where the highest parental education level was degree or above reported that their child received private tutoring. This compared to 2% where the highest parental education level was GCSE or equivalent, 3% for A-Level or equivalent and 3% for no recorded qualifications.

5.2.4 Parental engagement with schooling

All participating parents were asked whether they had been to a parents' evening, information session or similar event at the child's school in the last six months.

Of co-resident mothers of the child, 91% reported having attended a parents' evening or information session, while 6% had not and 3% reported that this had not taken place yet at the school.

Of co-resident fathers, 80% had attended a parents' evening or information session in the prior six months. This compared to 17% who had not and 3% where these events had not taken place yet.

5.2.4.1 Demographic differences in parental engagement with schooling

Co-resident maternal engagement with schooling

Differences were observed in demographic characteristics in co-resident maternal engagement with their child's schooling. Co-resident maternal attendance at parents' evenings and information sessions was higher in households not eligible for FSM (93%) compared to those eligible for FSM (85%). It was also higher in households with a child with no SEN (92%) compared to households with a child with SEN (86%). There was no difference according to child gender.

Household income and co-resident parental education showed a similar association. Co-resident mothers with higher household incomes (95%) and with higher household parental education (94%) were more likely to report attendance at parents' evenings and information sessions than those with lower incomes (87%) and in the lowest parental education category (no recorded qualifications, 82%).

Co-resident paternal engagement with schooling

Similar degrees of difference were also observed in co-resident paternal engagement with their child's schooling. Attendance at parents' evening and information sessions was higher in households not eligible for FSM (81%) compared to households eligible for FSM (71%).

There were no differences in co-resident paternal engagement of child's schooling according to whether or not the child had SEN or child gender.

Similarly to co-resident maternal engagement, co-resident fathers with higher incomes (88%) and with higher levels of parental education (85%) reported higher attendance to parents' evenings than those with lower incomes (74%) and lower parental education (68%).

5.2.5 Parental interest in child's education

Teachers of the cohort child were asked how interested the child's parents/carers were in the child's education. Examples of interest included attendance at parents' evenings, parental information meetings and school events and having conversations with teachers

about their child's progress. Teachers were asked to think about the child's parents as a whole – including co-resident parent/s and OHPs. For more information on the teacher survey response rate see Appendix A in section 11.1.

Teachers reported that 60% of parents seemed very interested, 28% fairly interested, 7% neither interested nor uninterested, 4% fairly uninterested and 1% uninterested.

5.2.5.1 Demographic differences in parental engagement in child's education

Teachers reported higher levels of interest for households not eligible for FSM (91% very or fairly interested) than households eligible for FSM (75%).

No differences were observed between parents of children according to SEN status or child gender.

Household income and co-resident parental education were both associated with teacher assessment of parental interest. Teachers were more likely to report parental interest for parents with higher levels of income (97%) compared to those with lower incomes (79%). There was a similar association with co-resident parental education. Teachers reported parental interest for 93% of children where the highest level of co-resident parental education was degree or above. This number decreased in linear fashion, with parental interest recorded for 67% of children where co-resident parents had no qualifications.

5.3 Co-resident parental activities with the cohort child

Co-resident parents were asked how often their child talked to them about things that matter, how many times in the last seven days they had eaten a meal together, and how often they take part in activities outside the home. Outdoor activities included leisure activities or outings outside the home such as going to the park or zoo, going to the movies, sports or having a picnic.

See section 4.9 for information about OHP activities with the cohort child.

5.3.1 Co-resident maternal activities with the cohort child

Eighty-seven per cent of co-resident mothers reported that they talked to their child most days about things that matter. Nine per cent reported this more than once a week, 2% less than once a week and 3% hardly ever.

Sixty-one per cent of co-resident mothers reported eating an evening meal six to seven times with their child in the previous seven days, 24% reported three to five times, 11% one to two times and 4% had not in the past seven days.

Nine per cent of co-resident mothers spent time with their child on activities outside the home almost every day. A further 33% reported this several times a week, 31% once a week, 20% several times a month, 7% once a month and 1% never. Overall, 72% reported engagement with activities outside the home at least once a week.

5.3.1.1 Demographic differences in co-resident maternal activities

Children talking to co-resident mothers about things that matter

A slightly larger proportion of co-resident mothers not eligible for FSM (88%) reported that their child talks to them about things that matter most days compared to those eligible for FSM (82%). Similarly, a larger proportion of co-resident mothers of a child with no SEN (89%) reported that their child talks to them about things that matter most days compared to those of a child with SEN (69%). Co-resident mothers, where the cohort child was a girl, were slightly more likely to report their child talking to them most days (90%) compared to co-resident mothers of boys (84%).

Co-resident mothers with a household income of £60,000 to £89,999 were the most likely to report that their child talks to them about things that matter most days (91%). This proportion is lower in all other income quintiles: 88% for those with an income of over £90,000, 87% for those with a household income of £20,000 to £59,999, and 83% for those with a household income of under £19,999. By parental educational attainment, 89% of co-resident mothers in households where the highest educational attainment was degree or above reported their child talking to them most days. This compared to 80% among co-resident mothers where the highest parental education was no qualifications.

A larger proportion of co-resident mothers with the following characteristics reported their child hardly ever talking to them about things that matter: eligible for FSM (5% compared to 1% not eligible for FSM); with a child with SEN (16% compared to 1% without a child with SEN); where the cohort child was a boy (4% compared to 2% with girls); with a household income under £40,000 (4% compared to 1% over £60,000) and in the lowest parental educational attainment category (6% with no qualifications, compared to 1% of those in the degree and above category. Among children with SEN, this was higher in those with autism, where 38% of co-resident mothers reported their child hardly ever talked to them about things that matter.

Eating an evening meal together

Sixty-seven per cent of co-resident mothers with children eligible for FSM reported eating meals with their child six to seven times a week compared to 60% of those not eligible for FSM. Six per cent of co-resident mothers in households eligible for FSM had not had a meal with their child in the past seven days, compared to 3% of those not eligible for FSM.

A similar proportion of co-resident mothers reported eating meals with their child whether or not their child had SEN. However, more co-resident mothers of a child with SEN had not eaten a meal with their child in the past seven days (6%, compared to 3% with a child with no SEN).

Co-resident mothers in the lowest income quintile (68%) and in the no parental qualifications category (70%) were more likely to have eaten an evening meal with their child six to seven times in past week, compared to those in the highest income quintile (49%) and in the degree or above parental education category (61%).

Spending time on activities outside the home (leisure activities and outings such as visiting the park, zoo, movies, sports or having a picnic)

A larger proportion of co-resident mothers with children not eligible for FSM (73%) reported spending time on leisure activities at least once a week than those with children eligible for FSM (63%).

Co-resident mothers in households where no parent had a qualification reported spending time on leisure activities at least once a week to a lesser extent (60%) than those in households where the highest level of parental education was degree or above (76%).

5.3.2 Co-resident paternal activities with the cohort child

Of co-resident fathers, 82% reported speaking to their child about things that matter most days, 14% more than once a week, 2% less than once a week and 2% hardly ever.

Forty-eight per cent of co-resident fathers had eaten a meal six to seven times with their child in the past seven days. Thirty-two per cent had done so three to five times, 16% one to two times, and 3% zero times.

In relation to taking their child on activities outside the home, 5% of co-resident fathers reported doing this almost every day, 33% took their child several times a week, 33% about once a week, 22% several times a month, 6% once a month and 1% never took their child on leisure activities. Overall, 71% of co-resident fathers took their child on activities outside the home at least once a week.

5.3.2.1 Demographic differences in co-resident paternal activities

Children talking to co-resident fathers about things that matter

Co-resident fathers in households eligible for FSM were twice as likely to report their child talked to them about things that matter less than once per week (8%), compared to co-resident fathers in households not eligible for FSM (4%).

A larger proportion of fathers of a child with no SEN (84%) reported their child talked to them most days about things that matter compared to those of a child with SEN (67%). More co-resident fathers of a child with SEN (16%) reported their child hardly ever talked to them about things that matter compared to those without a child with SEN (1%). This was highest for co-resident fathers of children with autism (38%) and with cognition and learning difficulties (40%).

Co-resident fathers where the cohort child was a boy were more likely to report that their child hardly ever (3%) talked to them about things that matter, compared to those with girls (1%).

More co-resident fathers with household incomes of below £40,000 per annum reported their child hardly ever (4%) talked to them about things that matter, compared to those with household incomes of £60,000 and over (<1%). This proportion decreased across household income quintiles.

An overall association was observed in relation to cohort children talking to co-resident fathers about things that matter and parental educational attainment. However, when these differences were examined at the category level, the association dropped out.

Eating an evening meal together

There was no difference between co-resident fathers eating evening meals with their child according to whether the child was eligible for FSM, had SEN, was a boy or girl or the highest level of parental educational attainment in the child's household.

Fifty-two per cent of co-resident fathers with a household income of under £40,000 reported eating an evening meal six to seven times a week with their child, compared to 43% of co-resident fathers with a household income of £60,000 or above. The percentage of co-resident fathers eating evening meals with their child decreased as household income quintile increased.

There was an overall association between eating an evening meal with their child and parental education. Co-resident fathers with no qualifications were most likely to report eating evening meals six to seven times a week with their child (57%), followed by those with degree level qualifications or above (50%) (although the difference between these two categories was not statistically significant). Co-resident fathers educated to GCSE level or equivalent were least likely to report eating evening meals together six or seven times per week (45%).²⁴

²⁴ The difference between this 45% and the 57% of co-resident fathers with no qualifications eating with their child 6-7 times per week was statistically significant.

Spending time on activities outside the home (leisure activities and outings such as visiting the park, zoo, movies, sports or having a picnic)

A lower proportion of co-resident fathers with children eligible for FSM (66%) reported spending time on activities outside the home at least once a week than those with children not eligible for FSM (72%).

Overall, households with lower household income and lower parental education reported engaging less often in activities outside the home than those with higher household incomes and higher parental education.

5.4 Confusion, hubbub and order scale (CHAOS)

The household interview included a series of questions about household disorganisation, using the four-item version of the Confusion, Hubbub and Order scale (CHAOS; Matheny and others, 1995). This measure of environmental ‘confusion’ is defined as exploring high levels of noise, disorganisation, crowding and a lack of routine. The co-resident main informant was asked about the day-to-day dynamics of their home life, including whether the house was disorganised, whether respondents could ‘hear yourself think’ at home, if the atmosphere in the house was calm and whether there was a regular morning routine. Existing evidence suggests that the CHAOS scale is a well-validated measure to assess the home environment in studies involving children (Larsen and others, 2023). Responses are scored on a five-point Likert scale from strongly agree to strongly disagree. Scores are combined to create a CHAOS score ranging from 4 to 20. Three categories were created for analytical purposes:

- low, relating to scores 7 and under,
- medium for scores 8 to 11, and
- high for scores 12 and over.

The higher the score, the more disorganised the child’s home environment.

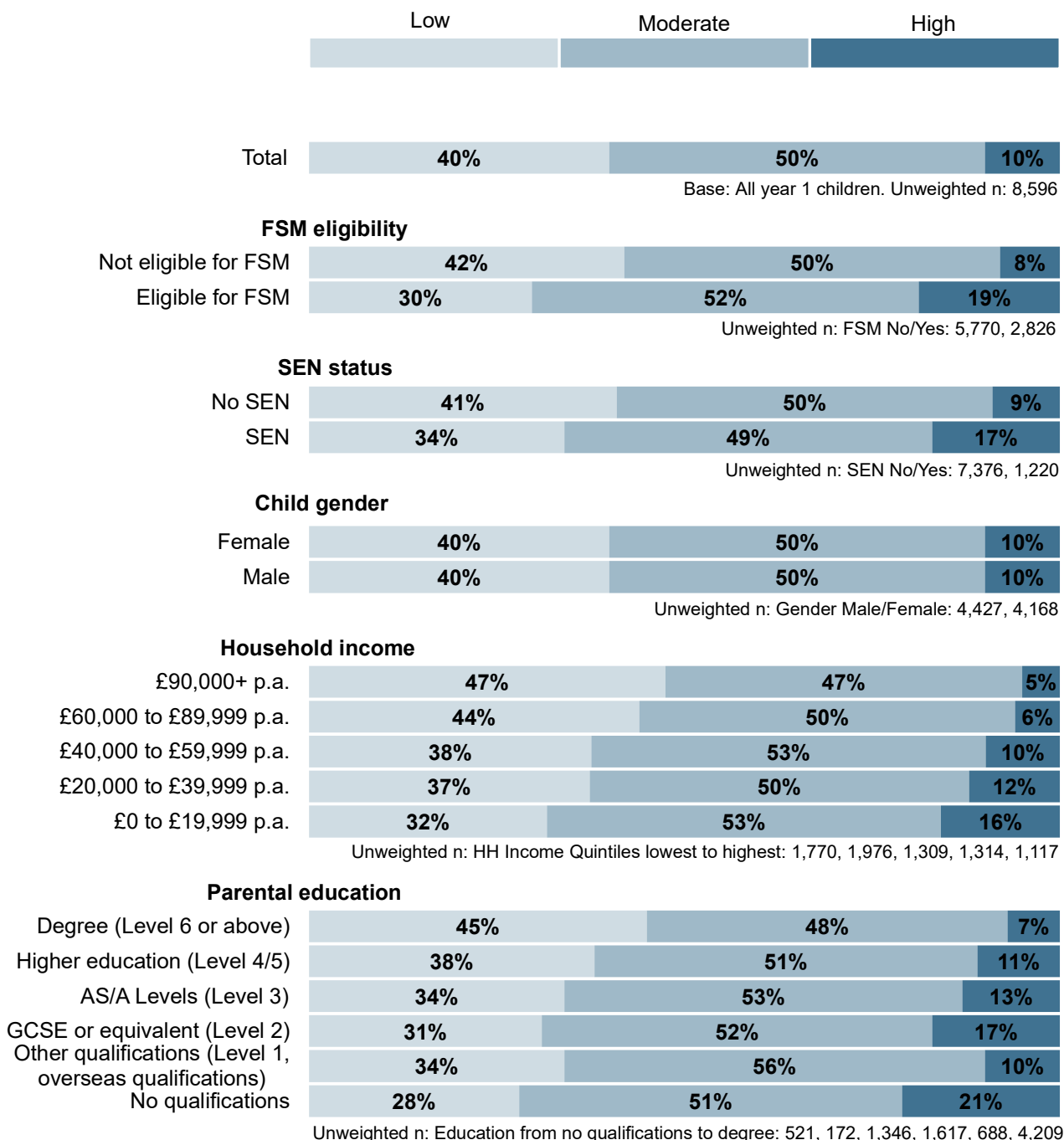
Overall, 40% of households had a low overall score, 50% had a medium score and 10% had a high CHAOS score (see Figure 36). The mean score was 8.18.

5.4.1 Demographic differences in CHAOS

A larger proportion of households with a child eligible for FSM (19%) had a high CHAOS score than those with a child not eligible for FSM (8%). Similarly, a larger proportion of households with a child with SEN (17%) had a high CHAOS score than those with a child with no SEN (9%). A similar proportion of households had a moderate CHAOS score regardless of whether they were eligible for FSM or the child had SEN.

A larger proportion of households in the lowest household income quintile (16%) and in the lowest parental education category (21%) had a high CHAOS score than those in the highest household income quintile (5%) and highest parental education category (7%).

Figure 36: CHAOS score, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

5.5 Digital environment

Evidence suggests that children's screen time and use of digital devices is increasing. One in five children aged between three and four have their own mobile phone (Fish and others, 2026). The House of Commons Education Committee recently reported that screen time for children aged 5 to 15 has increased from 9 hours a week in 2009 to 15 hours a week in 2018 (Education Committee, 2024).

Benefits to screen time include communicating with others, accessing educational content online and the ability to learn new skills (e.g. cooking, crafting, and music). However, screen time can negatively affect mental health, while internet use exposes children to risk of encountering online harms such as bullying, abuse and harmful content (Education Committee, 2024). In addition, research has found an association between screen time and adverse child health outcomes including children's sleeping patterns and eye-related issues such as myopia (Champagne-Hamel and others, 2023; Education Committee, 2024 Lissak, 2018).

For school-age children, the recommended screen time is around one hour a day although recommendations have been hard to ascertain due to the wide use of technology and devices in schools as well as at home (Hill and others, 2016; World Health Organisation, 2019). In 2018, children were spending around 15 hours a week using devices; since the COVID-19 pandemic this has increased by 52% (Education Committee, 2024). According to Ofcom research, 85% of three- to five-year-olds went online in 2024, with the most common app or site used being YouTube followed by WhatsApp and social media platforms. The most common devices used were a tablet (69%) followed by a smartphone (34%), games console (16%), laptop (12%) and desktop computer (4%). Fifteen per cent of three- to five-year-olds did not have a device (Ofcom, 2025).

5.5.1 Devices used

The co-resident main informant was asked whether the child used digital devices in the home. This included selecting from a smartphone, tablet, laptop, desktop computer, games console, TV set, or no devices used in the house. They were allowed to select more than one device.

Eighty-six per cent of households reported their child used a TV, 78% a tablet, 39% a smartphone, 35% a games console, 16% a laptop, 6% a desktop computer, and 1% used no devices in the home.

5.5.1.1 Demographic differences in devices used

Table 26 provides data on demographic differences in devices used. As displayed in the table, households eligible for FSM were slightly more likely to report that their child used

a games console (38%) compared to households not eligible for FSM (34%). In contrast, households not eligible for FSM were more likely to report that their child used a tablet, a laptop, a desktop computer and a TV compared to households eligible for FSM. There was no difference in smartphone use or in whether the child used no devices by FSM eligibility (see Table 26).

Main households where the child had SEN were more likely to report that their child used a smartphone, compared to those of a child with no SEN. Households where the child had no SEN were more likely to report that their child used a laptop, a desktop computer, a games console and a TV compared to households where the child had SEN. There was no difference in tablet use by SEN status.

Just under one-half (45%) of households where the cohort child was a boy reported their child used a games console, compared to 24% of households where the cohort child was a girl. Households where the cohort child was a girl were slightly more likely to report their child used a tablet at home (80%) than households where the cohort child was a boy (77%).

A larger proportion of main households in the highest income quintile reported their child used a tablet, a laptop and a TV compared to those in lower income quintiles. A larger proportion of children in households with lower incomes used a smartphone (42%) compared to those in households with higher incomes (35%). There was no difference by household income quintiles in relation to desktop computer use, games console use or in whether children used no devices.

Co-resident parents with higher levels of parental education were more likely to report that their child used a tablet, a laptop, desktop computer, games console, or a TV compared to those with lower levels of parental education. In contrast, a larger proportion of households with lower parental education reported that their child used a smartphone (47%) compared to those with higher parental education (37%).

5.5.2 Screen time

The main informant was asked how many hours their child spent on digital devices on a school day. They were asked to think about watching TV, playing games on consoles tablets or phones or watching video clips online. Overall, 5% reported zero hours, 42% 1 hour, 36% 2 hours, 12% 3 hours, 3% 4 hours and 2% 5 hours of screen time (see Figure 37). The average number of hours spent using a digital device on an average school day was 1.74 hours.

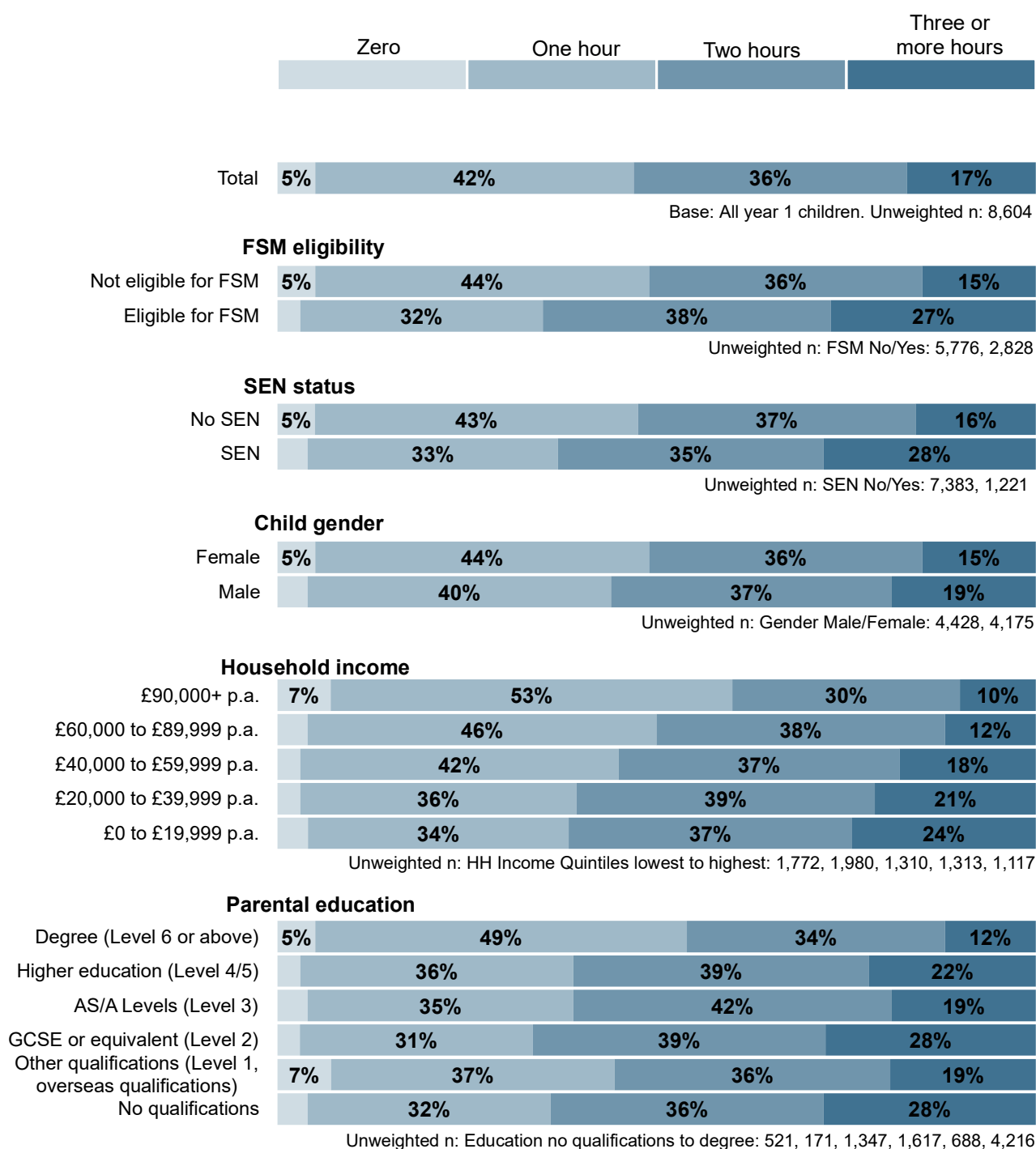
Table 26: Devices used, by demographic characteristics

	Smart phone	Tablet	Lap-top	Desktop computer	Games console	TV	None	Unweighted Base	Weighted Base
Eligible FSM	40	76	12	4	38	82	1	2,837	1,545
Not eligible FSM	39	79	17	6	34	87	1	5,779	7,073
SEN	43	76	11	4	32	79	1	1,226	1,016
No SEN	39	79	17	6	35	87	<1	7,390	7,602
Income: £0 - £19,999	42	74	13	4	34	80	1	1,774	1,350
Income: £20,000 - £39,999	43	76	16	5	35	85	<1	1,982	1,836
Income: £40,000 - £59,999	39	80	16	6	37	88	<1	1,312	1,484
Income: £60,000 - £89,999	36	83	16	6	39	92	<1	1,314	1,521
Income: £90,000 +	35	84	21	6	35	91	<1	1,117	1,344
Parental qual: None	47	67	10	2	25	78	2	526	392
Parental qual: Other	53	66	14	6	22	85	-	172	139
Parental qual: GCSE equivalent	41	78	11	3	40	82	1	1,348	1,098
Parental qual: AS/A-Level	39	81	13	5	41	88	<1	1,619	1,530
Parental qual: Higher education	37	80	11	6	42	87	1	688	671
Parental qual: Degree or above	38	78	19	6	32	87	<1	4,218	4,748

Base: all year 1 children. Data with a '-' are missing for reasons of statistical disclosure control (SDC).

