

Table of Contents

1	Introduction.....	2
2	Methodology	3
2.1	Questionnaire Design	3
2.2	Population.....	3
2.3	Sample	3
2.4	Fieldwork	3
2.5	Data Validation	3
2.6	Weighting.....	4
3	Child Product Ratios	7
3.1	Dwelling Size	9
3.2	Dwelling Type	10
3.3	Tenure	11
4	Pupil Product Ratio	13
4.1	PPR by Dwelling Size	14
4.2	PPR by Dwelling Type	18
4.3	PPR by Dwelling Tenure.....	22
5	Age Ratios	26

Appendix 1 – Data Tables

1 Introduction

In May 2019 Rapleys, in association with Gloucestershire County Council and on behalf of Crest Nicholson, Taylor Wimpey and Redrow (the commissioning partners) commissioned a research project to conduct a population forecasting study across five settlements in the County; Hunts Grove, Kingshill Meadow, Upper Rissington, Coopers Edge and Deans Farm. These sites were selected to supplement the data originally collected in 2018 at the GCHQ and Kingsway developments. The primary purpose of the study was to establish Pupil Product Ratios (PPR). The PPR is the number of children typically generated by a new housing development and is used to support proposed levels of developer contributions required under Section 106 of the Town and Country Planning Act 1990. PPRs are also used to assist with the production of pupil forecasts.

This report sets out the results of the Gloucestershire Council population study. Section 2 of this report details the methodology that was used to conduct the research and identify the PPRs. Section 3 sets out the overall Child Product Ratio. Section 4 looks specifically at the PPR results and section 5 sets out the ratios by age.

Appendix 1 contains additional data tables created as part of this study.

For the purposes of consistency in this report the following phrases are defined as follows:

Child – a household member aged between 0-19.

Resident – a household member living at the address during school term time.

2 Methodology

2.1 Questionnaire Design

The questionnaire was paper based and designed so that it could be completed with or without the assistance of an interviewer. It was developed in co-operation with Gloucestershire Council, in order to establish pupil numbers.

2.2 Population

Gloucestershire Council's Planning Service and Rapleys produced address data for each of the seven settlements, totalling 8690 dwellings. The number of dwellings in each settlement is shown in table 1, below.

Table 1 – Population Data by Settlement

Settlement	No. of Dwellings	% of Population
Coopers Edge	1808	21%
Deans Farm	520	6%
GCHQ	858	10%
Hunts Grove	1089	13%
Kingshill Meadow	676	8%
Kingsway	3371	39%
Upper Rissington	368	4%
Total	8690	

2.3 Sample

Having collected 525 interviews from the 2018 study of GCHQ and Kingsway, Cognisant conducted a census of the other five development sites.

2.4 Fieldwork

Four research assistants, supervised by a research director, conducted interviews across the two settlements during the period July to August 2019. The fieldworkers used for this study operated according to the Market Research Society Code of Conduct.

Face-to-face interviews were conducted with residents who agreed to participate. When residents were unavailable at the second visit, a questionnaire, covering letter and reply-paid envelope were posted through the letterbox. The covering letter explained to respondents why the research was taking place and provided basic instructions on how to complete and return the questionnaire. This mixed method approach of using face-to-face interviews and postal surveys was chosen because it was the most effective way of maximising participation whilst minimising fieldwork costs.

2.5 Data Validation

Prior to data entry Cognisant conducted a back check by telephone of 5% of all completed questionnaires. The back check included confirmation that the

interview had taken place and confirmed the response of at least one question. The respondents chosen for back checking were randomly selected.

Completed questionnaires were entered for analysis using specialist software. The software enables rules to be created ensuring that keystrokes used for data entry relate to a value appropriate to the question concerned. Rules were also established to ensure that only appropriate questions were served up for data entry (e.g. it would not be possible to enter data related to the age of a child, or the type of school a child attended or if the respondent indicated that they had no children). Using data entry rules in this way greatly reduces the potential for error during the process of data entry.