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

Figure 37: Number of hours of screen time, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/Carer survey

5.5.2.1 Demographic differences in screen time

Main households eligible for FSM were more likely to report three hours or more screen time on a school day (27%) than households not eligible for FSM (15%). Main households with a child with SEN were more likely to report three or more hours of screen time (28%) than those with a child with no SEN (16%). Reports of zero hours screen time on a school day were similar across households by SEN status and FSM eligibility. Main households where the cohort child was a girl reported overall less screen time than those with boys.

5.5.3 Screen time activities

Main informants who reported that their child used digital devices on a school day were asked what their child usually does. Answers included:

- playing games on a device
- watching TV programmes
- watching short video clips
- sending messages online or video calling with friends and family.

Respondents were able to select more than one activity.

Overall, 83% of children watched TV, 78% played games on a device, 56% watched video clips and 11% sent messages online or joined video calls with friends and family.

5.5.3.1 Demographic differences in screen time activities

A larger proportion of main households eligible for FSM reported their child played games on a device (81%) and watched short video clips (64%) compared to households not eligible for FSM (77% and 54%, respectively). A smaller proportion of children in households eligible for FSM watched TV (76% in households eligible for FSM; 85% in households not eligible).

Main households with a child with SEN were less likely to report that their child played games on a device (72%) and watched TV (76%) than households with a child with no SEN (79% and 84%, respectively). In contrast, main households with a child with SEN were more likely to report that their child watched short video clips (61% in households with a child with SEN, compared to 56% in households with a child with no SEN).

There was no difference in whether children sent messages online or video called family and friends according to FSM eligibility or SEN status.

Households where the cohort child was a boy (81%) reported that they played games on a device more than girls (75%). In contrast, households where the cohort child was a girl

reported they watched TV (85%) slightly more compared to boys (81%). There was no gender difference in whether children watched short video clips.

There was no difference by household income in whether children played games on a device or sent messages online or video called with friends and family. However, a larger proportion of main informants with incomes of £60,000 or above reported that their child watched TV (90%) compared to those in the lowest income quintile (78%). In contrast, a smaller proportion of main informants in the highest income quintile reported that their child watched short video clips on sites such as YouTube or TikTok (47%), compared to those in the lowest income quintile (62%).

Households where the highest level of co-resident parental education level was degree or above were more likely to report that their child watched TV (85%) and sent messages online or video called with friends and families (11%) compared to households with no parental qualifications (75% and 5%, respectively). In contrast, households with no parental qualifications were more likely to report that their child watched short video clips (61%) compared to those where the highest level of co-resident parental education level was degree or above (51%). Households where the highest level of co-resident parental education was GCSE or equivalent were the most likely to report that their child played games on a device (84%), compared to 78% of households with no qualifications and 75% of those where the highest level of co-resident parental education level was degree or above.

5.6 Summary

This section has explored the child's home learning environment, examining the extent to which co-resident parents engaged with the child in activities that promote learning and creativity.²⁵ Several between-group differentials were identified that may potentially contribute to differences in future outcomes. A key finding is that main households with different forms of disadvantage (those eligible for FSM, with a child with SEN, with lower household incomes and with lower parental education levels) were more likely than their counterparts to have a low home learning environment index. While this finding indicates that these households engaged in fewer home learning activities, it is important to note that the proportions scoring very low in these groups remain small. Examination of demographic characteristics demonstrated differences in the frequency and type of home learning activities. In general, households eligible for FSM, with a child with SEN and lower household income tended to engage in more drawing, painting, singing songs and educational activities on an electronic device compared to households not eligible for

²⁵ As described in section 5.2.1, the home learning environment question refers to 'you or another person in your home' doing home learning activities with the child, not only parents.

FSM. Households not eligible for FSM were more likely to engage in reading with their child, talking to their child about feelings, and helping their child to read.

The main informant was asked about other home environment factors, such as the number of children's books in the house, attendance at parents' evenings and engagement in family activities. Most households had children's books in the home. However, greater proportions of households with a higher household income, not eligible for FSM, with a child with no SEN and with higher co-resident parental education had more than 100 children's books. Attendance at parents' evenings was high and most parents had attended their child's parents' evening, although co-resident mothers were the most likely to do this. In terms of demographic characteristics, a greater proportion of households eligible for FSM, with a child with SEN, with a lower household income and with lower co-resident parental education did not attend their child's parents' evening.

Co-resident fathers and mothers of children not eligible for FSM, with no SEN, with higher household income and higher co-resident parental education were more likely to engage in family activities with the cohort child. An exception to this was co-resident mothers with lower household income and no qualifications, as well as co-resident fathers with lower incomes, who were more likely to eat evening meals with the cohort child more frequently.

Teachers were asked the extent to which they felt that the child's parents were interested in their child's education. The data showed that teacher ratings of parental interest were higher for families not eligible for FSM, those with higher household incomes and with higher levels of co-resident parental education.

The study collected data on the levels of disorganisation in the child's home environment, using the CHAOS scale (as discussed in section 5.4). Households eligible for FSM, with a child with SEN, with lower household income and with lower levels of co-resident parental education were more likely to have a high score on the CHAOS scale, indicating a more disorderly home environment.

Finally, in relation to the digital environment, on average children spent 1.74 hours on a screen on a school day. Households eligible for FSM, with a child with SEN and where the cohort child was a boy were more likely to report higher screen time. Device use also varied between demographic characteristics. Households eligible for FSM and where the cohort child was a boy reported more games console use, while households with lower income, as well as those with lower levels of parental education, reported more smartphone use than their counterparts.

6. The cohort child at school

Key findings

- over three-quarters of children were predicted by teachers to achieve at least the expected standard in maths by the end of KS2 (78%), with the same trend for reading (77%).
- around two-thirds of children were in schools that used attainment grouping for English (67%) and for maths (66%). It is likely that teachers were considering within-class grouping when predicting children's future attainment. The proportion using attainment grouping is higher than estimated in other studies which might suggest this practice is becoming more commonplace.
- attainment indicators in this study (that is, both teachers' predictions of KS2 attainment and attainment grouping in maths and reading) are significantly associated with socio-economic factors (indicated by free school meal (FSM) eligibility, household income and parental education), special educational needs (SEN) and, to a lesser extent, gender.
- around one-quarter of children (26%) in the Five to Twelve study 'never' exhibited disruptive behaviours, according to their teachers, such as 'talking out of turn' or 'making cheeky or rude remarks to the teacher'. A further 55% were categorised as having 'low' levels of disruptive behaviour and 16% 'moderate' levels whilst just 3% of children exhibited 'high' levels of disruptive behaviour.
- the prevalence of children experiencing and displaying behaviours that could be characterised as bullying was generally low. According to their teachers, 71% of children were 'never' purposely hurt or picked on by other children and 72% of children 'never' purposely hurt or picked on other children. Only small proportions of children were reported to experience (5%) and display (10%) such behaviours frequently. However, children with SEN, eligible for FSM and boys were more likely to both experience and display bullying behaviours.
- the majority of child-teacher relationships were characterised as having a 'high' degree of closeness (85%).
- sixteen per cent of parents/carers were aware their child was receiving tutoring in maths, English or other academic subjects organised by school.
- according to teachers, small group learning support was the most common type of support received by children (for 39% of children), followed by one-to-one learning support (22%). Support services were more common for children with SEN than those with no SEN.

This chapter explores aspects of the child's environment in primary school including attainment predictions and attainment-grouping practices, behaviour at school, bullying behaviour, child-teacher relationships, tutoring, and support at school. The school environment is explored primarily through the lens of teacher perceptions about cohort children, as well as information from the co-resident parent (the main informant) in relation to tutoring. The chapter also investigates the extent to which children's school environment varies by their demographic characteristics, such as free school meal (FSM) eligibility, special educational needs disabilities (SEN) status, gender, household income, and co-resident parental education.

6.1 Introduction

This section begins with an exploration of children's attainment in terms of teacher predictions of the year 1 child's likely attainment at the end of primary school. Children sit Key Stage 2 (KS2) national curriculum assessments at the end of primary school, when they are in year 6. The most recent results at the time of this report show that in 2023/24, 73% of children achieved at least the expected standard in maths and 74% of children met at least the expected standard in reading (Department for Education, 2025a).

Existing evidence indicates that children's attainment outcomes tend to vary by key characteristics such as being economically disadvantaged and having SEN and disabilities. Parental educational levels are also a well-known factor associated with a child's attainment (e.g. Sullivan, 2021). Often referred to as a 'disadvantage gap', there is a longstanding difference between attainment outcomes for disadvantaged pupils and their non-disadvantaged peers. For instance, in 2023/24 pupils eligible for FSM were 22 percentage points less likely to achieve the expected standard in reading, writing and maths at KS2 than pupils not known to be eligible for FSM (Department for Education, 2025b). Differences in attainment outcomes for children with SEN are even more stark. In 2023/24 pupils with SEN (including those with an Education, Health and Care Plan (EHCP) and those receiving SEN support)²⁶ were 50 percentage points less likely to achieve the expected standard in reading, writing and maths at KS2 than pupils with no SEN (Department for Education, 2025b).

This section also explores children's school environment in year 1 in terms of grouping by attainment. 'Setting' pupils so they are taught in groups of differing levels of attainment or ability is an approach more commonly found in secondary education, although some evidence suggests it may also be an increasing practice in primary schools. Analysis by Hallam (2012) indicated that 37% of year 2 children were in sets for numeracy and/or literacy. More recent evidence also suggests that attainment grouping practices tend to increase for each year group as children progress through primary school, with the practice being most prevalent in year 6 (EPI, 2023). In KS1 (years 1 and 2) mixed

²⁶ Please refer to section 2.3.3 for a detailed discussion of SEN including these classifications.

attainment grouping is the most common practice (around three-quarters of schools), followed by within-class attainment grouping (just over one-half of schools) (EPI, 2023). Other evidence suggests around one-half of KS1 pupils are taught in mixed attainment groupings, with the remainder taught primarily in within-class attainment groupings (Teacher Tapp, 2022). However, understanding the prevalence of such practices is challenging given different interpretations of, and basis for, attainment grouping. For instance, mixed attainment classes may have some form of attainment grouping within class. Nevertheless, while the aim of grouping may be to increase efficient and effective teaching to pupils of similar attainment levels, the evidence for beneficial outcomes is limited with results indicating grouping practice makes little difference overall (Jerrim and others, 2024) and may even be detrimental to learning for low attaining pupils (Parsons and Hallam, 2014; EEF, 2021a).

This section also explores the cohort children's behaviour in school, bullying behaviour, and teacher-pupil relationships, which are all factors which may be influential on future educational outcomes. Pupil behaviour is an important factor influencing children's attainment and progression and issues such as hyperactivity, aggression and behavioural difficulties are associated with poorer outcomes (Major and Parsons, 2022; Patalay and others, 2016; Panayiotou and Humphrey, 2018). Experiencing bullying at school has been associated with poorer subsequent educational outcomes (Halliday and others, 2021) and children with SEN are at higher risk of experiencing bullying (Department for Education, 2025h; Parsons and Platt, 2017; Anti-Bullying Alliance, 2021). However, there is limited evidence on the prevalence of bullying in school among younger age groups. Notwithstanding variations in estimates of the prevalence of bullying, recent evidence suggests over one-third of 10- to 15-year-olds have experienced being bullied (ONS, 2024) and almost one-quarter of primary and secondary children combined report being frequently bullied (NCB, 2024; Department for Education, 2025h). Teacher-pupil relationships have been found to be important in supporting positive educational outcomes, including high expectations for all pupils (Baars and others, 2018; Macleod and others, 2015; Stokes and others, 2015) and classroom climates that incorporate socio-emotional support (including warmth, safety, connectedness and quality interactions between teachers-pupils and pupils-pupils) (Wang and others, 2020).

This section also explores the prevalence of tutoring support for the cohort of year 1 children. Tutoring interventions provided to individuals and small groups of pupils have been found to have substantial positive outcomes (Nickow and others, 2020; EEF, 2021b). Also tutoring can be particularly effective for disadvantaged pupils (Dietrichson and others, 2017; Torgerson and others, 2018). Other forms of support in school may involve learning support, speech and language therapy, and psychological support. Evidence suggests there has been a rise in the need for support for children's additional

and broader needs, particularly since the COVID-19 pandemic, yet this support may not always be available (Ofsted, 2021).

In common with the rest of this report, all differences noted have been tested for statistical significance unless otherwise stated. Analysis is limited to the relationship between two variables and does not control for other factors. Please refer to the reporting conventions section (1.2.3) for more information.

6.2 Attainment

6.2.1 Teacher KS2 attainment predictions

The Five to Twelve teacher survey asked teachers of year 1 pupils how well they thought the child will do in the KS2 national curriculum assessments. It is worth noting therefore, these findings are based on teachers' predictions/judgements and may be subject to some (unconscious) biases.

The results were very similar for maths and reading. In maths, 78% of children were expected to meet at least the expected standard (56% the expected standard and 22% the higher standard) and 18% of children were expected to achieve below the expected standard.²⁷ In reading, 77% of children were predicted to achieve at least the expected standard (51% to achieve the expected standard and 26% to achieve a higher standard) and 19% were expected to achieve below the expected standard.²⁸

Overall, for both maths and reading, teachers' predictions regarding the proportions of children expected to achieve below, at or above expectations were similar to those seen in the published 2023/24 KS2 assessments (see section 6.1).

6.2.1.1 Demographic differences in teacher attainment predictions

Figure 38 and Figure 39 show that teachers' predictions of year 1 pupils' KS2 attainment in both maths and reading are associated with children's FSM eligibility, SEN status, gender, household income and parental education. Some associations are discussed in further detail in the subsequent paragraphs. They reflect existing evidence (see section 6.1) that socio-economic factors (indicated by FSM eligibility, low household income and low levels of co-resident parental education) and SEN are associated with poorer educational attainment.

Figure 38 and Figure 39 show a particular disparity in the predicted attainment outcomes for children with SEN and children with no SEN. The majority of children with no SEN were predicted to meet at least the expected standard in maths (83%) compared with

²⁷ A further 3% of children had teachers who answered, 'can't say'.

²⁸ A further 3% of children had teachers who answered, 'can't say'.

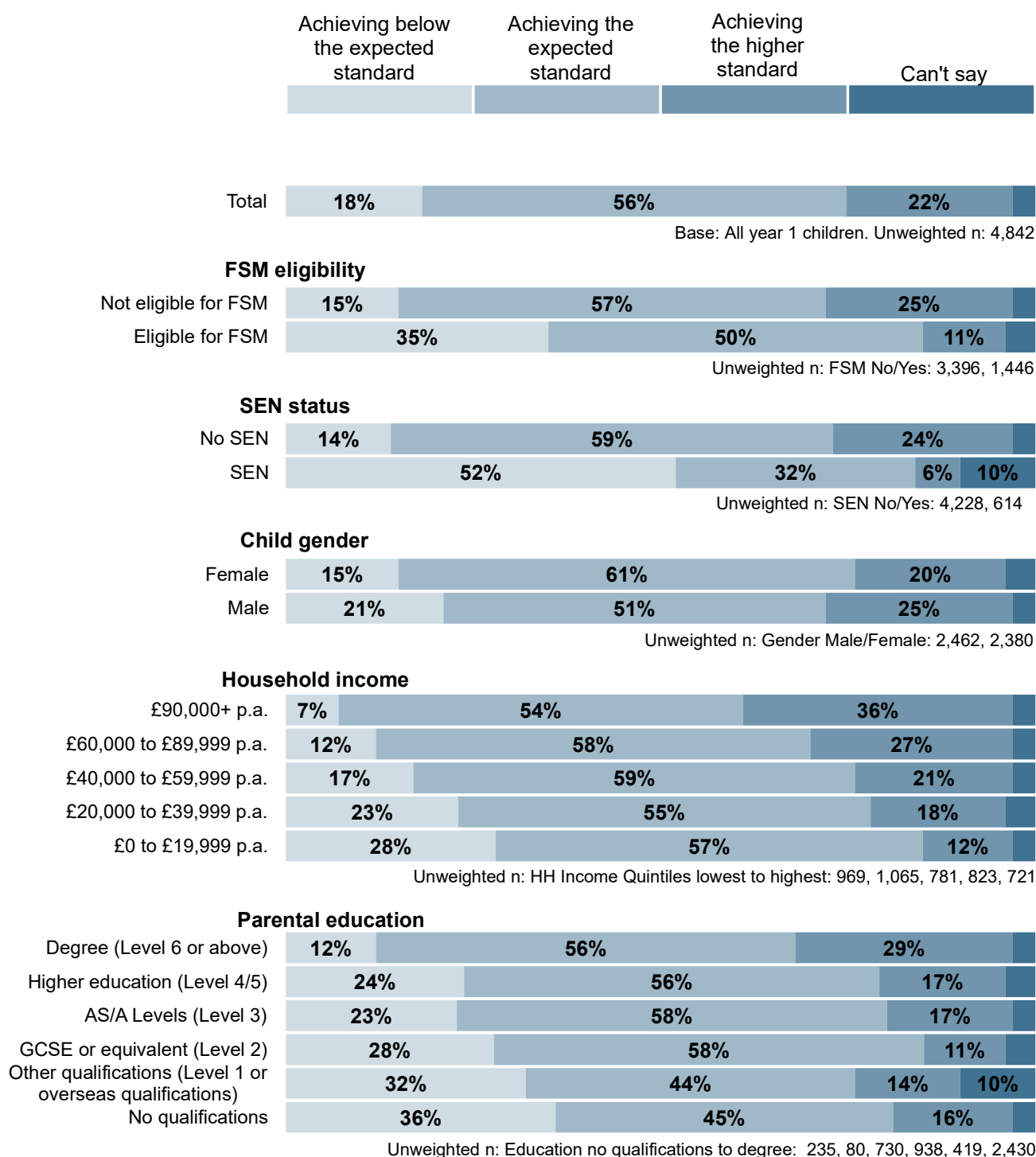
38% of children with SEN (Figure 38). The difference was similar in reading (Figure 39), where 82% of children with no SEN were predicted to meet at least the expected standard, compared with 38% of those with SEN. These predictions are consistent with evidence that children with SEN have lower average scores in educational attainment compared to their peers (Harland and others, 2024). There was some indication of variability across the different areas of SEN need (that is, children with a cognition and learning need, communication and interaction need, social emotional and mental health need, physical and sensory need and those with autism). However, some of the numbers of children with those needs in this sample were too small to draw meaningful conclusions.

Figure 38 and Figure 39 also show a difference in the predicted outcomes for FSM-eligible children and those not eligible for FSM. Sixty-one per cent of children eligible for FSM were predicted to meet at least the expected standard in maths, compared with 82% of children not eligible for FSM. The predictions were similar for reading, with 59% of children eligible for FSM predicted to meet at least the expected standard, compared with 81% of children not eligible for FSM.

Another way to explore the relationship between predicted attainment and socio-economic background is to look at the highest qualification achieved by the co-resident parents/carers. As shown in Figure 39, more children with co-resident parents with no qualifications were predicted to achieve below the expected standard in reading compared to those with A-Levels and above.

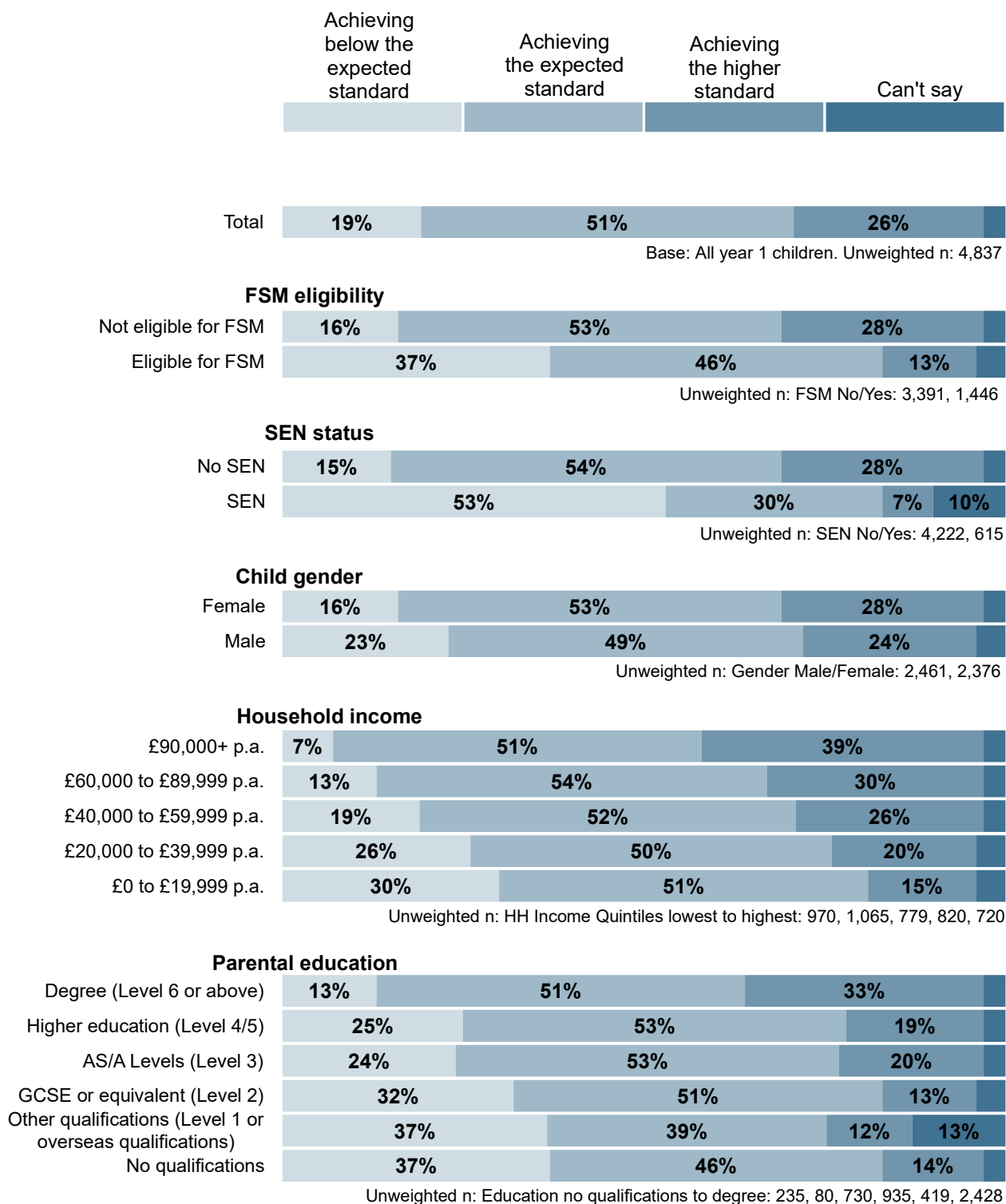
More girls than boys were predicted to meet the expected standard in both maths and reading, as shown in Figure 38 and Figure 39. For reading, more girls than boys were predicted to meet at least the expected standard (81% of girls and 73% of boys, a difference of 8 percentage points). This is broadly in line with the slight gender disparity that transpired in the actual KS2 assessments in 2023/2024, with a larger proportion of girls meeting the expected standard in reading, although in maths boys slightly outperformed girls (Department for Education, 2025c). Additionally, Five to Twelve data highlights greater variability in boys' predicted attainment in relation to maths than in relation to reading. For maths, a larger proportion of boys were predicted to reach the higher standard than girls (25% and 20% respectively), but also more boys were predicted not to reach the expected standard compared with girls (21% and 15% respectively). This was not seen in predicted outcomes for reading. This variability is also not seen in the KS2 assessments (Department for Education, 2025c), with more boys than girls achieving the higher standard in maths in 2023/24 (27% and 21% respectively) and fewer boys than girls not reaching the expected standard (21% and 24% respectively). It may be that the variability in boys' scores decreases with age. This can be explored further with future waves of the Five to Twelve study.