2.6 Weighting

Participation data shows there to have been differential response rates from respondents in dwellings of different sizes. Rapleys provided completion data for the population of new dwellings, setting out the proportion of dwellings present, broken down by size of dwelling.

In an ideal study the dwellings participating would perfectly resemble the overall make-up of the development. However, we can see that this is not the case. Table 2a shows that 41% of the dwellings that participated in this study had four bedrooms or more. In reality, this proportion should have been 30%. Cognisant weighted the results of the study by dwelling size to make the overall results more representative of the true make-up of our target population.

Table 2a – Gloucestershire Dwellings, Study Participation Totals and Weight

		Study	Target	Weight
How many bedrooms in this property?	1	1%	3%	1.9
	2	19%	25%	1.3
	3	39%	42%	1.1
	4+	41%	25%	0.6

The collective yields published later in this report have been weighted by both the size of participating dwellings, identified above and by the proportion of participating development sites, identified in table 2.

The data shown in Table 2b below provides weighting information for the GCHQ site and shows that just over half (59%) of the dwellings participated in this study at GCHQ, had 4 bedrooms or more. In reality, this proportion should have been just under half (49%).

Table 2b – GCHQ Dwellings, Study Participation Totals and Weight

		Study	Target	Weight
How many bedrooms in this property?	1	1%	0%	0.0
	2	15%	21%	1.4
	3	25%	29%	1.2
	4+	59%	49%	0.8

The data shown in Table 2c provides weighting information for the Kingsway site. The table shows that 38% of the dwellings that participated in this study had 3 bedrooms. In reality, this proportion should have been 45%.

Table 2c – Kingsway Dwellings, Study Participation Totals and Weight

		Study	Target	Weight
How many bedrooms in this property?	1	2%	2%	0.9
	2	26%	26%	1.0
	3	38%	45%	1.2
	4+	34%	28%	0.8

The data shown in Table 2d provides weighting information for the Hunts Grove site. The table shows that 38% of the dwellings that participated in this study had 3 bedrooms. In reality, this proportion should have been 53%.

Table 2d – Hunts Grove Dwellings, Study Participation Totals and Weight

		Study	Target	Weight
How many bedrooms in this property?	1	0%	0%	n/a
	2	14%	20%	1.4
	3	38%	53%	1.4
	4+	48%	27%	0.6

The data shown in Table 2e provides weighting information for the Kingshill Meadow site. The table shows that 37% of the dwellings that participated in this study had 4 bedrooms. In reality, this proportion should have been 25%.

Table 2e – Kingshill Meadow Dwellings, Study Participation Totals and Weight

		Study	Target	Weight
How many bedrooms in this property?	1	3%	9%	2.8
	2	27%	33%	1.2
	3	32%	33%	1.0
	4+	37%	25%	0.7

The data shown in Table 2f provides weighting information for the Upper Rissington site. The table shows that 34% of the dwellings that participated in this study had 3 bedrooms. In reality, this proportion should have been 27%.

Table 2f – Upper Rissington Dwellings, Study Participation Totals and Weight

		Study	Target	Weight
How many bedrooms in this property?	1	0%	6%	n/a
	2	3%	7%	2.6
	3	34%	27%	0.8
	4+	64%	60%	0.9

The data shown in Table 2g provides weighting information for the Coopers Edge site. The table shows that 36% of the dwellings that participated in this

study had 4 bedrooms or more. In reality, this proportion should have been 26%.

Table 2g – Coopers Edge Dwellings, Study Participation Totals and Weight

		Study	Target	Weight
How many bedrooms in this property?	1	1%	4%	4.2
	2	17%	26%	1.5
	3	46%	44%	1.0
	4+	36%	26%	0.7

The data shown in Table 2h provides weighting information for the Deans Farm site. The table shows that 52% of the dwellings that participated in this study had 3 bedrooms. In reality, this proportion should have been 37%.

Table 2h – Deans Farm Dwellings, Study Participation Totals and Weight

		Study	Target	Weight
How many bedrooms in this property?	1	2%	5%	2.6
	2	16%	35%	2.2
	3	52%	37%	0.7
	4+	30%	23%	0.8

3 Child Product Ratios

This section of the report identifies how many children are produced by the dwellings in the seven Gloucestershire settlements. All statistics have been rounded up to two decimal places. Where Cognisant believes that statistics should be treated with caution this important information is highlighted in the tables and footnotes below.

Table 3, below, shows the weighted and unweighted CPR for the average dwelling across all the Gloucestershire settlements. The weighted Sample Mean CPR shows that one dwelling from the sample will produce, on average, 1.02 children. The weighted sample mean has a confidence interval of ± 0.05 . This means that, if more samples were to be taken from the seven settlements, the CPR mean from these samples will lie between 0.97 and 1.07, 95% of the time.

Table 3 – Top Level CPR Statistics

	Un-weighted	Weighted by Dwelling Size
Sample Mean CPR	1.06	1.02
Sample Standard Deviation	1.16	1.07
95% Confidence Interval	± 0.06	± 0.05
	1.03	0.97
	1.09	1.07

Looking at the CPR's for each of the seven settlements in Table 4 below, the weighted CPR at GCHQ is 0.74, meaning that for every 100 dwellings there are 74 children aged 0 to 10, resident. The CPR of 0.74 has a 95% Confidence Interval of ± 0.21 . If the same study were undertaken 100 times, on 95 occasions the CPR value would be between 0.53 and 0.96. It is also interesting to note that the act of weighting the Kingsway responses has resulted in the sample mean CPR changing by only 0.01, in comparison to the sample mean CPR in GCHQ differing by a more significant 0.06.