Figure 38: Teacher attainment predictions in maths, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

Figure 39: Teacher attainment predictions in reading, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

6.2.2 Attainment academic groups

Teachers were asked which set (if any) the child was in for maths and English. The following definition was provided alongside the question: ‘Some schools group children by ability for certain subjects, and they may be taught in different attainment groups for different subjects. We refer to this as ‘setting’. The sets (or groups) in which children are placed can be an indication of their educational attainment.’

Around two-thirds of children were grouped by attainment for English (67%) and for maths (66%). It is likely that most teachers were considering within-class attainment grouping when answering this question rather than the practice of separating children into different classes/sets which is more common in secondary schools. Five to Twelve data suggests that grouping by attainment for this age group may be more prevalent than has been identified in other evidence (see section 6.1), where mixed attainment grouping is the more dominant approach.

Eighteen per cent of children were in the highest group for English, 32% in the middle group and 17% in the lowest group. This distribution was similar for maths grouping, with 18% of children in the highest group, 33% in the middle group, and 14% in the lowest group. Around one-third of children were in schools that did not use attainment grouping (33% for English and 34% for maths).

6.2.2.2 Demographic differences in academic groups

Figure 40 and Figure 41 shows that being placed in academic groups for maths and English is related to children’s FSM eligibility, SEN status, gender, household income and parental education.

Some of the largest differences in proportions of children across the high, middle and low groups were observed when broken down by children with and without SEN. Only 5% of children with SEN were in the highest group for maths (Figure 40) and English (Figure 41) compared with 20% of children with no SEN for both subjects. Correspondingly, 44% of children with SEN were in the lowest group for English and 39% were in the lowest group for maths, compared to 14% and 11% of children with no SEN for English and maths respectively.²⁹

As shown in Figure 40 and Figure 41, a much larger proportion of FSM-eligible children were in the lowest attainment group for both maths and English. Specifically, 27% of children eligible for FSM were in the lowest group for maths and 30% for English, compared with 12% and 14% respectively among children not eligible for FSM. There was also a linear relationship observed with attainment grouping and household income: as annual household income increased the proportion of children in the higher attainment

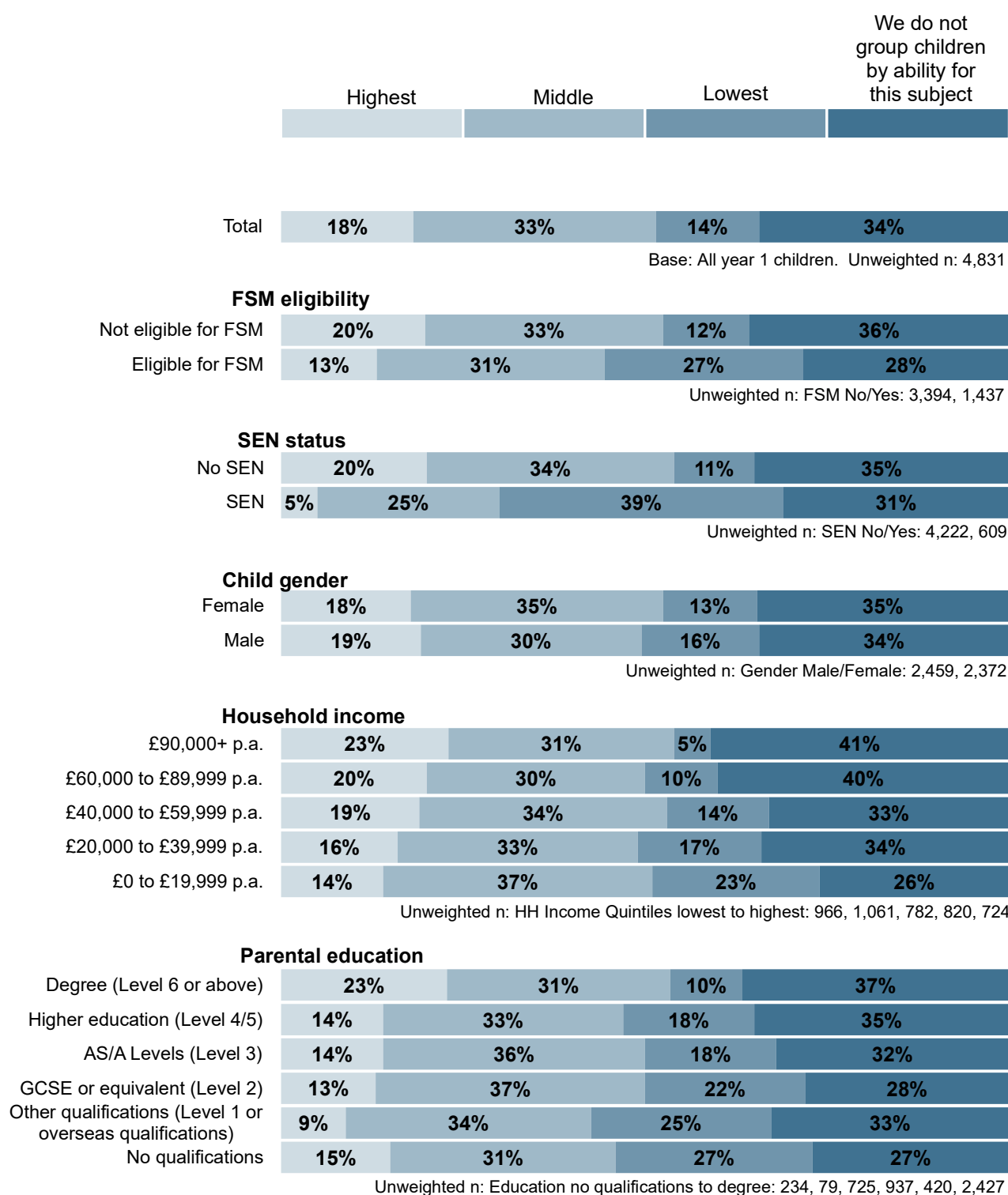
²⁹ There was some indication of variability across different types of SEN but the numbers of children were too small to make meaningful conclusions.

groups for English and maths increased and the proportion of children in the lower attainment groups decreased. Finally, as might be expected, the third indication of socio-economic background, co-resident parental education level, was also related to attainment grouping. A larger proportion of children with at least one co-resident parent/carers qualified to degree level (Level 6 or above) were in the 'high' attainment group compared to those with lower qualifications. For example, 31% of children where co-resident parents/carers had no qualifications were in the 'low' attainment group in English, 19 percentage points higher than children with at least one co-resident parent/carers qualified to degree level (12%).

Figure 40 and Figure 41 also show an interesting pattern in household income and school attainment-grouping approaches. A larger proportion of children from more affluent households (that is, in the top quintiles of annual household income) were in schools that did not group children by attainment for maths and English, than children from the less affluent households (that is, the bottom quintiles). For example, for maths (Figure 40), 41% of children with an annual household income of £90,000 or more were in schools that did not use attainment grouping for maths, compared with 26% of children with an annual household income of £0 to £19,000. This may reflect differences in the demographic populations of schools, such that children from higher income households may be more likely to attend schools with lower variability in attainment, and therefore the rationale for grouping by attainment may be diminished.

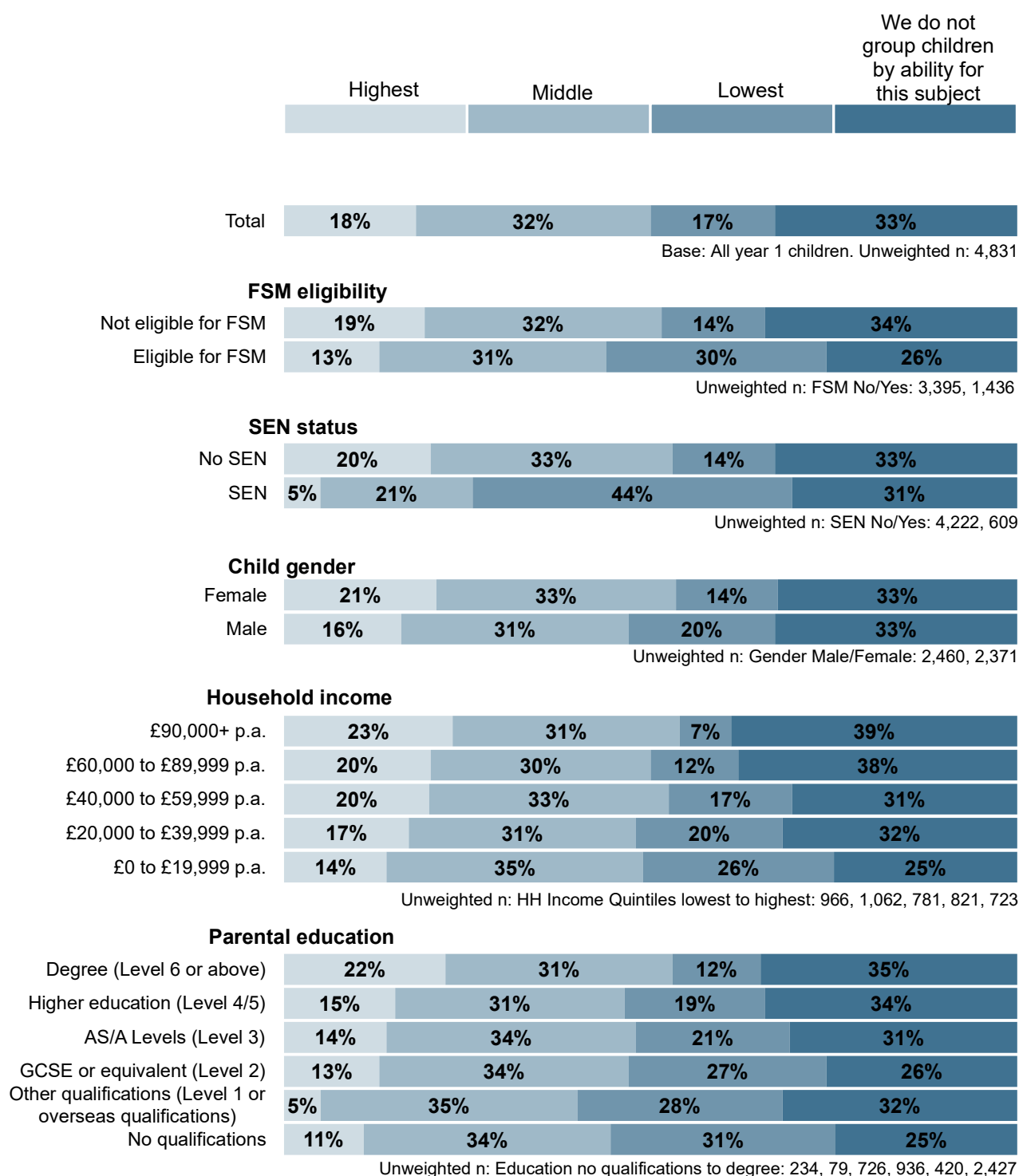
As shown in Figure 41, slightly more girls than boys were in the highest group for English (21% and 16% respectively) and, expectedly therefore, fewer girls were in the lowest group (14% compared with 20% of boys). However, the distribution of boys across the groups for maths was more complex. There was no difference between boys and girls in the highest group but a slightly larger proportion of boys in the lowest group (16% of boys and 13% of girls) and fewer boys in the middle group (30% compared with 35% of girls). This follows a similar pattern to the findings about teachers' predictions about whether boys and girls would meet the expected standard in maths.

Figure 40: Use of academic groups in maths, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

Figure 41: Use of academic groups in English, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

6.3 Behaviour at school

To measure pupil behaviour, teachers were asked to respond to a series of 6 statements about the child's behaviour at school since the beginning of term. These items are adapted from the Pupil Behaviour Questionnaire (PBQ, Allwood and others, 2018).³⁰ Existing evidence suggests that the PBQ is a well validated measure for assessing classroom behaviour (Allwood and others, 2018). Using the response options 'Never', 'Rarely', 'Sometimes', 'Often' and 'Always,' teachers were asked to answer how often the child was:

- Talking out of turn (such as by making remarks, calling out, chattering)
- Interrupting other pupils (such as by distracting them from work)
- Making unnecessary (non-verbal) noises (such as by scraping chairs, banging objects)
- Verbally abusive towards other pupils (such as offensive or insulting remarks)
- Physically aggressive towards other pupils (such as by pushing, punching, striking)
- Making cheeky or rude remarks to the teacher.

Table 27 shows the frequency with which children exhibited these behaviours. The table is ordered by frequency of behaviour, with the lowest to highest percentage of 'never'. The vast majority of children were 'rarely' or 'never' verbally abusive (90%) or physically aggressive (90%). Furthermore, 88% never or rarely made cheeky or rude remarks or unnecessary non-verbal noise (78%). The most frequent of the listed behaviours were 'talking out of turn', with 16% of children doing this 'often' and 5% doing this 'always'. This was closely followed by 'interrupting other pupils; with 14% of children doing this often and 4% doing this always.

The responses to this question were scored, creating a single score and then children were separated into 4 categories: 'no disruptive behaviour', 'low levels of disruptive behaviour', 'moderate levels of disruptive behaviour' and 'high levels of disruptive behaviour'. A lower score, and thus a lower category, indicates more desirable behaviour from the child. Further details of the scale and the banding can be found in Appendix H, section 11.8.

According to their teachers, around one-quarter of the children never displayed any of the disruptive behaviours (26%). Over one-half of the children were perceived to exhibit low levels of disruptive behaviour at school (55%), indicating they exhibit some non-desirable

³⁰ The original scale was a three-point scale (never / occasionally / frequently) but for this study a five-point scale was used for better differentiation and to be consistent with other questions in the questionnaire.

behaviours but not frequently. A further 16% exhibited moderate levels of disruptive behaviour and just 3% exhibited high levels of disruptive behaviour.

Table 27: Frequency of individual behaviours

Frequency	Talking out of turn (%)	Interrupting other pupils (%)	Making unnecessary non-verbal noise (%)	Making cheeky or rude remarks to the teacher (%)	Verbally abusive to other pupils (%)	Physically aggressive to other pupils (%)
Never	33	34	57	74	76	77
Rarely	25	26	21	14	14	13
Sometimes	21	22	10	8	7	8
Often	16	14	8	3	2	3
Always	5	4	4	1	<1	<1
<i>Unweighted Base</i>	4,852	4,854	4,856	4,850	4,852	4,854
<i>Weighted Base</i>	4,853	4,853	4,857	4,853	4,854	4,854

Base: All year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

6.3.1 Demographic differences in child behaviour

Figure 42 shows that children's FSM eligibility, SEN status, gender, household income and parental education are associated with child behaviour.

The data demonstrate an association between SEN and increased prevalence of disruptive behaviour. According to their teachers, children with SEN were 9 percentage points more likely to be categorised as exhibiting high levels of disruptive behaviour than children with no SEN (11% and 2% respectively). A further 28% of children with SEN were categorised as exhibiting moderate levels of disruptive behaviour, compared with 15% of children with no SEN.

Boys generally displayed more disruptive behaviour than girls. Boys were half as likely to be categorised as showing no disruptive behaviour compared to girls (17% compared to 34%). Correspondingly, boys were 4 percentage points more likely to be categorised as exhibiting high levels of disruptive behaviour than girls (5% and 1% respectively) and 12

percentage points more likely to exhibit moderate levels of disruptive behaviour (22% compared with 10%).

Finally, socio-economic background factors (that is eligibility for FSM, household income and parental education) were also associated with children's behaviour, but differences were smaller than for SEN and gender. For example, fewer children eligible for FSM were categorised as showing no disruptive behaviour compared with those not eligible for FSM (20% and 27% respectively). Similarly, there was a linear relationship with household income, the higher the household income, the more likely children were to be categorised as displaying no disruptive behaviour (see Figure 42).

6.4 Bullying behaviour

Teachers were asked how often, if at all, the child had been purposely hurt or picked on and how often the child had purposely hurt or picked on other children. These behaviours, where frequent and repeated, are typically characterised as bullying behaviours. We note that these experiences are teacher reported, and therefore not all bullying activity may be captured here, and the findings may not reflect pupil experiences of bullying incidents.

Overall, prevalence of these behaviours was low. Seventy-one per cent of children were estimated by teachers to 'never' be purposely hurt or picked on. Teachers reported overall 5% of children were hurt or picked on, on purpose, about 'once a month' (3%), 'once a week' (2%) or 'most days' (<1%). A further 23% of teachers reported these behaviours 'less often', indicating more occasional instances which may not be characterised as bullying.

Similarly, 72% of children were estimated by teachers to 'never' hurt or pick on others on purpose. However, one in 10 children (10%) were reported to display these behaviours about 'once a month' (5%), 'once a week' (3%) or 'most days' (2%), indicating bullying behaviour. A further 18% of teachers reported these behaviours 'less often', which would indicate a small proportion of children engaged in poor social behaviours occasionally, but if this was not repeated this may be unlikely to be regarded as perpetrating bullying.

Some children were more likely to both experience and display bullying behaviours. This includes those eligible for FSM, those with SEN, and boys, consistent with wider research findings (NCB, 2022). These findings are discussed in more detail in section 6.4.1.

6.4.1 Demographic differences in bullying behaviour

6.4.1.1 Experiencing bullying

Figure 43 shows there are relationships between being purposely hurt or picked on (behaviours which may be characterised as experiencing bullying when frequent and repeated) and children's FSM eligibility, SEN status, gender and parental education.

A significant relationship was not found between experiencing bullying behaviours and household income. Around one in ten children with SEN were estimated to be purposely hurt or picked on about once a month or more (9%), compared with 5% of children with no SEN. There was also a difference of 10 percentage points for 'never' experiencing these behaviours, with 73% of children with no SEN never experiencing them compared to 63% of children with SEN. Research suggests that children with SEN are particularly at risk of experiencing bullying (NCB, 2022). Despite overall low prevalence of bullying behaviour for this age group, the current findings also indicate that this risk factor begins to emerge for year 1 children with SEN.

There were also indications that children eligible for FSM were slightly more likely to experience bullying, according to their teacher, than children not eligible for FSM. Eight per cent of children eligible for FSM were purposely hurt or picked on about once a month or more frequently, compared with 5% of children not eligible for FSM. Seventy-three per cent of children not eligible for FSM 'never' experienced behaviour that can be characterised as bullying, whereas this proportion was lower for children eligible for FSM (64%).

A difference was observed, to a lesser extent, between boys and girls. Teachers reported that two-thirds of boys (66%) never experienced being purposely hurt or picked on, compared with three-quarters of girls (77%). However, there was little difference in the proportions of boys and girls whose teachers reported experienced these behaviours once a month or more frequently.

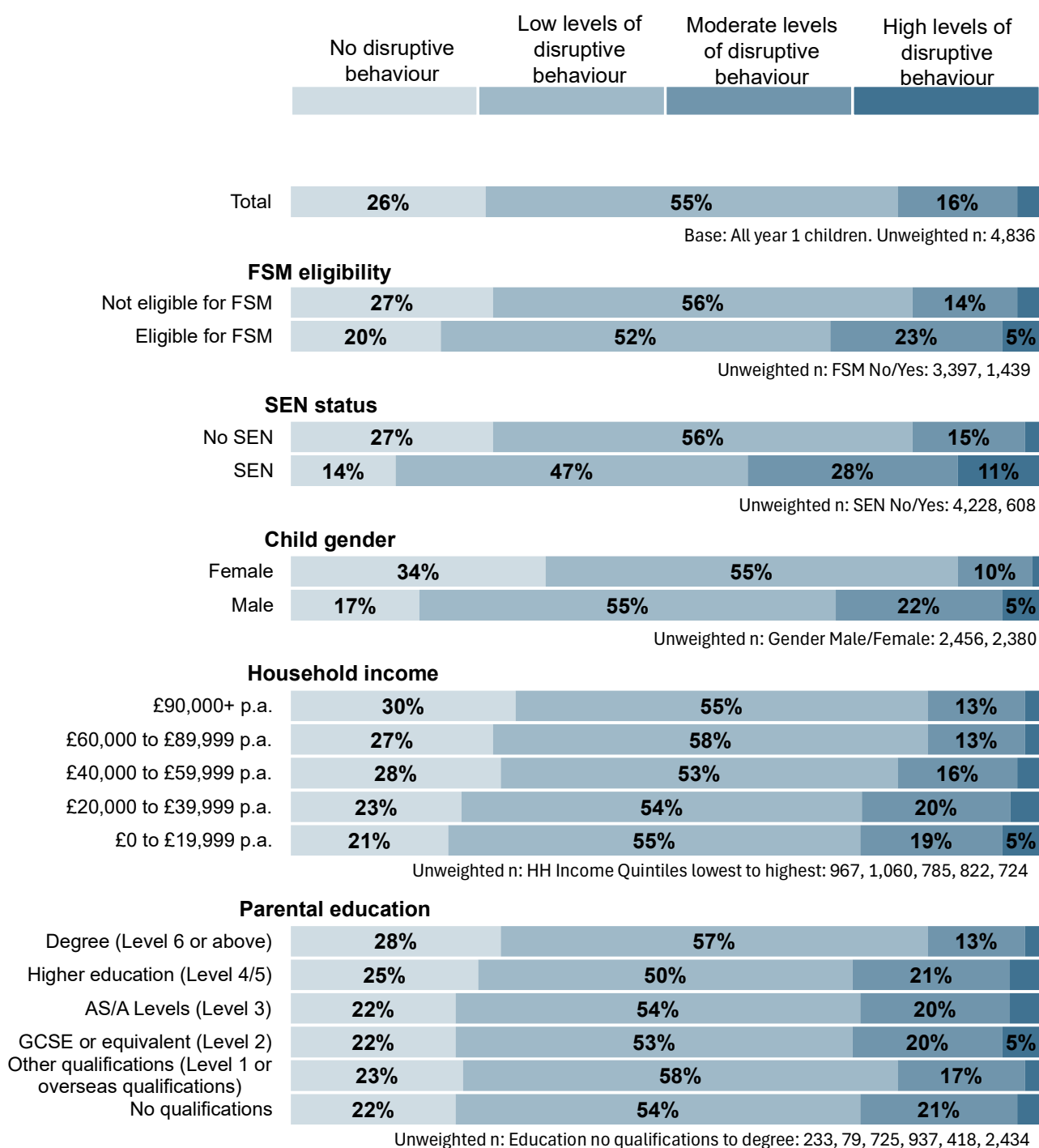
6.4.1.2 Displaying bullying behaviours

Figure 44 shows an association between teacher reports of children purposely hurting or picking on others and all the demographics explored in this chapter (namely, children's FSM eligibility, SEN status, gender, household income and parental education). As was the case for experiencing bullying behaviours, we note that these are teacher reported, and therefore not all bullying activity might be captured here.

Five to Twelve data demonstrate that 14% of boys were reported by their teachers to have purposely hurt or picked on other children around once a month or more frequently, but this was the case for only 6% of girls.