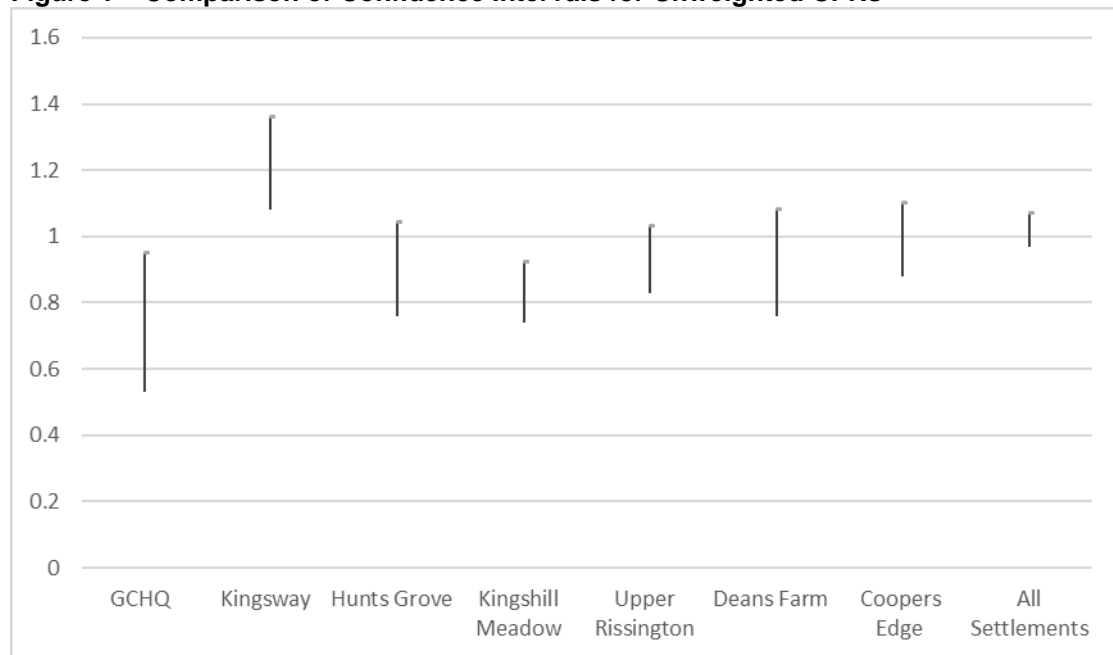
Table 4 – Top Level CPR Statistics

	Sample CPR	Mean	Sample Standard Deviation	95% Confidence Interval
GCHQ Un-weighted	0.80		1.23	± 0.23
GCHQ Weighted	0.74		1.13	± 0.21
Kingsway Un-weighted	1.23		1.24	± 0.11
Kingsway Weighted	1.22		1.50	± 0.14
Hunts Grove Un-weighted	0.96		1.02	± 0.16
Hunts Grove Weighted	0.90		0.86	± 0.14

	Sample CPR	Mean	Sample Deviation	Standard	95% Interval	Confidence
Kingshill Meadow Un-weighted	0.83		1.03		±0.15	
Kingshill Meadow Weighted	0.73		0.60		±0.09	
Upper Rissington Un-weighted	1.03		1.03		±0.17	
Upper Rissington Weighted	0.93		0.64		±0.10	
Coopers Edge Un-weighted	1.09		1.18		±0.13	
Coopers Edge Weighted	0.99		1.03		±0.11	
Deans Farm Un-weighted	1.03		1.14		±0.22	
Deans Farm Weighted	0.92		0.83		±0.16	

Figure 1 below shows the mean sample CPRs for all settlements. The 95% confidence intervals for these means has been included, to highlight the comparative differences in width of the three cases.

Figure 1 – Comparison of Confidence Intervals for Unweighted CPRs



3.1 Dwelling Size

Table 5, below, shows how many children are produced when a new dwelling is built on the seven Gloucestershire sites, broken down by the size of the dwelling as defined by the number of bedrooms. The data in this table has been weighted to take into account participation across dwelling size. Participation data for size categories can be found in Table A of Appendix 1. The results show that a 2-bedroom dwelling typically generates 0.62 children, whilst a dwelling of 4-bedrooms or more generates 1.33 children.

Table 5 – CPR Across all Sizes of Dwelling

How many bedrooms in this property?	CPR
1	0.03
2	0.62
3	1.10
4+	1.33

Table 6, below, shows the CPR's for each of the two settlements in Gloucestershire broken down by size of dwelling. The table shows that Kingsway produces the largest number of children from a single dwelling, at 1.56 from dwellings of 4 beds or more.

Table 6 – CPR Across all Sizes of Dwelling by Settlement

How many bedrooms in this property?	1	2	3	4+
GCHQ	0.00 ¹	0.12 ²	0.74	1.02
Kingsway	0.10	0.69	1.37	1.56
Hunts Grove	n/a	0.52	0.95	1.10
Kingshill Meadow	0.00 ³	0.53	0.82	1.14
Upper Rissington	0.00	0.00 ⁴	0.98	1.11
Coopers Edge	0.00 ⁵	0.79	0.92	1.48
Deans Farm	0.00 ⁶	0.69 ⁷	1.00	1.32

¹ Appendix 1, Table B, indicates that only 1 completed interviews was conducted in a 1-bed dwelling at GCHQ. This small sample size may make estimates unreliable.

² Appendix 1, Table B, indicates that only 17 completed interviews were conducted in 2-bed dwellings at GCHQ. This small sample size may make estimates unreliable.

³ Appendix 1, Table E, indicates that only 6 completed interviews were conducted in 1-bed dwellings at Kingshill Meadow. This small sample size may make estimates unreliable.

⁴ Appendix 1, Table F, indicates that only 4 completed interviews were conducted in 2-bed dwellings at Upper Rissington. This small sample size may make estimates unreliable.

⁵ Appendix 1, Table G, indicates that only 3 completed interviews were conducted in 1-bed dwellings at Coopers Edge. This small sample size may make estimates unreliable.

⁶ Appendix 1, Table H, indicates that only 2 completed interviews were conducted in 1-bed dwellings at Deans Farm. This small sample size may make estimates unreliable.

⁷ Appendix 1, Table H, indicates that only 16 completed interviews were conducted in 2-bed dwellings at Deans Farm. This small sample size may make estimates unreliable.

3.2 Dwelling Type

Table 7, below, shows how many children are produced when a new dwelling is built on each of the seven Gloucestershire sites, broken down by the type of dwelling. Table 7 shows that the average number of children produced by one Detached house is 1.15, whilst only 0.45 children are created for every one Flat/Apartment. Participation data for dwelling type categories can be found in Table B of Appendix 1.

Table 7: No. of Children Produced by One New Dwelling Broken Down by Dwelling Type

What type of dwelling do you live in?	CPR
Detached	1.15
Semi detached	1.08
Flat/Apartment	0.45
Terrace/End terrace	1.03

Table 8, below, shows how many children are produced when a new dwelling is built on each of the seven Gloucestershire sites, broken down by the type of dwelling. Table 8 shows that Kingsway produces the largest number of children across all settlements from a Terrace/End terrace, with a CPR of 1.33.

Table 8: No. of Children Produced by One New Dwelling Broken Down by Dwelling Type across the two Settlements

What type of dwelling do you live in?	Detached	Semi detached	Flat/Apartment	Terrace/End terrace
GCHQ	0.73	0.52	0.15 ⁸	1.10
Kingsway	1.32	1.31	0.61	1.33
Hunts Grove	1.07	0.97	0.56 ⁹	0.78
Kingshill Meadow	0.88	0.80	0.23	0.84
Upper Rissington	1.03	0.73	n/a	0.73
Coopers Edge	1.28	1.03	0.46 ¹⁰	0.95
Deans Farm	0.91	1.07	0.00 ¹¹	0.78 ¹²

⁸ Appendix 1, Table B, indicates that only 12 completed interviews were conducted in Flat/Apartments at GCHQ. This small sample size may make estimates unreliable.

⁹ Appendix 1, Table D, indicates that only 4 completed interviews were conducted in Flat/Apartments at Hunts Grove. This small sample size may make estimates unreliable.

¹⁰ Appendix 1, Table G, indicates that only 13 completed interviews were conducted in Flat/Apartments at Coopers Edge. This small sample size may make estimates unreliable.

¹¹ Appendix 1, Table H, indicates that only 2 completed interviews were conducted in Flat/Apartments at Deans Farm. This small sample size may make estimates unreliable.

¹² Appendix 1, Table H, indicates that only 11 completed interviews were conducted in Terrace/End terrace at Deans Farm. This small sample size may make estimates unreliable.

3.3 Tenure

Table 9, below, sets out the CPR for different dwelling tenures across the two Gloucestershire sites. Table 9 shows that the average number of children produced by one Owned (inc. mortgaged) dwelling is 0.83, whilst 1.11 children are created for every privately rented dwelling. Participation data for tenure categories can be found in Table C of Appendix 1.

Table 9: No. of Children Produced by 1 New Dwelling Broken Down by Tenure

What is the tenure of this property?	Unweighted
Owned (inc. mortgaged)	0.83
Privately rented	1.11
Shared ownership (part own/part rent)	0.72
Housing Association/Council	1.76

Table 10, below, sets out the CPR for different dwelling tenures across each of the seven Gloucestershire sites. Table 10 shows that Kingsway produces the largest number of children from a single dwelling, at 2.06 from Housing Association / Council housing. The second largest number of children from a single dwelling, at 1.88 from Housing Association / Council housing at Hunts Grove.