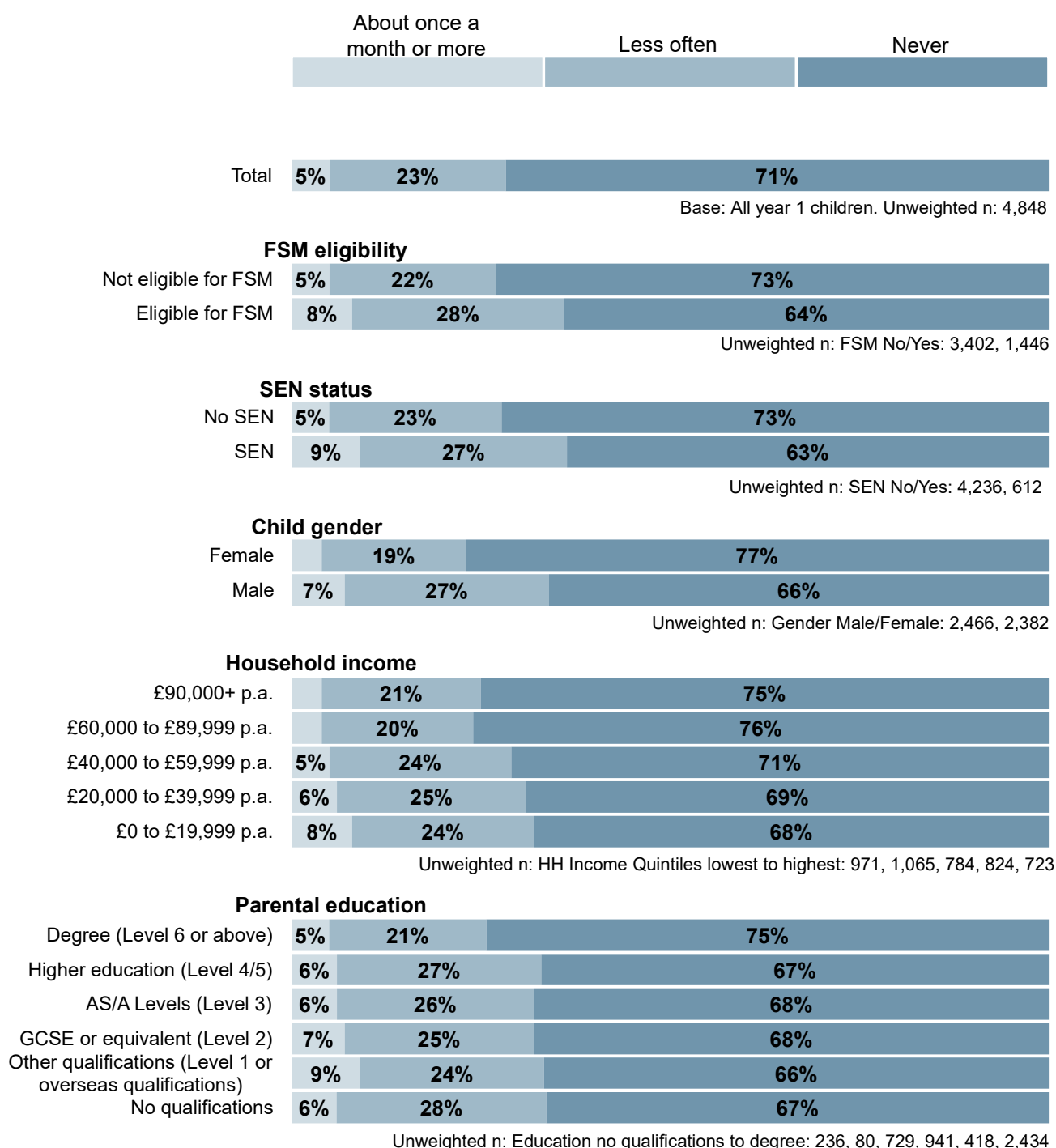
Figure 44 also shows that 15% of children eligible for FSM were reportedly displaying behaviours that could be characterised as bullying around once a month or more frequently, compared with 9% of children not eligible. This may indicate a link between socio-economic factors and bullying behaviour, despite the overall low prevalence of bullying behaviour observed in this age group.

Figure 42: Children's behaviour at school, by demographic characteristics



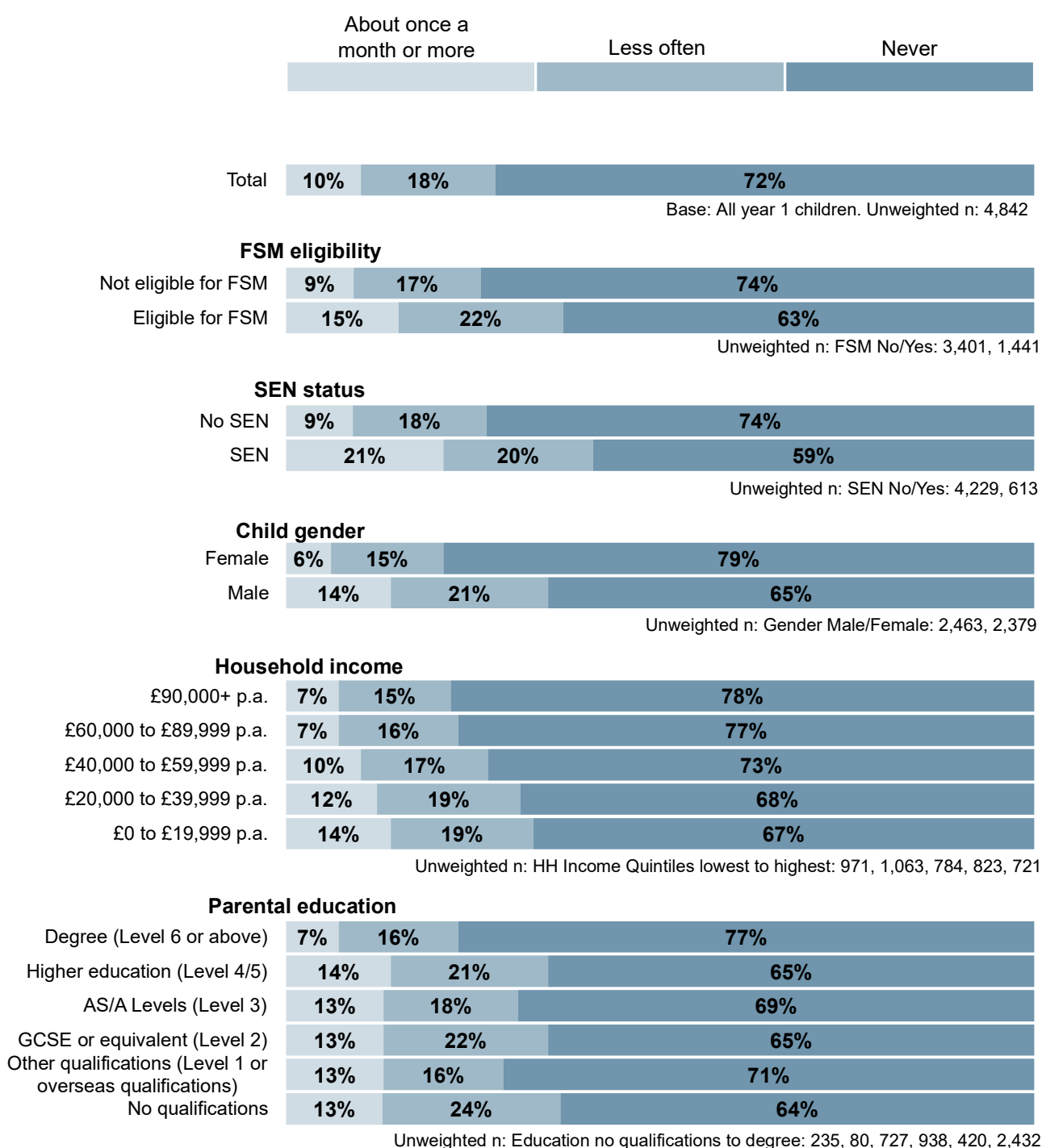
Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

Figure 43: Experience of bullying behaviour, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

Figure 44: Displaying bullying behaviours, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher Survey

As well as being more likely to experience being bullied, children with SEN were reported by teachers to be more likely to purposely hurt or pick on others. It should be noted that these behaviours may be more likely to be exhibited by a child with SEN as a response, for example, to feeling overwhelmed or dysregulated. However, teachers were asked specifically about purposeful behaviour and in response just over one-fifth of teachers said that children with SEN purposely hurt or picked on others around once a month or more frequently (21%) compared with 9% of children with no SEN. This includes 6% of children with SEN who were estimated by teachers to display these behaviours 'most days'. There was some indication of variability across SEN area of need, but the numbers of children in these groups were too small to make meaningful conclusions.

6.5 Child-teacher closeness

Teachers were asked to respond to five statements about their perceived relationship with each individual child. These statements come from a longer scale, the Student-Teacher Relationship scale (Pianta, 1991) which explores teachers' perceptions of their relationship with students across three areas: conflict, closeness and dependency. Existing evidence suggests that the Student-Teacher Relationship Scale is a well validated measure for measuring relationship quality between student and teacher (Ang, 2005). The statements included in the Five to Twelve study focused on closeness. Table 28 presents the responses to the individual items that make up the child-teacher closeness scale. The statements in the table are ordered by highest to lowest percentage of 'definitely applies'.

Table 28 shows that all the individual statements applied (that is 'applies somewhat' or 'definitely applies') to the majority of children, indicating that most teachers felt that they had a close relationship with children. For example, nearly three-quarters of children 'definitely' beamed with pride when their teachers praised them (72%) and just over one-half were perceived to 'definitely' value their relationship with their teachers (56%). Furthermore, just under one-half of children 'definitely' sought comfort from their teacher when upset (48%) and openly shared their feelings and experiences with their teacher (47%).

The responses to this question were scored and banded into three categories, 'low' child-teacher closeness, 'moderate' child-teacher closeness and 'high' child-teacher closeness. Further details of the scale and the banding can be found in Appendix I, section 11.9.

The vast majority of children were perceived to have a high degree of closeness in the child-teacher relationship (85%), indicating more positive responses to the five statements. A further 14% of children had a moderate level of closeness and 1% were perceived to have a low level of closeness with their teachers.

Table 28: Responses to the individual statements from the child-teacher relationship scale

Response category	When I praise this child, he/she beams with pride (%)	This child values his/her relationship with me (%)	This child spontaneously shares information about him/herself with me (%)	If upset, this child will seek comfort from me (%)	This child openly shares his/her feelings and experiences with me (%)
Definitely does not apply	<1	<1	2	1	2
Doesn't really apply	1	1	6	4	6
Neutral / not sure	3	10	8	7	9
Applies somewhat	23	33	33	40	35
Definitely applies	72	56	51	48	47
<i>Unweighted Base</i>	<i>4,846</i>	<i>4,845</i>	<i>4,846</i>	<i>4,847</i>	<i>4,847</i>
<i>Weighted Base</i>	<i>4,849</i>	<i>4,848</i>	<i>4,848</i>	<i>4,850</i>	<i>4,849</i>

Base: All year 1 children

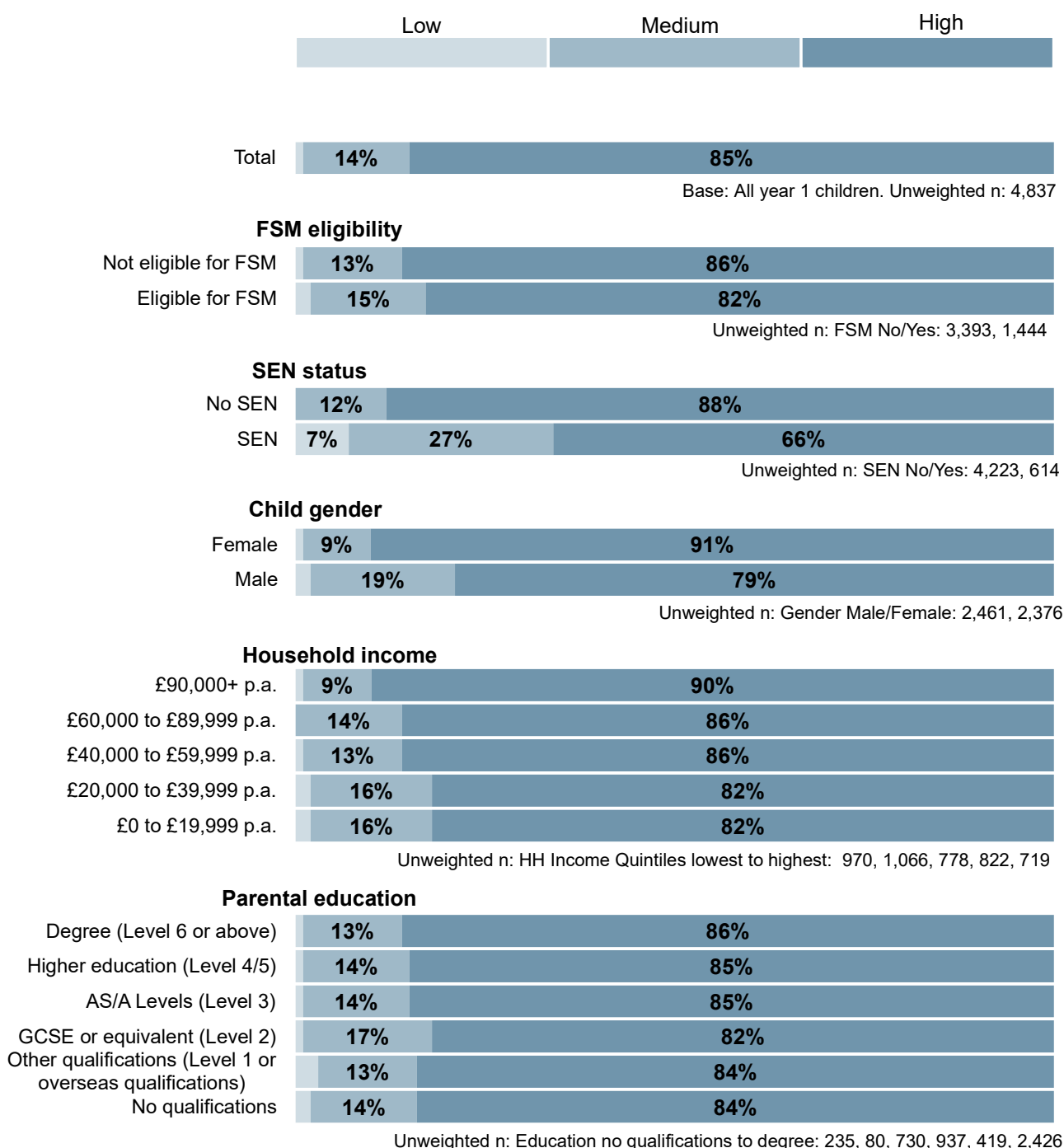
Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

6.5.1 Demographic differences in child-teacher closeness

Figure 45 shows children's FSM eligibility, SEN status, gender and household income are related to child-teacher closeness. There was no relationship between parental education and child-teacher closeness.

Figure 45 highlights a disparity in child-teacher relationships between children with SEN and those without. There was a difference of 22 percentage points for perceived high child-teacher closeness between children with SEN (66%) and children without (88%). Correspondingly, 7% of children with SEN had a low degree of child-teacher closeness, but the proportion for children with no SEN was less than 1%. With only cross-sectional first wave Five to Twelve data, it is difficult to determine the reasons for this difference. Children with SEN are more likely to spend time out of the class and in one-to-one or smaller group settings with support staff, thus the child may have exposure to other close relationships with teaching/support staff. However, it could be that there are barriers, related to the child's area of need, that means they do not engage with their teachers in a way that indicates a positive child-teacher closeness based on the scale. In the longer term, Five to Twelve aims to explore causality. This finding is a possible area of inquiry for future waves of the study.

Figure 45: Child-teacher closeness, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

There were also differences between perceived child-teacher closeness for boys and girls. As shown in Figure 45, 91% of girls had a high degree of child-teacher closeness compared with 79% of boys. This difference is further explained by more boys having a moderate degree of child-teacher closeness (19% boys to 9% girls) rather than by large differences in the low closeness category (2% boys and 1% girls).

While there were associations between child-teacher closeness and FSM eligibility, as well as across household income quintiles, the differences were smaller than observed for gender and SEN.

6.6 Tutoring at school

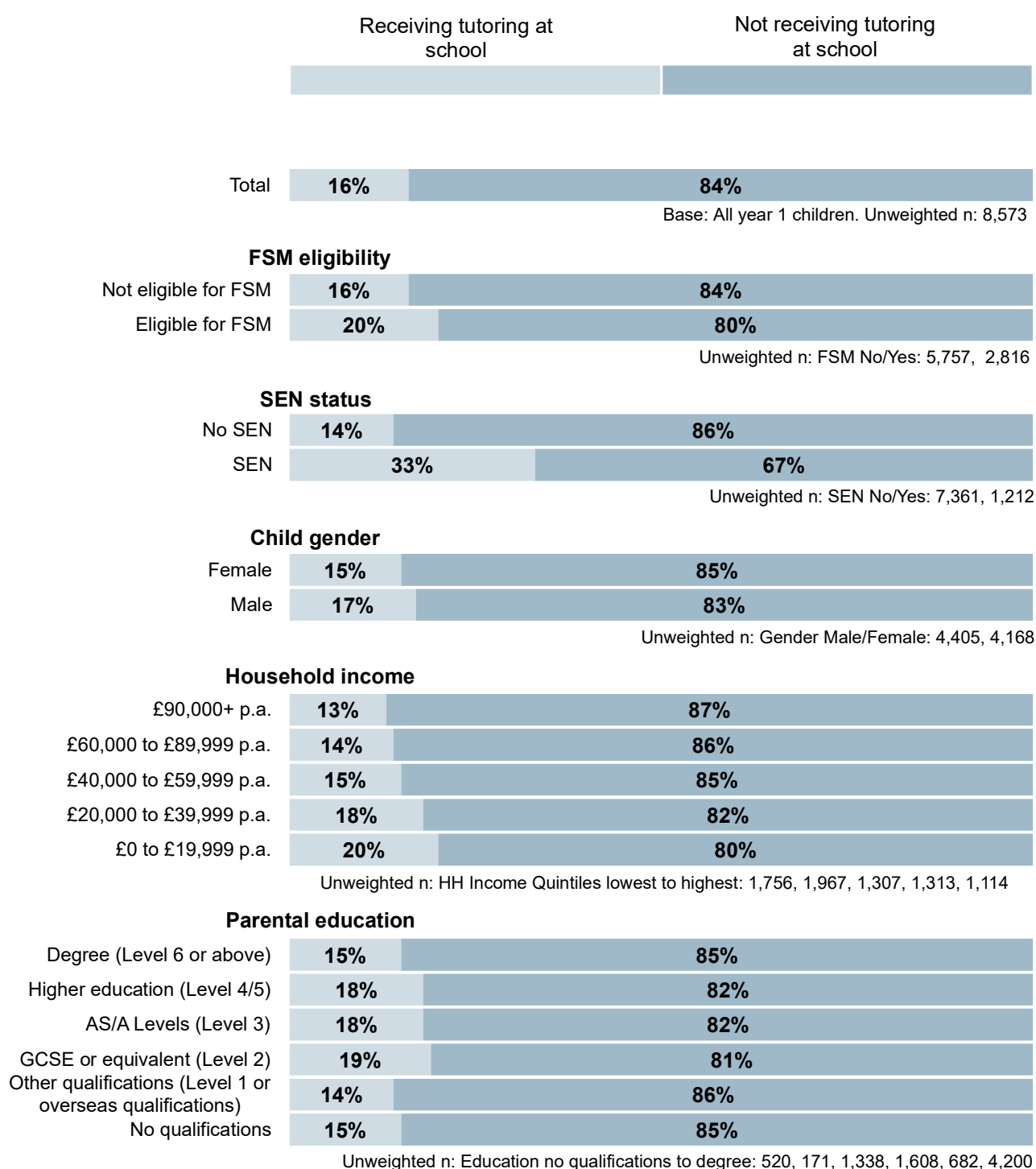
Co-resident parents (main informants, rather than teachers, as for the rest of this chapter) were asked whether their child was receiving tutoring in maths, English or other academic subjects organised by school. Sixteen per cent of co-resident parents/carers were aware their child was receiving tutoring.

6.6.1 Demographic differences in tutoring at school

Figure 46 shows children's FSM eligibility, SEN status, gender, household income and parental education are associated with the likelihood of receiving tutoring at school. As shown in Figure 46, the proportion of children with SEN receiving tutoring at school was more than double that of children with no SEN (33% and 14% respectively). A follow up question to the main informant asked how the tutoring was being delivered. Of the children receiving any kind of tutoring, a larger proportion of children with SEN received one-to-one tuition (51%), compared with children with no SEN who received one-to-one tutoring (16%).

There was a small difference in the proportion of children eligible for FSM and not eligible for FSM who were receiving tutoring (20% and 16% respectively). Figure 46 also shows an inverse relationship between household income and receipt of tutoring at school, although the gradient is small. For example, 20% of children in the least affluent homes for household income (that is, those in the first quintile for household income) were receiving tutoring at school, compared with 13% in the most affluent homes (that is, those in the fifth quintile).

Figure 46: Tutoring at school, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/carer survey

6.7 Support at school

Teachers were asked about the additional type of support the child received at the school. Teachers ticked 'Yes' or 'No' for each type of support as children may have been receiving multiple types of learning support. The proportion of children receiving each type of support is presented in Table 29, in order of prevalence.

Table 29: Proportion of children receiving support at school

Type of support	Yes (%)	Unweighted Base	Weighted Base
Small group learning support (such as support with reading or maths)	39	4,843	4,839
One-to-one learning support (such as support with reading or maths)	22	4,831	4,826
Speech and language therapy/support	14	4,821	4,818
Targeted wellbeing support	13	4,827	4,820
Psychological support (such as Educational Psychologist) or Behavioural management programme	6	4,828	4,823
Physiotherapy or occupational therapy/support (such as support with fine-motor or gross-motor skills)	5	4,831	4,825
English language or bilingual programme	2	4,827	4,821

Base: All year 1 children

Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

Teachers reported that small group learning support was the most common type of support received by children (39% of children), followed by one-to-one learning support (22%). This question, answered by teachers, overlaps somewhat with the question in the parent/carer survey about 'tutoring' (discussed in section 6.6). The findings from the teacher survey suggest levels of small/one-to-one support were higher than those reported by parents. It is reasonable to expect that teachers would have a greater awareness of the support children receive within their school day. While this suggests that parents/carers may not always be aware of the additional support their child is receiving, it also points to different types of support being offered by schools, including similar but less formal interventions than tutoring.

Psychological support, physiotherapy or occupational therapy/support and English language support were less common types of support reported for this age group. Therefore, the following section will only focus on demographic differences across the four most common areas of support, namely small group learning, one-to-one learning, speech and language and wellbeing support.

6.7.1 Demographic differences in support at school

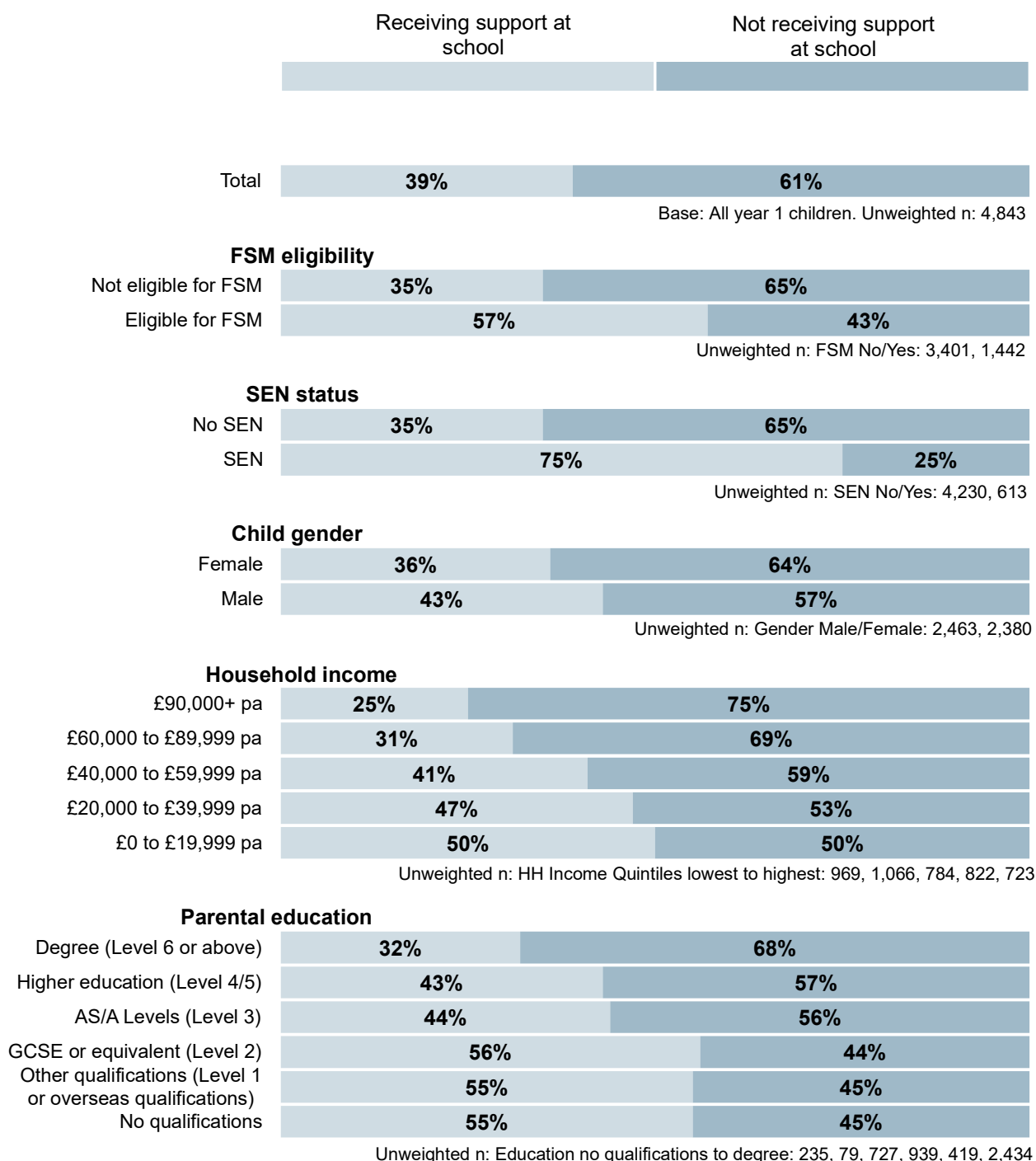
Figure 47 to Figure 50 demonstrates that FSM eligibility, SEN, gender, household income and parental education are associated with receiving small group learning support, one-to-one learning support, speech and language support and wellbeing support at school.

As might be expected, support services were more common for children with SEN than without. This was true across the four most common areas of support. The largest difference was observed with speech and language therapy/support, where 65% of children with SEN were receiving this type of support, compared with just 7% of children with no SEN. Again, this is understandable given that a special educational need had been identified for these children.

There were also differences in support services by FSM eligibility. As shown in Figure 47, 57% of children eligible for FSM were receiving small group learning support, compared with 35% of children not eligible. This is promising, as tutoring interventions can be particularly effective for disadvantaged pupils (Dietrichson and others, 2017; Torgerson and others, 2018). There was also a 14-percentage point difference in the proportion of children receiving wellbeing support between FSM-eligible children (24%) and children not eligible for FSM (10%).

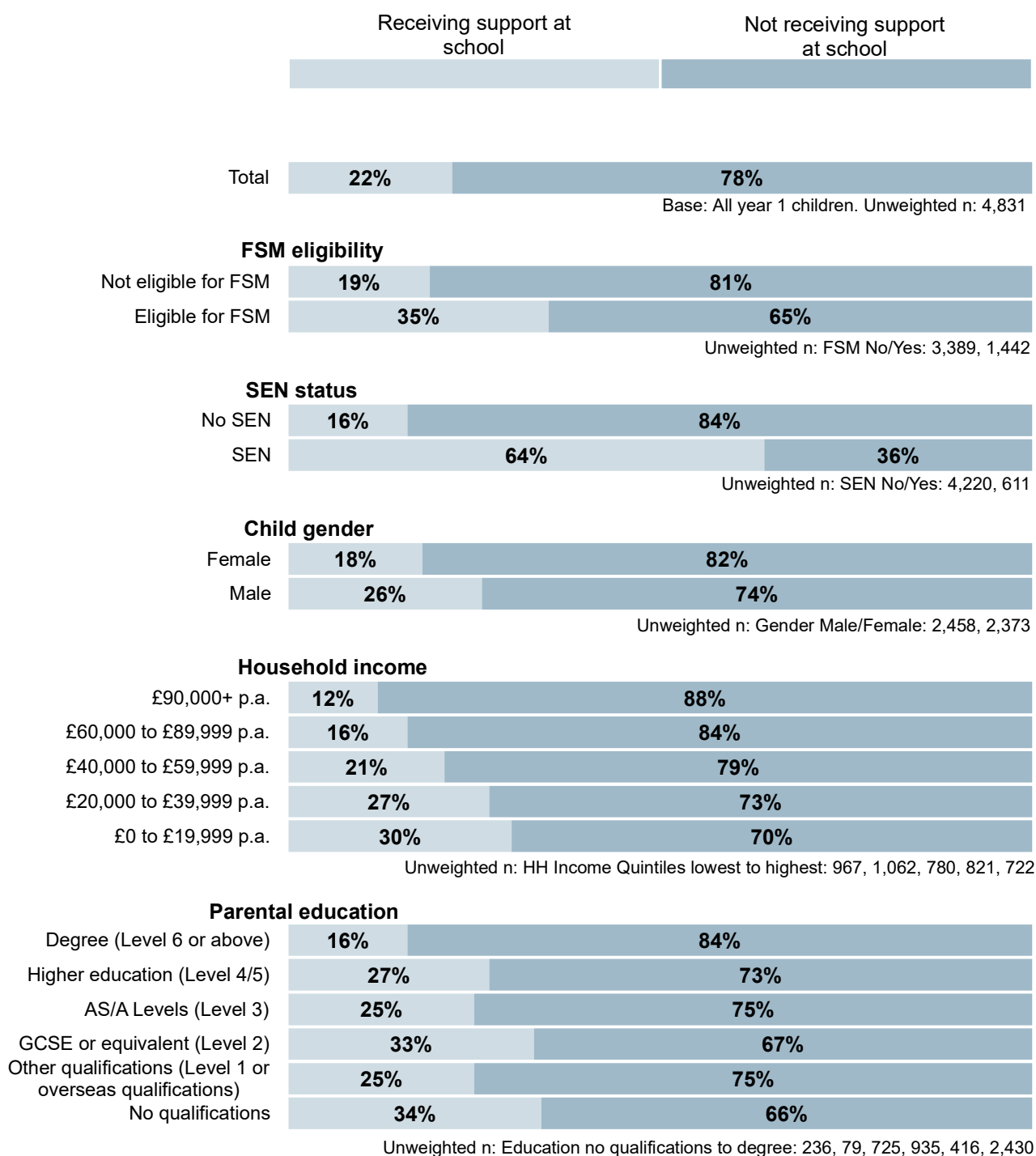
Significant associations were observed between both household income and co-resident parental education with the four most common support types. Additional support in school was more likely to be provided for children from households with lower income and those with lower co-resident parental levels of education. For the one-to-one support and group support this might be expected, given the link to attainment (discussed earlier in the chapter). However, it is also worth highlighting the relationship with household income and wellbeing support (Figure 50). Children with annual household incomes of under £39,999 (18%) were more likely to be receiving wellbeing support compared with children with annual household incomes of £60,000 and over (8%). The same pattern appeared for speech and language support. In the lowest household income quintile, 19% of children accessed this type of support, compared with 7% in the highest income quintile. This suggests additional support needs among children from more disadvantaged households.

Figure 47: Received small group learning support at school, by demographic characteristics



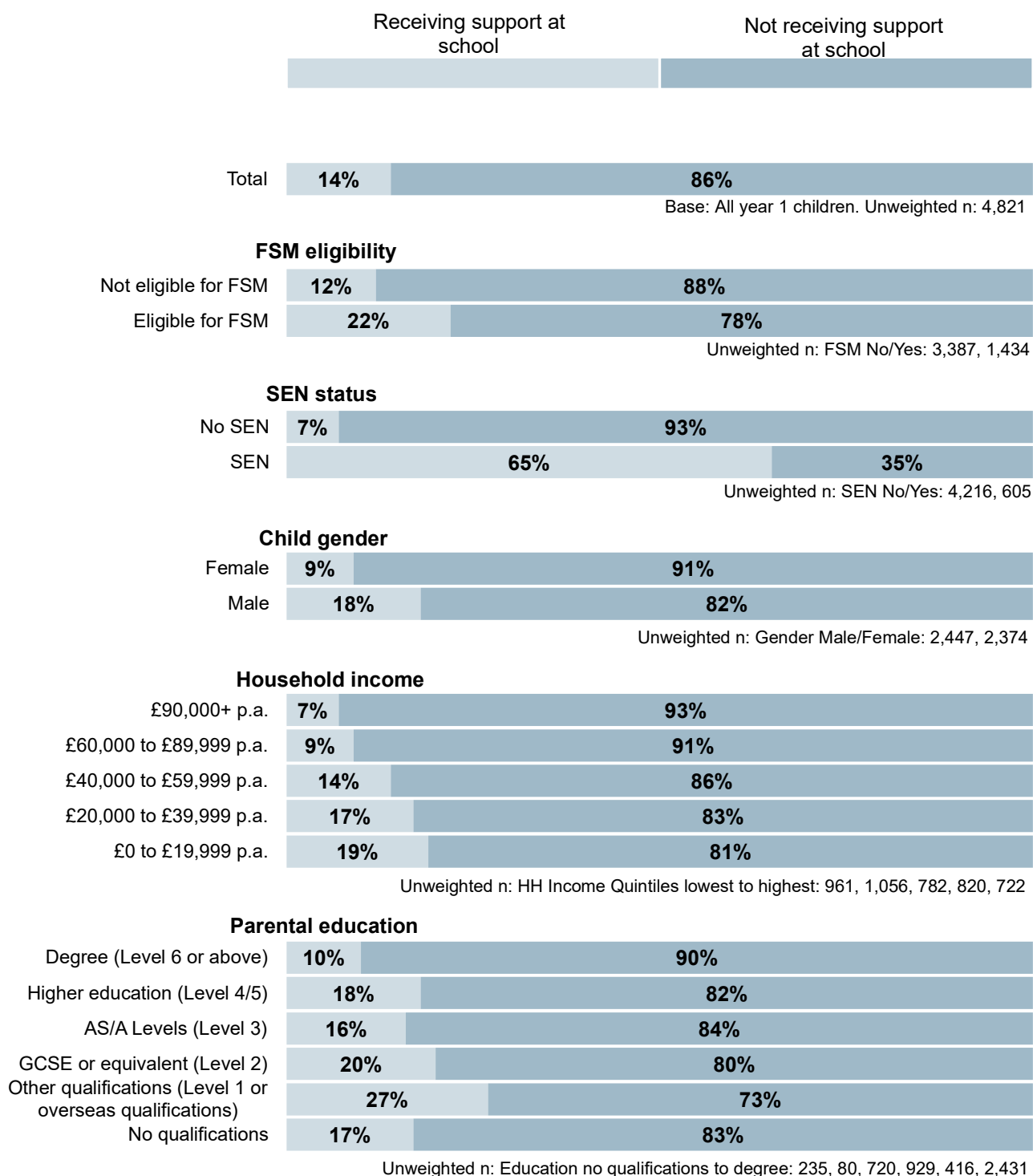
Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

Figure 48: Received one-to-one learning support at school, by demographic characteristics



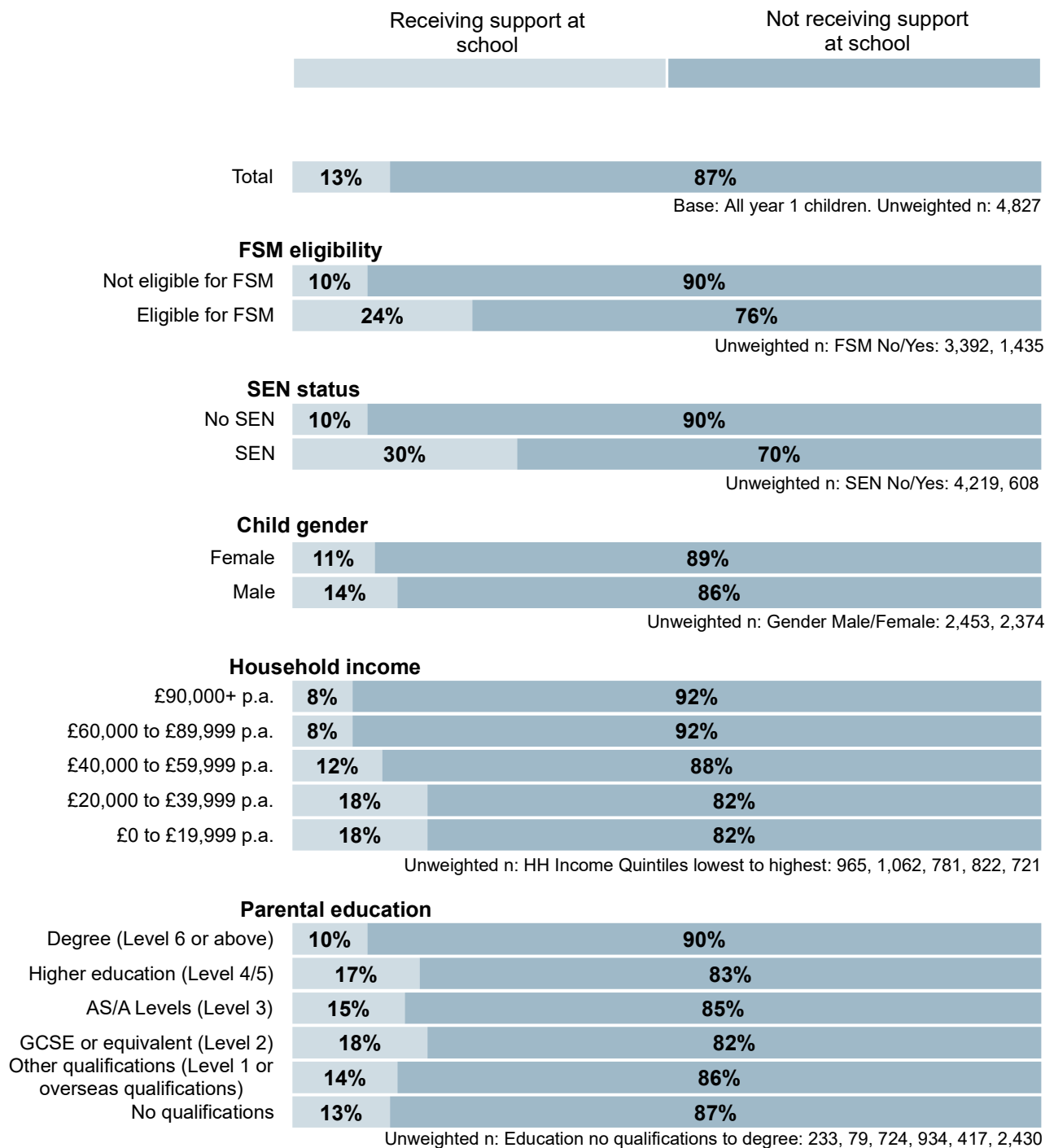
Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

Figure 49: Received speech and language support at school, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

Figure 50: Received wellbeing support at school, by demographic characteristics



Source: Five to Twelve year 1 (November 2023 - August 2024), Teacher survey

6.8 Summary

This chapter has explored aspects of the child's environment in primary school including attainment predictions and grouping by attainment, behaviour at school, bullying behaviour, child-teacher relationships, tutoring and support at school.

The majority of children in the study were predicted to achieve the expected standards in maths and English at the end of primary education. Two-thirds of children in the study are taught English and maths in groupings based on their attainment and ability. This is slightly higher than indicated by other evidence on attainment grouping practices for this age group, perhaps signifying an increase in this practice.

Socio-economic disparities in attainment predictions and grouping are already evident for year 1 cohort children. Children who are eligible for free school meals (FSM), from households with lower incomes and whose parents have lower levels of education are less likely to be predicted by teachers to achieve the expected standards at the end of primary school and are less likely to be in higher attainment groups. These disparities are wider still for cohort children with SEN. While developmental disparities exist before children even start primary education, these findings may also prompt consideration of the influence of teachers' early expectations and grouping practices on children's future outcomes.

The findings in this chapter also reveal that behaviour in school among the cohort children is generally very positive, with only small proportions of children identified by teachers as engaging in disruptive behaviours, bullying others or experiencing bullying behaviour themselves. This study provides important insights on the prevalence of bullying for this age group, albeit based on teacher perceptions rather than children's. The generally amicable environment in primary school may be facilitated by typically close relationships between teachers and children. However, boys, children with SEN, and children eligible for FSM were more likely to both experience and display bullying behaviours and engage in disruptive behaviour. This indicates the importance of identifying and addressing these early behavioural concerns and experiences to prevent escalation and negate detrimental effects on children's development.

Some cohort children are provided with additional support and services in school to help meet their needs. This is most typically small group or one-to-one learning support or tutoring. Psychological support, physiotherapy or occupational therapy/support and English language support were less common types of support reported for this age group. This may reflect that these types of support may only be provided where needs are complex and they may be the result of a formal diagnosis and application process which may be less likely at this early point in the school journey. It may be interesting to track whether this early support is associated with improved educational trajectories for these children.

Overall, the findings in this chapter indicate that demographic differences are significantly associated with a child's experience of school at an early age. The findings have implications for both the targeting of support to help mitigate these differences and the need to track their longer-term effects.

7. Child Cognitive Assessments

Key Findings:

- cognitive ability tests in the Five to Twelve study included Naming Vocabulary, Picture Similarities, and Recall of Digits Backwards. These tests assessed verbal ability, non-verbal reasoning, and working memory, respectively.
- children with special educational needs (SEN) on average scored lower across all tests compared to those with no SEN.

Verbal ability (Naming Vocabulary):

- scores were strongly associated with parental education: children with degree-educated parents scored higher on average.
- socioeconomic factors were also strongly associated with scores: children eligible for free school meals (FSM) scored lower on average.
- girls scored higher than boys on average.

Non-verbal reasoning (Picture Similarities):

- significant but less pronounced association with parental education. Again, children with degree-educated parents scored higher on average.
- socioeconomic status again was associated with scores: children from lower-income households scored lower on average.
- girls scored higher than boys on average.

Working memory (Recall of Digits Backwards):

- strong correlation with parental education: children with degree-educated parents scored higher. Socioeconomic status impacted scores: children eligible for FSM scored lower on average.

7.1 Introduction

This chapter provides an assessment of children's cognitive ability at the start of their primary school years and variation between groups. Cognitive ability tests play a significant role in educational research. They tap into a range of domains of intellectual capability including verbal ability, reasoning, working memory, attention and speed of processing. These tests aim to capture intellectual potential and capacity for learning

rather than acquired knowledge. As such, cognitive tests administered at the start of children's primary education can provide an invaluable baseline from which to understand their subsequent trajectory of educational attainment.

Cognitive abilities that underpin learning are developing quickly up to and during primary school years. While existing evidence from longitudinal studies finds stability in cognitive abilities as children grow, they are not fixed, with children developing at different speeds and in response to the sum of their experiences. There is strong existing evidence of the positive correlation between cognitive ability at an early age and subsequent educational attainment (see the Five to Twelve literature review, Harland and others, 2024, including Susperreguy and others, 2018). However, this evidence demonstrates how socioeconomic, environmental and demographic factors are associated with both the initial level of cognitive ability found at one point in time and changes in cognitive ability as children age. Cognitive ability by year 1 has already been subject to influence by environmental factors. For instance, Melhuish and Gardiner (2020) found an association with home learning environment leading up to year 1 using the Study of Early Education and Development (SEED). Growing Up in Scotland shows a widening gap in cognitive ability between ages 3 and 5 in relation to parental highest level of educational attainment (Bradshaw, 2011). Also evidence from the Millennium Cohort Study (MCS) finds a link between persistent poverty and cognitive development (Dickerson and Popli, 2012).

The Five to Twelve study administered three cognitive assessments at year 1. These provide a vital part of our understanding of children at the start of their formal education. They demonstrate the variation already apparent by age 5 and 6 and will enable future analyses to explain differences in educational attainment during the primary school years. The British Ability Scales 3 (BAS 3; Elliott and Smith, 2011) is a comprehensive set of individually administered tests designed to assess the cognitive abilities of children and adolescents, including children with SEN and disabilities. These are rigorously developed and widely administered, including in population studies comparable to Five to Twelve, such as MCS and SEED. Three BAS 3 tests were selected for this study, taking account of existing evidence on links to educational attainment, the age of the children and the setting for administration (in children's homes with a survey interviewer):

- Naming Vocabulary: measures expressive language ability
- Picture Similarities: measures non-verbal reasoning
- Recall of Digits Backwards: measures working memory

All children in the study were eligible to participate and participation in the assessments was high, with around 96% taking the Naming Vocabulary test (the first in the sequence). However, there were limitations to participation with each test. For example, 84% of those with special educational needs (SEN) participated in Naming Vocabulary (following consent from the parent and assent from the child), compared to 98% of those without

(this was as low as 66% of children with autism and 71% of cognition and learning). Test scores were obtained for 8,254 children for Naming Vocabulary, 8,147 for Picture Similarities and 7,669 for Recall of Digits Backwards, following checks on the tests' administration for each child and an interpolation process for Recall of Digits Backwards. Please refer to Appendix F, section 11.6 for details of the interpolation.

The tests are designed to be distinctive – demonstrating different aspects of cognitive ability. There were positive correlations between the three test results, confirming that children who scored highly in one test were more likely than other children to score highly in the others. However, although these associations were quite strong (Pearson correlation coefficients between the three tests ranged from 0.325 to 0.392) individual children were often stronger in one area than another.

Findings in the rest of this section are based on 'T-scores' derived for each child for each of the tests. These scores are derived from children's responses to the set of items asked and take account of their age and the difficulty of the test to produce a standard score that can be compared between individuals. The scores range from 20 to 80, with higher scores indicating higher attainment in that domain. See appendix section 11.6 for a discussion of difference in mean scores between the Five to Twelve cohort and the standardisation sample. In common with the rest of this report, all differences noted have been tested for statistical significance unless otherwise stated.

7.2 Naming Vocabulary

The Naming Vocabulary scale is a measure of verbal ability. Early language attainment has been shown in other evidence to be strongly linked to subsequent attainment (see for instance Parsons and others, 2013). The test consists of a booklet of coloured pictures of objects which the child is shown one at a time and asked to name. As such it assesses the spoken vocabulary of young children, the development of a vocabulary of nouns and the ability to attach verbal labels to pictures. It requires recall of words from long-term memory rather than understand the meaning of words or sentences (see BAS 3 Technical Manual, Elliott and Smith, 2011).

The overall mean T-score for Naming Vocabulary was 54.0, with a standard deviation of 10.9.

7.2.1 Demographic differences in Naming Vocabulary scores

Table 30 compares the mean T-scores (which are age-standardised and range from 20 to 80) for different groups.

Year 1 children with SEN achieved scores that were, on average, considerably below those of children with no SEN among those who were able to complete the test (as noted

above, a larger proportion of children with SEN did not participate). Overall, those with SEN had a mean score of 47.0 compared to 54.9 among those who did not have SEN according to the National Pupil Database (NPD) measure. Levels were lowest among those with cognition and learning (42.3) and autism spectrum needs (44.2).

There was a strong positive association of verbal ability with highest level of parental education. Children with parents educated to degree level or above had a mean T-score of 55.4 compared to 47.2 for children whose parents had no qualifications. This reflected previous evidence, including at age 5 among the SEED cohort (see Melhuish and Gardiner, 2020).

Socioeconomic factors were also associated with verbal ability scores. Children eligible for free school meals (FSM) had lower scores than those not eligible (a mean of 51.1 compared to 54.7). Those in lower income households had lower scores than those in higher income households (51.1 for those in the lowest compared to 58.5 among those in the highest band).

Girls had a slightly higher mean score than boys in year 1 (54.8 compared to 53.3).

Multivariate analysis was conducted to indicate the level of association of these demographic and socioeconomic factors with verbal ability scores independently from one another. This confirmed that children with SEN, those with parents with lower levels of education, those eligible for FSM and boys achieved lower mean scores for verbal ability, controlling for the other factors. See section 11.10 for the multivariate analysis table output.

Table 30: Naming Vocabulary T-score means

		Mean	SE	95% Confi- dence In- terval: Lower	95% Confi- dence Interval: Upper	SD	p- value	Un- weighted Base
Total		54.0	0.2	53.7	54.4	10.9	n/a	8,254
Not eli- gible for FSM		54.7	0.2	54.3	55.1	10.9	<.001	5,600
Eligi- ble for FSM		51.1	0.2	50.7	51.6	10.5	<.001	2,654
No SEN		54.9	0.2	54.5	55.2	10.4	<.001	7,244
With SEN		47.0	0.5	46.0	48.0	12.7	<.001	1,010
SEN type	No SEN	54.9	0.2	54.5	55.2	10.4	<.001	7,244
	Cognition and Learning	42.3	1.9	38.4	46.1	13.7	<.001	87
	Commu- nication and Inter- action	46.7	0.6	45.6	47.8	11.7	<.001	565
	Social, Emotional and Men- tal Health	53.7	1.1	51.5	55.8	11.8	<.001	134
	Physical and Sen- sory Need	46.7	1.8	43.1	50.3	12.5	<.001	57
	Autism	44.2	1.6	41.1	47.4	15.0	<.001	110
	Other	47.0	1.9	43.4	50.7	12.6	<.001	57
Child's gen- der	Male	53.3	0.2	52.9	53.8	11.1	<.001	4,203
	Female	54.8	0.2	54.3	55.2	10.6	<.001	4,050

Table 30 Continued: Naming Vocabulary T-score means

		Mean	SE	95% Confi- dence Interval: Lower	95% Confi- dence Interval: Upper	SD	p- value	Un- weighted Base
House- hold in- come	£90,000+ pa	58.5	0.3	57.8	59.1	9.5	<.001	1,109
	£60,000- £89,999 pa	56.4	0.3	55.9	57.0	9.7	<.001	1,276
	£40,000- £59,999 pa	54.2	0.3	53.5	54.8	10.5	<.001	1,268
	£20,000- £39,999 pa	51.7	0.3	51.1	52.3	10.6	<.001	1,878
	£0- £19,999 pa	51.1	0.3	50.5	51.8	10.7	<.001	1,667
Paren- tal ed- ucation	Degree (Level 6 or above)	55.4	0.2	54.9	55.8	11.0	<.001	4,092
	Higher education (Level 4/5)	54.4	0.4	53.5	55.2	10.0	<.001	645
	AS/A Levels (Level 3)	53.9	0.3	53.3	54.4	9.8	<.001	1,555
	GCSE or equiva- lent (Level 2)	51.9	0.4	51.1	52.7	10.8	<.001	1,279
	Other qualifica- tions (Level 1, overseas qualifica- tions)	45.6	1.0	43.5	47.6	10.2	<.001	159
	No quali- fications	47.2	0.7	45.8	48.6	11.5	<.001	490

Base: All year 1 children able to complete the test

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/carers survey

7.3 Picture Similarities

The Picture Similarities scale measures the non-verbal reasoning ability of young children. It is an indicator of an ability to think logically and problem-solve in novel situations, which is a foundational element of intelligence and important in subsequent attainment.

The test is administered by interviewers using a booklet of 35 increasingly difficult items (children start at different points depending on their age). For each item, the child is shown a row of four pictures in the booklet. The child places a separate card with a single picture below the booklet picture that it goes with best. This requires recognition of a relationship based on a common concept or element. For example, the child should match a picture of a foot with the that of a sock, given pictures of different types of clothing. As such, it does not rely on the child's language skills at this age which may be less developed in groups such as those where English is not the first language in the household or for particular types of SEN.

The overall mean T-score for Picture Similarities was 55.3, with a standard deviation of 12.7.

7.3.1 Demographic differences in Picture Similarities scores

Table 31 shows that differences in mean T-scores in relation to SEN were pronounced for this non-verbal reasoning test. Overall, those with SEN had a lower mean score of 49.7 compared to 55.9 among those who did not have SEN according to the NPD measure. Levels were lowest among those with autism spectrum (45.3) and cognition and learning needs (48.1).

The relationship of non-verbal reasoning scores with highest level of parental education was statistically significant, but not as substantial as for the verbal ability test. Children with parents educated to degree level had a mean of 56.5 compared to 53.4 for children whose parents had no qualifications.

There were further strong associations with socioeconomic status, with those eligible for FSM having a lower mean score than those who were not (53.3 compared to 55.7) and those in the lowest income group scoring below those in the highest (53.6 compared to 57.2).

As with verbal ability, girls had a higher mean score than boys (56.1 compared to 54.5).

Multivariate analysis was conducted to indicate the level of association of these demographic and socioeconomic factors with non-verbal reasoning scores independently from one another. This confirmed that children with SEN, boys and those eligible for FSM achieved lower mean scores for non-verbal reasoning, controlling for the other factors.

Those with parents educated to degree level or above were confirmed to achieve higher scores, but education below this level was not statistically significant. The socioeconomic factors – FSM eligibility and parental education – were found to have relatively weaker associations with scores for non-verbal reasoning than the tests for verbal ability and working memory. See section 11.10 for the multivariate analysis table output.

Table 31: Picture Similarities T-score means

		Mean	SE	95% Confi- dence Interval: Lower	95% Confi- dence Interval: Upper	SD	p- value	Un- weighted Base
Total		55.3	0.3	54.8	55.8	12.7	n/a	8,147
Not el- igible for FSM		55.7	0.3	55.2	56.3	12.5	<.001	5,545
Eligi- ble for FSM		53.3	0.4	52.5	54.0	13.0	<.001	2,602
No SEN		55.9	0.3	55.4	56.4	12.3	<.001	7,213
With SEN		49.7	0.6	48.5	50.9	14.7	<.001	934
SEN type	No SEN	55.9	0.3	55.4	56.4	12.3	<.001	7,213
	Cogni- tion and Learn- ing	48.1	2.1	43.9	52.3	15.6	<.001	76
	Com- muni- cation and In- terac- tion	49.4	0.7	48.0	50.9	14.3	<.001	530
	Social, Emo- tional and Mental Health	51.9	1.4	49.1	54.7	13.5	<.001	129
	Physical and Sensory Need	52.9	2.6	47.8	58.0	17.0	<.001	55
	Autism	45.3	1.6	42.1	48.4	15.0	<.001	91
	Other	53.7	2.0	49.8	57.6	15.0	<.001	53
Child's gender	Male	54.5	0.3	53.9	55.1	12.9	<.001	4,123
	Female	56.1	0.3	55.6	56.7	12.4	<.001	4,023

Table 31 Continued: Picture Similarities T-score means

		Mean	SE	95% Confidence In- terval: Lower	95% Confidence Interval: Upper	SD	p- value	Unweighted Base
House- hold income	£90,000+ pa	57.2	0.4	56.5	58.0	11.6	<.001	1,102
	£60,000- £89,999 pa	56.0	0.4	55.1	56.9	12.5	<.001	1,270
	£40,000- £59,999 pa	55.2	0.4	54.4	56.0	12.3	<.001	1,254
	£20,000- £39,999 pa	53.5	0.4	52.8	54.3	12.3	<.001	1,851
	£0-£19,999 pa	53.6	0.5	52.7	54.5	12.7	<.001	1,638
Paren- tal ed- ucation	Degree (Level 6 or above)	56.5	0.3	55.9	57.1	12.6	<.001	4,052
	Higher ed- ucation (Level 4/5)	54.5	0.5	53.5	55.6	12.3	<.001	637
	AS/A Lev- els (Level 3)	54.3	0.4	53.5	55.1	12.0	<.001	1,543
	GCSE or equivalent (Level 2)	52.9	0.5	51.9	53.9	13.0	<.001	1,246
	Other qual- ifications (Level 1, overseas qualifica- tions)	53.8	1.2	51.5	56.1	13.3	<.001	158
	No qualifi- cations	53.4	1.0	51.5	55.4	14.3	<.001	478

Base: All year 1 children able to complete the test

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/carers survey

7.4 Recall of Digits Backwards

Recall of Digits Backwards (RoDB) assesses working memory by requiring children to recall sequences of numbers that are read out by the interviewer – in reverse order. The test starts with 2-digit recall and progresses to 7-digit recall if the child can progress that far. This is a relatively demanding test, requiring both a short-term memory process and manipulation of information in reversing the digits recalled. It draws on abilities relating to attention and processing, working memory, and the ability to follow complex instructions, all of which are important in comprehension and learning throughout childhood (Donati and others, 2019, cited in Harland and others, 2024).

Mean T-scores for RoDB are provided in Table 32. The overall mean T-score for Recall of Digits Backwards was 57.2, with a standard deviation of 12.7. Due to differences in the administration of the test compared with the BAS3 standard approach, interpolation was required for the data in a proportion of cases to provide scores for all required items. See Appendix F in section 11.6 for details.

7.4.1 Demographic differences in Recall of Digits Backwards scores

Table 32 shows that there was a particularly large difference in mean scores between those with SEN and with no SEN, with those with SEN achieving lower scores on average (47.7 compared to 58.2).

The relationship with highest level of parental education was strong. Children with parents educated to degree level or above had a mean score of 59.2, compared to 53.5 for those with a Level 2 qualification and 51.8 for children whose parents had no qualifications.

Socioeconomic status was important, with those eligible for FSM having a lower mean score than those who were not (53.1 compared to 58.1) and those in households with lower incomes scoring lower on average than those with higher incomes (53.9 among the lowest income band compared to 61.3 among the highest).

Unlike the other cognitive tests, working memory as measured by the RoDB assessment was not found to be associated with gender.

Multivariate analysis was conducted to indicate the level of association of these demographic and socioeconomic factors with working memory scores independently from one another. This confirmed that children with SEN and children eligible for FSM achieved lower working memory scores, controlling for the other factors. Children in households where the highest level of education was AS/A level or above achieved higher working memory scores. This analysis also revealed that, unlike with verbal ability and non-verbal reasoning, girls achieved slightly lower working memory scores when controlling for other factors. See section 11.10 for the multivariate analysis table output

Table 32: Recall of Digits Backwards T-score means

		Mean	SE	95% Confidence Interval: Lower	95% Confidence Interval: Upper	SD	p- value	Un- weighted Base
Total		57.2	0.2	56.8	57.6	12.7	n/a	7,669
Not eligible for FSM		58.1	0.2	57.7	58.5	12.3	<.001	5,205
Eligible for FSM		53.1	0.3	52.5	53.7	13.8	<.001	2,464
No SEN		58.2	0.2	57.9	58.6	12.0	<.001	6,797
With SEN		47.7	0.6	46.5	48.9	15.2	<.001	872
SEN type	No SEN	58.2	0.2	57.9	58.6	12.0	n/a	6,797
	Cognition and Learning	44.3	2.3	39.7	48.9	15.3	<.001	69
	Communication and Interaction	47.7	0.7	46.3	49.2	14.8	<.001	497
	Social, Emotional and Mental Health	51.7	1.5	48.8	54.6	14.3	<.001	120
	Physical and Sensory Need	51.3	2.2	46.9	55.7	14.5	<.001	49
	Autism	41.2	2.0	37.3	45.1	16.5	<.001	87
	Other	49.6	2.5	44.7	54.6	15.4	<.001	50
Child's gender	Male	57.2	0.3	56.7	57.7	13.2	0.756	3,871
	Female	57.3	0.3	56.8	57.8	12.2	0.756	3,797

Table 33 continued: Recall of Digits Backwards T-score means

		Mean	SE	95% Confi- dence Interval: Lower	95% Confi- dence Interval: Upper	SD	p- value	Un- weighted Base
House- hold in- come	£90,000+ pa	61.3	0.3	60.7	61.9	10.4	<.001	1,036
	£60,000- £89,999 pa	59.3	0.3	58.7	60.0	11.4	<.001	1,205
	£40,000- £59,999 pa	57.1	0.4	56.3	57.9	12.4	<.001	1,157
	£20,000- £39,999 pa	55.5	0.4	54.8	56.2	13.2	<.001	1,746
	£0- £19,999 pa	53.9	0.4	53.1	54.7	13.3	<.001	1,547
Paren- tal ed- ucation	Degree (Level 6 or above)	59.2	0.2	58.7	59.7	12.1	<.001	3,805
	Higher education (Level 4/5)	56.6	0.5	55.5	57.7	11.7	<.001	586
	AS/A Levels (Level 3)	56	0.4	55.3	56.8	12.6	<.001	1,453
	GCSE or equiva- lent (Level 2)	53.5	0.4	52.6	54.4	13.3	<.001	1,183
	Other qualifica- tions (Level 1, overseas qualifica- tions)	50.7	1.4	48.1	53.4	14.0	<.001	150
	No quali- fications	51.8	0.9	49.9	53.6	14.7	<.001	462

Base: All year 1 children able to complete the test and where the test data were sufficient for analysis (see section 10.6, Appendix F for detail of interpolation)

Source: Five to Twelve year 1 (November 2023 - August 2024), Parent/carers survey

7.5 Summary

Cognitive ability tests are integral to educational research, assessing various intellectual domains such as verbal ability, reasoning, working memory, attention, and processing speed. These tests focus on intellectual potential rather than acquired knowledge, providing a baseline for understanding children's educational trajectories from primary education onwards.

The Five to Twelve study administered three cognitive assessments at year 1: Naming Vocabulary, Picture Similarities, and Recall of Digits Backwards, using the British Ability Scales 3 (BAS 3). These tests, administered in children's homes, showed variations in cognitive abilities among children aged 5 and 6.

Naming Vocabulary, which measures verbal ability, showed strong associations with parental education and socioeconomic status. Children with SEN scored lower on average, with differences observed between SEN types. Picture Similarities, which assesses non-verbal reasoning, showed similar patterns of association with parental education and socioeconomic status, though less pronounced than verbal ability. Recall of Digits Backwards, which evaluates working memory, revealed large differences between children with and with no SEN, as well as strong associations with parental education and socioeconomic status. Gender differences were apparent in verbal and non-verbal reasoning with girls scoring more highly on average, but no difference was found for the test of working memory. Multivariate analysis confirmed that associations of cognitive test scores with socioeconomic and demographic factors were significant independently of one another.

This section highlights the importance of early cognitive assessments to the future understanding Five to Twelve will provide of educational attainment. It also describes the substantial variation between socioeconomic groups that are already apparent at the start of primary education.

8. Discussion and conclusions

8.1 Establishing a study of primary years

The Five to Twelve study aims to uncover the mechanisms that lead to and perpetuate inequalities and those that promote positive outcomes in the primary school years. Raising educational attainment for all and reducing inequality have been key policy objectives for successive governments. These inequalities at all stages of education underpin wider social outcomes, being strongly associated with future earnings and employment (Farquharson and others, 2022). However, progress in closing disadvantage gaps in educational attainment, including in the primary years, has stalled since 2019 (Education Policy Institute, 2024). The COVID-19 pandemic further exacerbated these and other inequalities, including among children with special educational needs (SEN) and those from disadvantaged backgrounds (Speight and others, 2021; Twist and others, 2022).

In this context, it is crucial for contemporary studies to be accessible to researchers and policymakers to support strategic decision-making concerning policy development, practice enhancement, and resource allocation. The Education and Outcomes Pathways Studies (EOPS) programme, funded by the Department for Education, makes a significant contribution towards this goal. Within this programme, the Five to Twelve study specifically focuses on the primary years through a longitudinal approach. Its goal is to identify how early years educational outcomes develop in that period and to understand the factors that influence this development. This study provides a timely update to the Study of Early Education and Development (SEED), whose cohort members were born between 2010 and 2012, and the Millennium Cohort Study (MCS), with its cohort from 2000 to 2002. Five to Twelve is designed to facilitate broad comparative analysis with these earlier studies while adapting to an educational context that has changed following COVID and with respect to rising SEN diagnoses, technology and social media use.

8.2 Baseline findings

A striking finding in the report is the range of challenges faced by disadvantaged children. This is evident across multiple factors important to later educational success. Even by the start of children's primary school journey, there were wide differences according to the level of financial disadvantage faced by their family and to the personal disadvantage presented by SEN.

Poverty, indicated in the report by eligibility for free school meals (FSM), and SEN both showed strong negative associations with children's health conditions, socio-emotional and behavioural difficulties, physical development and cognitive ability. This is consistent

with the position identified by Kelly and others (2011) for the MCS cohort two decades previously: by age 5 there was evidence of a similar gap in early child development between income groups, and the gap had widened since age 3. The same broad association between early years development and disadvantage was found by Melhuish and Gardiner (2021) in the SEED cohort a decade later.

The MCS study (Kelly and others, 2011) concluded that the home environment may provide a means by which this gap could be reduced between income groups in early years development. However, within the Five to Twelve cohort at age 5 and 6, a critical period in their development of language fluency, social-emotional skills and basic cognitive foundations, the home environment remained less optimal for disadvantaged children (those eligible for FSM and those with SEN). Parents were less well-educated, less likely to be working and more likely to have mental health conditions. Children were more likely to live in homes scoring low on the home learning environment index and had fewer books in the household. They were more likely to be in a disorganised household and less likely to have parents engaging with their school. Children eligible for FSM were more likely to have an Own Household Parent (OHP), more likely to never have lived with that OHP and, where they had lived with them at some point, this was more likely to have been prior to starting school.

At school, the negative association with disadvantage was also identified. Even at this early point, teachers' expectations for a child reaching expected academic standards were lower on average for disadvantaged children in terms of FSM eligibility. Children with SEN experienced even greater disparities. Children eligible for FSM and children with SEN were more likely to both experience bullying but also be perpetrators of bullying behaviour. Children with SEN also had less close relationships with teachers.

The intersection of poverty and SEN will be an important focus for Five to Twelve as it progresses. So too will be the specific mechanisms by which this disadvantage impacts children. For instance, how poverty might exacerbate the effects of SEN by limiting access to resources, advocacy, and early intervention services, or lead to greater marginalisation and stigmatisation at school (Chatzitheochari and Butler-Rees, 2023).

It is important to recognise that the impacts of disadvantage are not static but continue to operate over time. The concept of 'cumulative disadvantage' (Goldthorpe, 2007) is useful here in describing how initial inequalities can be self-reinforcing and can widen (Feinstein, 2003). At any given point, disadvantages across multiple factors, including those described in this report, increase the chances of additional negative outcomes which in turn increases the burden of disadvantage. The differences between children that this study has observed as they start their primary education is evidence of the disadvantages already accumulated to this early point in their lives. However, each stage of education plays a role in reinforcing or ameliorating their effects (Farquharson and others, 2022). The longitudinal nature of Five to Twelve will enable analysis of whether

and how this is reinforced, and what factors may contribute to children overcoming poverty and needs-based disadvantage to achieve good outcomes.

8.3 Next steps for Five to Twelve

8.3.1 A robust baseline

A key consideration for this report was to assess the robustness of the first wave of the data collection as a baseline for the envisaged study. This included an assessment of the sample achieved, the reliability of survey findings, and whether the range of measures collected met analytical aims.

The Five to Twelve study achieved a strong baseline. Using comprehensive population information, the sample design fully represented children attending state schools in England in the academic year 2023/2024. This included successfully oversampling children eligible for FSM to enable subgroup analysis. The first wave interviewed 8,632 families, achieving a good response rate. Non-response bias, particularly noticeable among FSM-eligible families, was corrected using robust weighting, and survey results closely matched available national administrative data. Quality was supported by validated measures, cognitive testing, and input from multiple respondents—parents, teachers, and children. Full details of the methodology can be found in the Technical Report (Wood and others, 2026).

This report provides a descriptive baseline of key measures collected in year 1 of Five to Twelve. It includes detailed findings relating to children’s characteristics at this stage, their experiences in school, their parents and home environment. In doing so it identifies differences between socioeconomic and demographic groups that already exist. The study will build as it follows children through their primary school years, identifying changes in these areas. This will enable longitudinal analysis that will be able to uncover the factors that influence children’s educational attainment and their wellbeing.

8.3.2 Next steps for the study

Over the next five years, the study will continue to gather detailed and complementary data on children’s characteristics, behaviours, and experiences. The findings in this report show that disadvantage often coincides with challenging circumstances, underscoring the need for the study to monitor how multiple disadvantages accumulate. This will support analysis of the mechanisms that contribute to, or help mitigate, inequalities in educational and wellbeing outcomes.

The cohort will be contacted again as children progress through year 2 and will be invited to continue their involvement throughout their primary schooling. The study’s design will evolve over this period. In years 2 to 5, parents will take part in shorter online and

telephone interviews, and teachers will continue to be surveyed. Children themselves will be invited to participate in their own survey from year 3. In their final year of primary education, year 6, there will be a more substantial interview with children and a multimode approach including face-to-face interviews. Planning for these later waves is already informed by insights from year 1.

In addition to primary data collection, linkage to administrative records – particularly those related to educational attainment – will be a key component. Permissions for broader linkage have already been sought and will enable richer insights, including beyond the primary school years.

A critical next step is to identify and prioritise areas for further inquiry. The study must ensure that future waves collect the necessary data to examine group-level patterns and their relationship to key outcomes at the end of primary school. This includes reflecting on the implications of year 1 findings and aligning future data collection with an evolving policy landscape. Careful consideration of emerging questions and the data required to address them will be central to the success of Five to Twelve as a longitudinal resource.

9. Glossary

Attainment: The measure of a child's achievement in school which compares every child to a standardised expectation for their age level.

Co-resident parent (main informant): The parent or carer living with the cohort child. This parent completed the main questionnaire, either because they were available and willing, or because they were the parental figure best informed about the child's day-to-day life including school and friends.

Department for Education (DfE): The Department for Education is responsible for children's services and education, including early years, schools, higher and further education policy, apprenticeships and wider skills in England.

Economic activity: A measure of whether a person is an active participant in the labour market. People aged 16 years and older are considered economically active if they are: in employment, unemployed, looking for work and could start within two weeks or unemployed or waiting to start a job.

Education and Outcomes Pathway Studies (EOPS): This is a programme of observational studies that comprises four staggered longitudinal panel studies, each of which includes five waves of survey data collection and administrative data linkage that covers all the phases of life that are critical to the DfE policy from early years through to post-16 routes and early adult life.

Educational Health Care Plan (EHCP): An education, health and care plan (EHCP) is a legal document which describes a child or young person's special educational needs and the provision that must be put in place by the local authority and sometimes the local health authority (via the integrated care board) to meet them. An EHCP is for children who have a higher level of need than can be reasonably provided by a setting under SEN Support. Therefore, not all children with SEN are on an EHCP as some will receive SEN support instead.

Family composition: Family composition describes different family structures. In this study we distinguish between lone parent/carer families and coupled parent/carer families. Lone parent/carer families are families where child/children regularly live with only one of their parents or carers at a time. Couple parent/carer families are families where child/children regularly live with two parents or carers at a time.

Free School Meals (FSM): The provision of a healthy school meal to disadvantaged pupils as part of the Education Act 1996.

Home learning environment (HLE): Activities and interactions that offer learning opportunities to the child at home such as reading to the child, singing songs, painting or drawing and helping them to learn numbers, letters and words.

Inequalities: Disadvantages in outcomes between groups with certain characteristics, often reflecting different socio-economic factors such as family income, primary carer education, primary carer ethnicity and family type.

Key Stage One (KS1): Key Stage 1 is a phase of primary education for pupils aged 4 to 7 (reception up to year 3) in England and Wales.

Key Stage Two (KS2): Key Stage 2 is a phase of primary education for pupils aged 7 to 11 (year 3 to year 6) in England and Wales.

Lone parent household: A household in which a single adult carer is responsible for the children living with them. Children in a lone parent household may or may not have another parent living in their own household (see 'Own Household Parent' - OHP).

Main household: A child's main household is the address at which the child lives. In the case of children with two households, the main household is the address at which the child spends the larger share of their time, and/or the registered address for the child according to DfE records.

Main informant: (See co-resident parent) The main informant was the parent/carers who completed the face-to-face interview. This parent was either the best informed about the child's day-to-day life including school and friends, or available and willing to participate in the interview (or both). See section 1.1.3 for details of study participants.

National Pupil Database (NPD): The National Pupil Database is a database controlled by the Department for Education in England, based on multiple data collection points from children aged 2-21 in state-funded education and higher education.

Other co-resident parent: This person was defined as the other parent or parental figure who also lived in the main household. They may not have been available when the interviewer visited the address to book/conduct the interview, or have been less well informed about the child's day-to-day life.

Own household parent (OHP): A parent who does not live with the child in the main household.

Special Educational Needs (SEN): A learning difficulty or disability which calls for special educational provision to be made for the child or young person who has it.

Statistically significant: A research finding is statistically significant if the results in the data are unlikely to have occurred by chance alone. In social science, if the p-value

(probability value) is less than 5% it is generally accepted that the results are unlikely to be explained by chance.

Online questionnaire: One way of gathering data for this study was through a web-based survey that participants completed on their phone, tablet or computer. The survey included the sensitive questions for the main informant and the whole questionnaire for the other co-resident parent and the Own Household Parent (OHP).

Paper questionnaire: To gather data from teachers of the children taking part in this study we sent out a paper questionnaire, which teachers returned in the post.

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11. Appendices

11.1 Appendix A: Technical Summary – Survey Design

The Five to Twelve study is designed to track a representative cohort of children in state-funded education in England from year 1 (age 5 and 6) to year 6 (age 10 and 11) of primary school. It includes primary data collection from parents, teachers and children themselves over the period and consent was also obtained to link survey data to educational and health-related administrative records. A full technical report is published alongside this report (Wood and others, 2026).

In broad terms, Five to Twelve has achieved a robust baseline with survey estimates closely matching the available population data. The study benefited from the availability of comprehensive data from which to sample, as described in section 10.1.1, Sampling. This enabled an effective and efficient sampling design, balancing the practical requirements of data collection with the analytical objectives. This design included an oversampling of the disadvantaged FSM-eligible group to ensure sufficient cases for analysis.

The first wave of the survey successfully interviewed 8,632 families, providing ample opportunities for subgroup analysis. This relatively strong response was also reflected in the partner interview and the teacher survey. As seen in previous surveys, the FSM-eligible group were less likely to participate in the survey. However, the rich population data from the National Pupil Database (NPD) enabled sophisticated and efficient weighting that corrected bias across a range of key characteristics including FSM eligibility, special educational needs (SEN), ethnicity, region, school size, and English as the primary language. Inferences from the analysis to the population of year 1 children can be made with a high and quantifiable level of confidence. The study used established, validated measures where available and cognitively tested new material. It included multiple respondents for each cohort member to obtain a comprehensive perspective. These included co-resident parents including fathers, own household parents, teachers, and direct assessments of children themselves.

11.1.1 Sampling

The study is based on a random probability sample selected from the National Pupil Database (NPD), which is maintained by the Department for Education and provides individual records of the complete population of children in state-funded education in England. Owing to the time required for records from schools to become available via the NPD, records were selected from the 2022/2023 NPD Census and Alternative Provision data for children in the spring of their reception year, the school year prior to when the first wave of survey fieldwork took place. The NPD data provided for the survey included

the name and address of the child, their age, FSM eligibility, SEN status and ethnicity. It also included the school identifier and geodemographics. DfE provided the research team (NatCen) with a dataset of all the cases who would be in year 1 between September 2023 and August 2024.

The sample was clustered to achieve an efficient fieldwork operation for the in-home CAPI (computer aided personal interview) data collection. Primary Sampling Units (PSUs) were formed consisting of two neighbouring schools (or three where they were too small to form an assignment). A sample of 834 PSUs was selected, stratified by region, population density and density of FSM eligibility. Within each PSU a sample of 22 reception year children were selected. With the addition of a small number of children from Alternative Provision settings, this resulted in a selected sample of 18,354 children. The design of PSUs and the number of cases selected in each balanced the need for efficient fieldwork with minimising clustering. The focus on schools has analytical value, achieving around five interviewed cases at the first wave per school on average – sufficient for some school-level analyses while not overburdening teachers during the teacher survey element of the data collection. Controls were implemented to ensure a balance of pupils between the schools in the PSU, with between 7 and 13 selected per school.

To ensure analysable data post fieldwork the number of FSM-eligible children selected was boosted in the design. The level of FSM eligibility in the general population was 18%; the design boosted the issued sample to 40% FSM, with the expectation that level in the achieved sample would be somewhat lower given the lower response rates among FSM-eligible families in other studies. This boost was achieved through oversampling at both the selection of PSUs and individuals within PSUs.

Throughout fieldwork, the research team updated address information for selected pupils to enable tracing efforts.

Independent schools

It had been hoped that the sample would include a sample of children from independent schools, but this did not prove possible within the parameters of this study. The challenge for a survey of this sector, particularly one focused on children's homes, is the lack of lists of children from which to sample. Following qualitative work with a selection of schools it was concluded that a parental opt-in would be required to obtain contact information to be used in the fieldwork operation. A feasibility study was conducted that involved the selection and approach to a sample of schools who were approached to participate, but participation levels at this stage and at the parental opt-in stage were too low for this to be taken forward.

11.1.2 Fieldwork design

Year 1 of the Five to Twelve study involved a face-to-face interview with the co-resident parent or carer of the child. Where there were two parents or carers, the interviewer was instructed to ask for the parent who knew most about their child's school life, although in many cases either parent would be able to answer the questions. The selected parent or carer who conducted the CAPI interview is referred to as the 'main informant' throughout this report.

In addition, we invited the other co-resident parent in the household and the child's other parent in their own household (the Own Household Parent, or OHP), if applicable, to take part in a short online questionnaire.

Main fieldwork took place between October 2023 and August 2024, with sample issued in tranches during this period.

Three hundred and thirty-three interviewers worked on the Five to Twelve study. Interviewers were trained by the research team on the survey processes, conducting the interview, how to carry out the cognitive exercises and how to deal with problems.

Prior to fieldwork beginning, all households selected were sent a letter with information about the study, detailing that they had been selected and that an interviewer would be visiting their address. This also included a £10 gift card as an unconditional incentive. DfE sent an email to all schools where a pupil had been selected to inform the school of the study so they could confirm the study was credible to parents selected to take part.

Interviewers conducted the interview with one co-resident parent or carer and sought to enable the other co-resident parent to participate in their own interview online. The interview also identified OHPs, if applicable, and sought contact information for them with which to make contact. Permission was also sought to contact the child's teacher to complete a short survey, and the teacher's name was obtained.

In some cases, the selected household had moved or couldn't be contacted. In these cases, it may have been that the NPD hadn't received and been updated with a new address yet, or potentially the child was living permanently with another family member or person. Interviewers attempted to find information or forwarding contact details from neighbours or the new people at the address. Interviewers were given letters to post to the new contact details, if obtained. If the household had moved out the area, and the interviewer had identified the new address, the household was reallocated to another interviewer in the local area. Where the interviewer could not find forwarding information, the research team collated all untraced households at the end of fieldwork. Using the updated Autumn Census 2023/2024, letters were sent out to any households where a new address was listed on the NPD. These cases were allocated to a new interviewer.

The other co-resident parent was passed the link to the online questionnaire through the co-resident main informant, or directly by the interviewer if they were present at the time of interview. Both the other co-resident parent and the OHP were sent reminders to encourage participation.

The main informant was asked to provide permission for the research team to contact their child's teacher. In most cases they consented and gave the interviewer the class teacher's name. Teachers identified by main informants were posted packs of short paper questionnaires relating to participating named children in their class. Where the teacher's name had not been provided, paper questionnaires were sent to the headteacher for them to distribute to the relevant teachers. This approach was supported by reminder letters, an email to the headteacher, and a telephone reminder approach to the school. While most questionnaires were sent to teachers during the 2023/24 school year, a small proportion of questionnaires were sent at the start of 2024/2025 due to main fieldwork continuing during the summer of 2024.

11.1.3 Questionnaire

Questionnaire development was supported by a Technical Advisory Group and Policy Advisory Committee at DfE, in addition to the Five to Twelve collaborating organisations and academic partners. To ensure validity and reliability of new and adapted questions, cognitive testing was conducted during the development phase. Piloting was also conducted prior to the main launch.

Mode adaptations (for instance to enable a move from CAPI to online self-completion) were implemented with expert review for questions collected across both the main informant, other co-resident parent and OHP. Some mode impact will remain and many of the questions within the interview were sensitive and presented the potential for social desirability bias. However, the most sensitive questions and those more prone to interviewer effects within the CAPI instrument were contained within the self-completion component of the main informant questionnaire.

The topics included for each parent type are outlined below and follow the order of the main informant interview:

Table 34: Questionnaire content

Questionnaire content	Main informant (co-resident parent)	Other co- resident parent (all self- completion)	Own household parent (all self- completion)
Household composition and enrolment in school	Yes		
Early childhood: birth weight	Yes		
Child at school: tutoring	Yes		
Parental engagement with schooling	Yes	Yes	Yes
Childs longstanding health conditions	Yes		
SEN status	Yes		
Child's health behaviours	Yes		
Parent's health	Yes		Yes
Home learning environment and books	Yes		
Confusions, hubbub and order	Yes		
Activities with child	Yes	Yes	Yes
Digital environment, including screen time	Yes		
Strengths and difficulties questionnaire (SDQ)	Yes		
Parenting style and dimensions questionnaire (PSDQ)	Yes	Yes	Yes
Relationship with partner (if applicable)	Yes	Yes	
Relationship with cohort child and co-resident parent			Yes
Intimate partner violence	Yes		
Parental mental health	Yes		Yes
Financial security	Yes		
Smoking and drinking	Yes	Yes	Yes
Relationship with OHP (if applicable)	Yes		
Adverse events	Yes		
Socio-demographics	Yes	Yes	Yes
OHP household composition			Yes
Data linkage	Yes	Yes	Yes
Permission to contact teacher	Yes		
Contact details	Yes	Yes	Yes

In addition, the cohort child was invited to take part in three cognitive exercises (see section 7 for more information).

11.1.4 Response to the survey

The table below provides the top-level response to each element of the survey (unweighted). See the main technical report (Wood and others, 2026) for full response information.

Table 35: Response by questionnaire component

Survey element participation	Issued / eligible	Achieved interviews	Response rate % (of issued, unweighted)
Main informant	18,354	8,632	47
Other co-resident parent	6,233	3,622	58
Own household parent (OHP) (issued where details were provided)	1,927 eligible OHPs, of whom 940 could be issued for fieldwork	327	35
Cognitive assessment: Naming vocabulary	8,632	8,254	96
Cognitive assessment: Picture similarities	8,632	8,147	94
Cognitive assessment: Recall of digits backward	8,632	7,669	89
Teacher survey	8,240	4,860	59

As outlined in the table above, 18,354 cases were issued to interviewers. A total of 8,632 interviews were conducted with the main informant of the selected children in their main homes, representing a 47% response rate (unweighted). Cognitive assessments were conducted with children in 96% of these cases.

In addition, 58% of other co-resident parents (i.e. the main informant's partner or co-parent) completed the online interview.

Teachers were approached to complete a short survey with parental consent, resulting in teacher assessments being available for 59% of the cohort members.

In total, 8,240 teachers were invited to provide information about a pupil or pupils they teach. Of these, 4,860 (59%) responded.

For OHPs, 1,941 OHPs were recorded by main informants (21% of children had an OHP). However, contact details were obtained via the main informant where they were willing to provide them / where they had them. A total of 944 could be issued for fieldwork

and 327 responses were received. Of these, 275 were included in the analysis (see next section on weighting).

11.1.5 Weighting and data

Data from the main interview, parent online questionnaires and teacher survey were brought together into one dataset at the child level. In this dataset, each observation represents data in relation to each cohort child.

A 'pupil weight' was developed to enable analysis of children in year 1 in England in state-funded schools. This combined a design weight (which accounted for the clustering and sample selection) and a non-response weight. The final non-response model included:

- **Pupil variables:** whether FSM-eligible, gender, region, ethnicity, whether main language in English, whether a SEN pupil.
- **School variables:** pupil number deciles (both school and PSU versions), deciles of FSM pupil eligibility, income deprivation affecting children (IDAC) deciles.

For the subset of 6,233 out of 8,632 cases there was a co-resident partner, a second weight was estimated with regression to account for non-response among those co-resident partners. A total of 3,622 productive Parent B interviews were obtained where there was a co-resident partner. A range of information from the survey was used in the model for this weight.

This weight was combined with the pupil weight and used with a dataset at the parent level which combined the CAPI and online interview data. This was to enable analysis of, for instance, mothers and fathers.

A third weight was developed for use with the teacher survey data about the child, which had non-response in addition to that for the main survey (in relation to both main informant agreement that the study could contact the teacher about their child, and non-response from the teacher themselves).

Finally, a fourth weight enabled inferences for a subset of the OHP population. While OHPs were invited to participate in the survey if they had been in touch with the child in the last 12 months, the weight that was developed focused on the subset who were reported to be in touch with the child at least fortnightly, due to the very low response rates for the group who saw their child less often than this. This weight applied to 275 of the 327 responses (84% of cases).

11.1.6 Note on the cognitive assessment data

Note that the mean for all three tests is above that for the standardisation sample used to develop the scoring approach (the mean for all BAS3 tests was designed to be 50). This was also observed in the Millennium Cohort Study (at age 5 in 2006) based on BAS2 for Naming Vocabulary and Picture Similarities. There were differences in the sampling approaches between Five to Twelve (which used a random probability design achieving a relatively high response rate) and the standardisation sample (which used an opt-in process, with controls in line with 2001 census figures). The tests were administered to the standardisation sample in 2010, so to an earlier cohort. The training provided to administrators / interviewers will also be a potential source of the difference.

11.2 Appendix B: SEN Type definitions (from NPD)

The SEN types used in this report have been determined by grouping together SEN Type categories provided in the NPD. The idea behind this categorisation was to combine the least common NPD SEN types with others such that cell sizes would be sufficient to allow analysis and similar SEN types/experiences would be grouped together as far as possible. This specific classification has been used across other studies and so was also used for Five to Twelve reporting to enable comparability across other longitudinal studies.

Table 36: SEN type definitions, according to NPD

Report classification	SEN Type classification in NPD
Autism	Autistic Spectrum Disorder (ASD)
Cognition and Learning	Moderate Learning Difficulties (MLD); Profound Multiple Learning Difficulties (PMLD); Severe Learning Difficulties (SLD); and Specific Learning Difficulties (SPLD)
Physical and Sensory	Visual impairment (VI); Hearing Impairment (HI); Multi-sensory Impairment (MSI); and Physical Disability (PD)
Social Emotional Mental Health	Social Emotional Mental Health (SEMH)
Communication and Interaction	Speech Language and Communication Need (SLCN)
Other	Remaining categories who did not fit into any of the other categories
No information	No information about primary SEN type held on the NPD

11.3 Appendix C: Child ethnicity

For analytical purposes, this report uses collapsed categories for the child's ethnicity. Table 36 shows the proportion of each expanded ethnicity category.

Table 37: Child cohort's ethnicity, expanded categories

Ethnicity	%
White – English / Welsh / Scottish / Northern Irish / British	62
White – Irish	<1
White – Gypsy or Irish Traveller	<1
White – Roma	<1
Any other white background	7
Mixed/Multiple ethnic groups – White and Black Caribbean	2
Mixed/Multiple ethnic groups – White and Black African	1
Mixed/Multiple ethnic groups – White and Asian	2
Any other mixed/multiple ethnic background	1
Asian/Asian British – Indian	6
Asian/Asian British – Pakistani	5
Asian/Asian British – Bangladeshi	1
Asian/Asian British – Chinese	1
Any other Asian background	2
Black/African/Caribbean/Black British – African	5
Black/African/Caribbean/Black British – Caribbean	1
Any other black/African/Caribbean/ background	<1
Arab	1
Other	2
<i>Unweighted Base</i>	<i>8,583</i>
<i>Weighted Base</i>	<i>8,587</i>

11.4 Appendix D: Co-resident maternal and paternal qualifications

For analysis purposes, the report uses an equivalised educational qualification metric representing the highest level of education achieved. Table 37 summarises how each qualification level has been matched onto each equivalised educational level. This is based on the categorisation set out by the National Qualifications Framework (NQF) also used in the Longitudinal Study of Young People in England: cohort 2, wave 1 (Department for Education, 2015b)

Qualification of the co-resident parents are asked of the main informant only. While qualification information is collected about OHPs, the measure is simplified and does not collect detail as listed in the table below.

Table 38: Qualification and equivalised qualification level

Qualification: academic	Level
Academic	
University Higher Degree – Doctorate (PhD)	5
University Higher Degree – Masters Degree (MA, MSc, MPhil)	5
Degree (e.g. BA, BSc)	5
Foundation degree	4
Other degree level qualifications such as graduate membership of professional institutes	5
PGCE (Post-Graduate Certificate of Education) or equivalent	5
Other teaching qualification	5
Access to Higher Education (HE) Diploma / Scottish Wider Access Programme (SWAP), Accreditation of Prior Learning (APL) / Accreditation of Prior Experiential Learning (APEL)	3
A Level / A2 Level (GCE Advanced Level)	3
AS Level (not completed A Level)	3
Certificate of Sixth Year Studies	3
Advanced Highers	3
Highers	3
GCSE / iGCSE	2
Credit Standard Grade / National 5 / Intermediate 2	2
General Standard Grade / National 4 / Intermediate 1	1
Foundation Standard Grade / National 3 / Access	1
Other academic qualification	1
None of these	0

Table 39 continued: Qualification and equivalised qualification level

Qualification: vocational	Level
Professional qualifications at degree level e.g. graduate member of professional institute, chartered accountant or surveyor	5
Nursing or other medical qualifications (below degree level)	4
NVQ or SVQ - Level 4 or 5	4
NVQ or SVQ - Level 3	3
NVQ or SVQ - Level 2	2
NVQ or SVQ - Level 1	1
GNVQ – Advanced	3
GNVQ – Intermediate	2
GNVQ - Level 3	3
GNVQ - Level 2	2
GNVQ - Foundation	1
City & Guilds - Advanced craft, Part III	3
City & Guilds - Craft, Part II	2
City & Guilds - Craft, Part I / d.	1
City & Guilds - Level 3	3
City & Guilds - Level 2	2
City & Guilds - Level 1	1
RSA - Advanced Diploma	3
RSA - Higher Diploma	4
RSA - RSA Diploma	2
RSA - RSA Stage I, II, III	1
BTEC - Higher Level	4
BTEC - National	3
BTEC - First	2
SCOTVEC - National Certificate	3
SCOTVEC - First or general diploma	2
SCOTVEC - General diploma / d.	1
SCOTVEC - Modules	1
HND or HNC	4
OND or ONCM	3
Junior certificate	1
Other vocational qualifications (including some overseas)	1
None of these qualifications	0

11.5 Appendix E: Comparison of core questions asked in relation to OHP

Core questions about the OHP were asked of both the main informant and the OHP themselves, given the expectation of low levels of OHP response.

Table 38 provides a summary of the questions asked of a) the main informant and b) the OHP themselves in relation to the OHP and their contact and relationship with the child. Please note, that Table 38 does not provide an exhaustive list of the questions asked in the OHP questionnaire. The full questionnaire can be found as an appendix to the Five to Twelve technical report (Wood and others, 2026).

Table 40: Questionnaire content about contact with child for main informant and OHP

a) Questions for main informant on relationship with OHP	b) Questions for OHP about relationship with child
In the last twelve months, has <i>(Child)</i> had any contact with their parent who lives somewhere else? That includes seeing them face-to-face, speaking to them on the phone or another device, including video calls, emails, messaging, gaming, social media, cards or letters – any kind of contact.	Not asked
During school term time, how often does <i>(Child)</i> usually see their other parent face to face? Please do not include time when <i>the Child</i> sees them on Zoom, Facetime or other video calls.	During school term time, how often do you usually see <i>(Child)</i> face to face? Please do not include time when you see them on Zoom, Facetime or other video calls.
During school term time, does <i>(Child)</i> stay overnight with <i>their</i> other parent at another address – for example at their place or somewhere else they stay together?	During school term time, does <i>(Child)</i> stay overnight with you at your place or somewhere else you stay together?
How often does <i>(Child)</i> usually stay overnight with them at another address – for example at their place – during term time?	How often does <i>(Child)</i> usually stay overnight with you at your place or somewhere else you stay together – during term-time?
Now thinking about school holidays, does <i>(Child)</i> ever stay overnight with their other parent? This could be at the place when <i>the child's</i> other parent usually lives or somewhere else, including if they go away together on holiday or to visit relatives.	Now thinking about school holidays, does <i>(Child)</i> ever stay overnight with you? This could be at your place or somewhere else, including if you go away together on holiday or to visit relatives.
How much of the school holidays does <i>(Child)</i> usually spend staying overnight with <i>their</i> other parent?	How much of the school holidays does <i>(Child)</i> usually spend staying overnight with you?

Table 41 continued: Questionnaire content about contact with child for main informant and OHP

a) Questions for main informant on relationship with OHP	b) Questions for OHP about relationship with child
Has <i>(Child)</i> 's other parent ever lived at the same address as <i>(Child)</i> ?	Not asked
How long ago did they stop living at the same address as <i>(Child)</i> ?	Not asked
In the last twelve months, have you personally had any contact with <i>(Child)</i> 's other parent who lives somewhere else? That includes seeing them face-to-face, speaking to them on the phone, emails, messages and so on?	In the last twelve months, have you had any contact with <i>(Child)</i> 's other parent? That includes seeing them face-to-face, speaking to them on the phone, emails, messages and so on?
How would you describe your own relationship with <i>(Child)</i> 's other parent these days?	How would you describe your own relationship with <i>(Child)</i> 's other parent these days?
How often do you and <i>(Child)</i> 's other parent disagree over issues relating to bringing up <i>(Child)</i> ?	How often do you and <i>(Child)</i> 's other parent disagree over issues relating to bringing up <i>(Child)</i> ?
How often are you able to resolve these disagreements without arguing?	How often are you able to resolve these disagreements without arguing?
When you make major decisions about <i>(Child)</i> , such as relating to education and health, how often do you ask <i>(Child)</i> 's other parent for their views?	When <i>(Child)</i> 's other parent makes major decisions about <i>(Child)</i> , such as relating to education and health, how often are you asked for your views?
In the last six months, has <i>(Child)</i> 's other parent contributed any money to <i>(Child)</i> 's maintenance? This could include money transfers to you, paying for <i>(Child)</i> 's expenses or payments made via the Child Maintenance Service.	In the last six months, have you contributed any money to <i>(Child)</i> 's maintenance? This could include money transfers to <i>(Child)</i> 's other parent, paying for child's expenses or payments made via the Child Maintenance Service.
Does <i>(Child)</i> 's other parent ever buy toys, clothes or equipment for <i>(Child)</i> apart from on special occasions like birthdays?	Do you ever buy toys, clothes or equipment for <i>(Child)</i> apart from on special occasions like birthdays?
How often does <i>(Child)</i> 's other parent buy toys, clothes or equipment for <i>(Child)</i> apart from on special occasions like birthdays?	How often do you buy toys, clothes or equipment for <i>(Child)</i> apart from on special occasions like birthdays?

11.6 Appendix F: Missing Data and Imputation in Recall of Digits Backwards

11.6.1 Description of data problem

The findings in this report relating to the Recall of Digits Backwards (RoDB) cognitive assessment used data that included interpolation of missing data. Problems were identified with the implementation of the RoDB assessment involving errors in the programming and interpretation of the BAS3 test rules (the test is usually administered on paper, but the relatively complex rules were programmed into the CAPI instrument for Five to Twelve). Interpolation was conducted for items that should have been asked of some children but were not. This annex briefly describes the problems in the data, the interpolation approach and the outcome (for more detail see the main technical report (Wood and others, 2026 and Bennett, 2025)).

The RoDB test proceeds from a set of 2-digit items to be recalled, up to a set of 7-digit items if the child provides minimum numbers of correct answers in previous sets. The test aims to establish a 'basal' category, defined as the highest set where 4 or 5 items out of 5 in the set are answered correctly. It also aims to establish a 'ceiling' set which is the highest set where they get no more than one item correct. All items between the basal and ceiling should be asked by the end of the test's administration (the child is skipped back and forth between the sets to reach this point).

At the end of fieldwork, tests with 8,100 children had been completed. Of these, 79% had both a basal and ceiling established, 16% had a basal but not a ceiling established, 5% were missing both the basal and ceiling. A total of 52% of cases had no missing items, with 48% having missing items. Most of the cases with missing items had 6 or fewer missing items.

Analysis was undertaken to understand if the missing data was impacting a random sample of participants, or if there were systematic patterns in the nature of the missing data (only impacting Asian females, for example). This ascertained that demographic differences between participants with missing data and those with complete data were statistically significant (given a relatively large sample size) but relatively small on key variables of age, gender, ethnicity, FSM eligibility, SEN status, and English as an Additional Language. It is therefore possible to conclude that while the data was missing due to the pattern of performance of participants (i.e. skipping back in the task to establish the basal level), systematic differences between the participants themselves were minimal.

11.6.2 Interpolation method

For each item consideration set, a Latent Class Analysis was undertaken to model the probability of passing each item, using an ordinal logistic model (equivalent to a logistic regression model in the binary case) using latent class membership as an independent variable. For example, for a basal of two and a ceiling of four, the dependent variables are the consideration set of test items 6 through to 20. The goal is to predict the odds of passing vs not passing each item, conditional on latent class membership.

Latent Class Analysis uses the Expectation-Maximisation (EM) algorithm to simultaneously estimate latent class membership probabilities for each person and the parameters of the logistic regression model for the items, conditional on latent class membership. It handles missing observations for test items directly within its estimation procedure, assigning cases to their most likely Latent Classes based on observed data available, even if this observed data is partial, due to some items missing data. This gives Latent Class Analysis several advantages over other methods of interpolating missing data:

- the Latent Classes allow heterogeneity in the models linking Latent Class membership with the test scores for underlying items. We do not need to assume that for any Basal-Ceiling pair a single aggregate-level model applies to all cases.
- there are alternative ways of specifying the latent class structure (e.g. using permutations of binary latent class factors, known as DFactors) which allow us to incorporate many classes into a model whilst minimising model complexity and number of parameters needing estimation, making the model more likely to generalise and fit well to missing data.
- Latent Class Analysis is very robust to missing data and adept at recognising a latent classes pattern of response even when missing items are extensive. The probabilities of passing an item can be directly estimated for individual cases based on their posterior Latent Class membership probabilities, which are one of the principal outputs from LatentGOLD.

The LatentGOLD ® package, used for the Latent Class Analysis, provides an output of the predicted probability of a pass for each of an individual's missing item observation. Using these modelled probabilities, for each missing item at individual level, an interpolation value was simulated using proprietary code written in the R statistical programming language. For each missing item a random number between 0 and 1 was generated under the uniform distribution and the item was assigned either a fail '0' or pass '1' for that individual, conditional on whether the simulated random number falls into the (cumulative) fail or pass probability zone. So for example, if for case i and test item j, the Latent Class algorithm predicted an 0.84 (84%) probability of a fail and a 0.16 (16%) probability of a pass, if the random (uniformly distributed) simulated number was between

0 and 0.84, we assign a fail '0' and if it is greater 0.84 and less than or equal to 1 we assign a pass '1'.

Separate and different approaches were taken for the three groups identified above: basal and ceiling established (missing items were less extensive in this group), basal only (more numerous and concentrated missing items) and neither (extensive missing items). The nature of missing items was considerably different between these groups.

11.6.3 Outcome of the interpolation

Following interpolation, 95% of cases (n=7,669) could be included in the descriptive analysis in this report. Missing items were too extensive in the group where neither a basal nor a ceiling was established during fieldwork and these were dropped.

We can place slightly higher trust in the interpolations for the group for whom we could allocate an initial basal and ceiling from observed data than for the group with an initial basal but no ceiling. However, a robust and objective process was followed for modelling and interpolating missing pass/fail item scores both groups which has enabled the use of sophisticated interpolation methods whilst preserving the rules of the test.

11.7 Appendix G: Child SDQ measures and break down by SEN type

The socio-emotional difficulties questionnaire (Goodman and Goodman, 2009) includes 25 items answered by the main informant about the cohort child. Each statement is prefixed with the phrase ‘In the last six months, how true...’. Table 39 provides the full detail of the items, as well as listing which scale each item maps onto. This information is provided here to complement discussion of the five scales in the main body of the report (section 2.3.6).

Table 42: Socio-emotional Difficulties Questionnaire (SDQ) items

	Scale	Total: Not true (%)	Total: Some- what (%)	Total: Cer- tainly (%)	<i>Unweighted base</i>	<i>Weighted base</i>
Considerate of other people’s feelings	Pro-s	4	28	67	6943	7092
Restless, overactive, cannot stay still for long	Hyp	42	37	21	6949	7098
Often complains of headaches, stomach-aches or sickness	Emo	73	21	6	6947	7096
Shares readily with other children (treats, toys, pencils etc)	Pro-s	5	35	61	6949	7098
Often has temper tantrums or hot tempers	Con	47	37	16	6947	7097
Rather solitary, tends to play alone	Peer	61	32	8	6947	7096
Generally obedient, usually does what adults request	Con	7	45	48	6947	7097
Many worries, often seems worried	Emo	68	26	6	6945	7096
Helpful if someone is hurt, upset or feeling ill	Pro-s	4	20	76	6944	7091
Constantly fidgeting or squirming	Hyp	54	28	18	6937	7084
Has at least one good friend	Peer	4	10	86	6948	7097
Often fights with other children or bullies them	Con	92	7	2	6946	7096
Often unhappy, down-hearted or tearful	Emo	85	13	2	6944	7094
Generally liked by other children	Peer	11	13	85	6940	7090
Easily distracted, concentration wanders	Hyp	38	40	21	6944	7095
Nervous or clingy in new situations, easily loses confidence	Emo	44	40	16	6944	7095

Table 43 continued: Socio-emotional Difficulties Questionnaire (SDQ) items

	Scale	Total: Not true (%)	Total: Some- what (%)	Total: Cer- tainly (%)	<i>Unweighted base</i>	<i>Weighted base</i>
Kind to younger children	Pro-s	2	13	85	6945	7098
Often lies or cheats	Con	77	20	3	6945	7096
Picked on or bullied by other children	Peer	83	15	2	6932	7083
Often volunteers to help others (parents, teachers, other children)	Pro-s	5	33	62	6945	7094
Thinks things out before acting	Hyp	17	61	21	6934	7086
Steals from home, school or elsewhere	Con	94	5	1	6938	7089
Gets on better with adults than with other children	Peer	63	29	8	6932	7083
Many fears, easily scared	Emo	60	31	8	6941	7093
Sees tasks through to the end, good attention span	Hyp	17	49	34	6938	7087

Table 44: Socio-emotional Difficulties Questionnaire (SDQ) items, by FSM eligibility

	FSM eli- gible: Not true (%)	FSM eli- gible: Some- what (%)	FSM eli- gible: Cer- tainly (%)	<i>Un- weighted Base</i>	<i>Weighted Base</i>	Not FSM eligible: Not true (%)	Not FSM eligible: Some- what (%)	Not FSM eligible: Cer- tainly (%)	<i>Un- weighted Base</i>	<i>Weighted Base</i>
Considerate of other people's feelings	8	35	57	2041	1122	3	27	69	4902	5970
Restless, overactive, cannot stay still for long	28	34	38	2043	1122	44	38	18	4906	5974
Often complains of headaches, stom- ach-aches or sickness	61	28	11	2042	1123	75	20	5	4905	5974
Shares readily with other children (treats, toys, pencils etc)	8	39	53	2043	1123	4	34	62	4906	5975
Often has temper tantrums or hot tem- pers	33	37	30	2041	1122	49	37	14	4906	5975

Table 45 continued: Socio-emotional Difficulties Questionnaire (SDQ) items, by FSM eligibility

	FSM eli- gible: Not true (%)	FSM eli- gible: Some- what (%)	FSM eli- gible: Cer- tainly (%)	<i>Un- weighted Base</i>	<i>Weighted Base</i>	Not FSM eligible: Not true (%)	Not FSM eligible: Some- what (%)	Not FSM eligible: Cer- tainly (%)	<i>Un- weighted Base</i>	<i>Weighted Base</i>
Rather solitary, tends to play alone	46	39	15	2042	1122	63	30	6	4905	5973
Generally obedient, usually does what adults request	12	51	37	2042	1123	6	44	50	4905	5975
Many worries, often seems worried	61	30	8	2039	1121	69	25	6	4906	5975
Helpful if someone is hurt, upset or feeling ill	6	23	71	2041	1122	4	19	7711	4903	5969
Constantly fidgeting or squirming	28	29	43			58	28	15		
Has at least one good friend	6	14	79	2042	1123	4	9	87	4906	5974
Often fights with other children or bullies them	82	14	5	2043	1123	94	5	1	4903	5973
Often unhappy, down-hearted or tearful	76	20	4	2041	1122	87	11	2	4903	5972
Generally liked by other children	2	17	80	2041	1123	1	12	86	4899	5968
Easily distracted, concentration wanders	25	37	38	2040	1122	41	41	18	4904	5972
Nervous or clingy in new situations, easily loses confidence	36	29	25	2040	1122	46	40	15	4904	5974
Kind to younger children	3	18	79	2039	1121	2	13	86	4906	5975
Often lies or cheats	68	26	7	2041	1122	79	19	2	4904	5973
Picked on or bullied by other children	73	22	5	2035	1119	85	13	2	4897	5964
Often volunteers to help others (parents, teachers, other children)	8	32	60	2042	1123	5	33	62	4903	5970
Thinks things out before acting	28	55	18	2036	1120	15	63	22	4898	5966
Steals from home, school or elsewhere	89	8	2	2039	1121	95	4	1	4899	5967
Gets on better with adults than with other children	49	37	15	2037	1120	65	27	7	4895	5962
Many fears, easily scared	53	35	12	2039	1121	62	31	7	2037	1120
Sees tasks through to the end, good attention span	29	47	25	2039	1122	14	50	36	4899	5965

Table 46: Socio-emotional Difficulties Questionnaire (SDQ) items, by SEN status

	SEN: Not true (%)	SEN: Some- what (%)	SEN: Certainly (%)	<i>Un- weighted Base</i>	<i>Weighted Base</i>	No SEN: Not true (%)	No SEN: Some- what (%)	No SEN: Certainly (%)	<i>Un- weighted Base</i>	<i>Weighted Base</i>
Considerate of other people's feelings	13	47	40	925	779	3	26	71	6018	6312
Restless, overactive, cannot stay still for long	20	31	49	927	781	44	38	18	6022	6317
Often complains of headaches, stomach-aches or sickness	68	25	7	925	778	73	21	6	6022	6317
Shares readily with other children (treats, toys, pencils etc)	18	50	32	928	782	3	33	64	6021	6317
Often has temper tantrums or hot tempers	27	38	35	927	780	49	37	14	6020	6318
Rather solitary, tends to play alone	30	42	29	927	780	64	31	5	6020	6316
Generally obedient, usually does what adults request	16	56	27	927	780	5	44	51	6020	6316
Many worries, often seems worried	58	31	11	925	780	69	25	5	6020	6317
Helpful if someone is hurt, upset or feeling ill	16	36	49	926	781	3	18	80	6018	6312
Constantly fidgeting or squirming	26	38	36	925	780	58	28	15	6012	6304
Has at least one good friend	17	23	60	925	780	2	8	89	6023	6318
Often fights with other children or bullies them	81	16	4	924	778	93	5	1	6022	6318
Often unhappy, down-hearted or tearful	76	21	3	926	780	86	12	2	6018	6313
Generally liked by other children	4	29	68	922	776	1	11	88	6018	6313
Easily distracted, concentration wanders	14	33	53	926	780	41	41	17	6018	6314
Nervous or clingy in new situations, easily loses confidence	31	38	32	924	780	46	40	14	6020	6316
Kind to younger children	7	30	63	922	777	1	11	87	6023	6319
Often lies or cheats	77	20	4	923	777	77	20	3	6022	6318
Picked on or bullied by other children	71	23	5	919	773	84	14	2	6013	6309

Table 47 continued: Socio-emotional Difficulties Questionnaire (SDQ) items, by SEN status

	SEN: Not true (%)	SEN: Some- what (%)	SEN: Certainly (%)	<i>Un- weighted Base</i>	<i>Weighted Base</i>	No SEN: Not true (%)	No SEN: Some- what (%)	No SEN: Certainly (%)	<i>Un- weighted Base</i>	<i>Weighted Base</i>
Often volunteers to help others (par- ents, teachers, other children)	22	40	38	923	777	3	32	65	6022	6318
Thinks things out before acting	44	43	13	923	778	14	64	22	6011	6307
Steals from home, school or elsewhere	91	7	2	923	778	95	4	1	6015	6312
Gets on better with adults than with other children	35	40	25	925	780	66	27	6	6007	6303
Many fears, easily scared	47	37	16	924	779	62	31	7	6017	6313
Sees tasks through to the end, good attention span	48	40	12	927	781	13	50	37	6011	6305

11.8 Appendix H: Modified pupil behaviour questionnaire scale and bands

The study used a modified version of the Pupil Behaviour Questionnaire (Allwood and others, 2018) to enable the answer options to remain consistent with the rest of the measures used in the teacher questionnaire. Teachers were asked to respond to the following six items, using a five-point answer scale ranging from 'Never' (1) to 'Always' (5):

'How often is this child...

- a) Talking out of turn, e.g. by making remarks, calling out, chattering
- b) Interrupting other pupils (e.g. by distracting them from work)
- c) Making unnecessary (non-verbal) noise (e.g. by scraping chairs, banging objects)
- d) Verbally abusive towards other pupils (e.g. offensive or insulting remarks)
- e) Physically aggressive towards other pupils (e.g. by pushing, punching, striking)
- f) Making cheeky or rude remarks to the teacher

As with the validated Pupil Behaviour Questionnaire tool, total scores were calculated by summing the values (which had been recoded as 0-4). If any of the scores were missing then the case was assigned a missing value. The variable was then derived into four bands: 0 Never; 1 Low; 2 Medium; 3 High. Table 42 illustrates the proportion of children in each of the bands. High scores indicate high levels of disruptive behaviour, while low scores indicate the opposite.

Table 48: Proportion of children in each modified pupil behaviour questionnaire band

Modified pupil behaviour questionnaire score band	Percent of children
0 None	26%
1 Low	55%
2 Medium	16%
3 High	3%

11.9 Appendix I: Pupil-teacher relationship scale and bands

The study asked teachers to assess their relationship with each child using the 'closeness' subscale of the Student-Teacher Relationship Scale (Pianta and Nimetz, 1991). This subscale measures the degree to which a teacher-pupil relationship is characterised by affection, warmth and open communication. High closeness scores indicate that the relationship is warm and that the teacher believes they are a source of support to the child. Teachers were asked to respond to the following five items, using a five-point scale from 'Definitely does not apply' (1) to 'Definitely applies' (5):

- a) If upset, this child will seek comfort from me
- b) This child values his/her relationship with me
- c) When I praise this child, he/she beams with pride
- d) This child spontaneously shares information about him/herself with me
- e) This child openly shares his/her feelings and experiences with me

Total scores were calculated by summing the values. If any of the scores were missing then the scale score was missing. The variable was then derived into three bands: 1 Low; 2 Medium; 3 High. Table 43 illustrates the proportion of children in each of the bands. High closeness scores indicate that the relationship is warm and that the teacher believes they are a source of support to the child, with low scores indicating the opposite.

Table 49: Proportion of children in each Student-Teacher Closeness Scale band

Pupil-teacher relationship scale band	Percentage of children in band
Low	1%
Medium	14%
High	85%

11.10 Appendix J: Multivariate analysis

The Five to Twelve year 1 report aims to provide a baseline of descriptive evidence for the cohort, upon which later analyses can build. This largely constitutes statistically tested bivariate comparisons. Given the breadth of the report, multivariate analysis that controls for multiple variables to identify independent associations has been limited to key measures to support interpretation. To illustrate some of the relationships between key variables, multivariate analysis was conducted for six core measures that could be regarded to be outcome measures at this baseline point. Linear or logistic regression models were developed for longstanding health conditions, SEN, SDQ, and the three cognitive assessments, specifically: naming vocabulary exercise; recall of digits backward exercise; and picture similarities exercise. Each dependent variable was modelled with the following independent variables: FSM eligibility, SEN status (this was not included in the SEN regression), parental education and the child's gender. Interpretation of each model is provided in the relevant section of the report, as follows:

- Table 44: Section 2.3.3
- Table 45: Section 2.3.2
- Table 46: Section 2.3.6
- Table 47: Section 7.2
- Table 48: Section 7.3
- Table 49: Section 7.4

Table 50: Multivariate model: SEN

Item	Estimate	SE	P-value	Significance
(Intercept)	-0.463	0.187	0.014	*
FSM eligibility (Reference: Not eligible)	0.615	0.078	<.001	***
Parental education: Other qualifications (Reference: No qualifications)	0.247	0.245	0.315	
Parental education: GCSE or equivalent	0.096	0.160	0.551	
Parental education: AS/A Levels	-0.200	0.162	0.218	
Parental education: Higher education	-0.075	0.194	0.698	
Parental education: Degree	-0.471	0.160	0.004	**
Child gender (Reference: Male)	-1.033	0.077	<.001	***

Asterisks indicate statistical significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 51: Multivariate model: Longstanding health conditions

Item	Estimate	SE	P-value	Significance
(Intercept)	-0.532	0.135	<.001	***
FSM eligibility (Reference: Not eligible)	0.268	0.056	<.001	***
Parental education: Other qualifications (Reference: No qualifications)	-0.087	0.224	0.699	
Parental education: GCSE or equivalent	0.332	0.122	0.007	**
Parental education: AS/A Levels	0.371	0.127	0.004	**
Parental education: Higher education	0.425	0.151	0.005	**
Parental education: Degree	0.125	0.121	0.300	
Child gender (Reference: Male)	-0.195	0.048	<.001	***

Asterisks indicate statistical significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 52: Multivariate model: SDQ

Item	Estimate	SE	P-value	Significance
(Intercept)	11.142	0.486	<.001	***
FSM eligibility (Reference: Not eligible)	2.466	0.199	<.001	***
SEN status (Reference: No SEN)	5.625	0.275	<.001	***
Parental education: Other qualifications (Reference: No qualifications)	-1.373	0.634	0.031	*
Parental education: GCSE or equivalent	0.081	0.473	0.864	
Parental education: AS/A Levels	0.010	0.473	0.983	
Parental education: Higher education	-0.699	0.493	0.157	
Parental education: Degree	-2.316	0.433	<.001	***
Child gender (Reference: Male)	-0.972	0.146	<.001	***

Asterisks indicate statistical significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 53: Multivariate model: Naming vocabulary

Item	Estimate	SE	P-value	Significance
(Intercept)	47.839	0.847	<.001	***
FSM eligibility (Reference: Not eligible)	-1.435	0.301	<.001	***
SEN status (Reference: No SEN)	-6.966	0.488	<.001	***
Parental education: Other qualifications (Reference: No qualifications)	-1.759	1.268	0.166	
Parental education: GCSE or equivalent	4.701	0.761	<.001	***
Parental education: AS/A Levels	5.946	0.738	<.001	***
Parental education: Higher education	6.408	0.794	<.001	***
Parental education: Degree	6.975	0.738	<.001	***
Child gender (Reference: Male)	0.786	0.260	0.003	**

Asterisks indicate statistical significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 54: Multivariate model: Picture Similarities

Item	Estimate	SE	P-value	Significance
(Intercept)	53.044	1.085	<.001	***
FSM eligibility (Reference: Not eligible)	-1.009	0.382	0.009	**
SEN status (Reference: No SEN)	-5.401	0.596	<.001	***
Parental qualification: Other qualifications (Reference: No qualifications)	0.264	1.417	0.853	
Parental qualification: GCSE or equivalent	-0.582	0.971	0.550	
Parental qualification: AS/A Levels	0.361	0.980	0.713	
Parental qualification: Higher education	0.534	1.014	0.599	
Parental qualification: Degree	2.168	0.969	0.026	*
Child gender (Reference: Male)	1.153	0.304	<.001	***

Asterisks indicate statistical significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 55: Multivariate model: Recall of digits backward

Item	Estimate	SE	P-value	Significance
(Intercept)	55.437	1.013	<.001	***
FSM eligibility (Reference: Not eligible)	-2.326	0.372	<.001	***
SEN status (Reference: No SEN)	-9.779	0.610	<.001	**
Parental qualification: Other qualifications (Reference: No qualifications)	-1.326	1.512	0.381	
Parental qualification: GCSE or equivalent	1.623	0.973	0.096	
Parental qualification: AS/A Levels	3.36	0.934	<.001	
Parental qualification: Higher education	3.745	1.003	<.001	
Parental qualification: Degree	5.698	0.917	<.001	**
Child gender (Reference: Male)	-0.737	0.308	0.017	*

Asterisks indicate statistical significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

11.11 Appendix K: Associations across questionnaire measures by socio-demographic characteristics.

Table 50 provides an overview of association between each of the measures collected in year 1 of Five to Twelve (including the main informant and parent questionnaires, NPD data, teacher survey and child cognitive assessments) and the five core characteristics analysed throughout this report. Asterisks have been used to indicate the strength of the association between two variables at the following levels:

- p-value <0.001 (0.1% level): ***
- p-value <0.01 (1% level): **
- p-value <0.05 (5% level): *

It is important to note here that association does not equal causation.

Table 56: Associations across questionnaire measures by socio-demographic characteristics

Measure	FSM eligibility	SEN status	Cohort child gender	Main household income	Parental education
Childs longstanding health problems	***	***	***	***	***
Socio-emotional difficulties: Emotional problems	***	***		***	***
Socio-emotional difficulties: Conduct problems	***	***	***	***	***
Socio-emotional difficulties: Hyperactivity problems	***	***	***	***	***
Socio-emotional difficulties: Peer problems	***	***	***	***	***
Socio-emotional: Pro-social behaviours	***	***	***	***	***
Socio-emotional difficulties: Total difficulties	***	***	***	***	***
Home learning environment	***	***	***	***	***
Levels of noise, disorganisation, crowding and a lack of routine (CHAOS score)	***	***		***	***
Co-resident maternal subjective health	***	***		***	***
Co-resident paternal subjective health	***	*		***	***
Co-resident maternal depression	***	***		***	***
Co-resident paternal depression	***	**		***	***

Table 57 continued: Associations across questionnaire measures by socio-demographic characteristics

Measure	FSM eligibility	SEN status	Cohort child gender	Main household income	Parental education
Co-resident maternal anxiety	***	***		***	***
Co-resident paternal anxiety	***	**		***	**
Co-resident maternal drinking					
Co-resident paternal drinking	**			**	
Co-resident maternal smoking	***	***		***	***
Co-resident paternal smoking	***	**		***	***
Co-resident maternal authoritative parenting style		**			***
Co-resident paternal authoritative parenting style	***			**	
Co-resident maternal authoritarian parenting style	***		**	***	***
Co-resident paternal authoritarian parenting style				*	
Co-resident maternal permissive parenting style	***	***		***	***
Co-resident paternal permissive parenting style	**				**
Whether child has OHP	***	***		***	***
Whether OHP ever lived at same address as child	***	**		***	***
Frequency of term time contact with OHP					
Overnight stays with OHP in term time	***	***		***	***
Frequency of overnight stays with OHP in term time	**			***	**
Overnight stays with OHP during school holidays	**	***		***	**
Frequency of stays with OHP during school holidays		**		**	***
Childs behaviour at school	***	***	***	***	***
Behavioural self-regulation at school	***	***	***	***	***
Cognitive self-regulation at school	***	***	***	***	***
Emotional self-regulation at school	***	***	***	***	***

Table 58 continued: Associations across questionnaire measures by socio-demographic characteristics

Measure	FSM eligibility	SEN status	Cohort child gender	Main household income	Parental education
Overall self-regulation at school	***	***	***	***	***
Relationship between child and teacher at school	***	***	***	***	
Naming vocabulary	***	***	***	***	***
Picture similarities	***	***	***	***	***
Recall of digits backward	***	***		***	***



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