Table 10: No. of Children Produced by 1 New Dwelling Broken Down by Tenure

What is the tenure of this property?	Owned (inc. mortgaged)	Privately rented	Shared ownership (part own/part rent)	Housing Association/Council
GCHQ	0.51	1.56	0.00 ¹³	n/a
Kingsway	0.94	1.32	0.80	2.06
Hunts Grove	0.82	0.51 ¹⁴	1.50 ¹⁵	1.88 ¹⁶
Kingshill Meadow	0.66	0.52	0.42 ¹⁷	1.30
Upper Rissington	0.90	1.01 ¹⁸	0.61 ¹⁹	1.44 ²⁰
Coopers	0.87	0.90	0.75 ²¹	1.49

¹³ Appendix 1, Table J, indicates that only 2 completed interviews were conducted in Shared ownership at GCHQ. This small sample size may make estimates unreliable.

¹⁴ Appendix 1, Table L, indicates that only 9 completed interviews were conducted in privately rented dwellings at Hunts Grove. This small sample size may make estimates unreliable.

¹⁵ Appendix 1, Table L, indicates that only 4 completed interviews were conducted in shared ownership dwellings at Hunts Grove. This small sample size may make estimates unreliable.

¹⁶ Appendix 1, Table L, indicates that only 9 completed interviews were conducted in housing association dwellings at Hunts Grove. This small sample size may make estimates unreliable.

¹⁷ Appendix 1, Table M, indicates that only 15 completed interviews were conducted in shared ownership dwellings at Kingshill Meadow. This small sample size may make estimates unreliable.

¹⁸ Appendix 1, Table N, indicates that only 11 completed interviews were conducted in privately rented dwellings at Upper Rissington. This small sample size may make estimates unreliable.

¹⁹ Appendix 1, Table N, indicates that only 6 completed interviews were conducted in shared ownership dwellings at Upper Rissington. This small sample size may make estimates unreliable.

²⁰ Appendix 1, Table N, indicates that only 11 completed interviews were conducted in housing association dwellings at Hunts Grove. This small sample size may make estimates unreliable.

What is the tenure of this property?	Owned (inc. mortgaged)	Privately rented	Shared ownership (part own/part rent)	Housing Association/Council
Edge				
Deans Farm	0.86	0.00 ²²	0.63 ²³	1.38 ²⁴

²¹ Appendix 1, Table O, indicates that only 9 completed interviews were conducted in shared ownership dwellings at Coopers Edge. This small sample size may make estimates unreliable.

²² Appendix 1, Table P, indicates that only 1 completed interviews were conducted in privately rented dwellings at Deans Farm. This small sample size may make estimates unreliable.

²³ Appendix 1, Table P, indicates that only 15 completed interviews were conducted in shared ownership dwellings at Deans Farm. This small sample size may make estimates unreliable.

²⁴ Appendix 1, Table P, indicates that only 19 completed interviews were conducted in housing association dwellings at Hunts Grove. This small sample size may make estimates unreliable.

4 Pupil Product Ratio

This section of the report identifies how many children, broken down across the different schooling classifications, including pre-school and those eligible for post-16 education, are produced by the dwellings across the two Gloucestershire settlements. All statistics have been rounded up to two decimal places.

Where a respondent indicated that a child was resident, they were required to indicate which type of schooling, if any, the child attends. Respondents could choose from a variety of categories covering pre-school, primary, secondary and post-16 education. Categories covered independents and state education as well as home educated.

The data presented in Table 3, in the previous section, showed that the weighted CPR for the average settlement dwelling is 1.02. Table 11, below, breaks this figure down across each category of schooling. The results show that the weighted PPR for Primary School children in Gloucestershire is 0.41.

Table 11 - Top Level PPR Statistics

	Un-weighted	Weighted
Total Number of Pre School Children	0.30	0.30
Total Number of Primary School Children	0.43	0.41
Total Number of Secondary School Children	0.21	0.20
Total Number of Post 16 Children	0.07	0.11

Broken down by type of dwelling, the PPR's for each of the seven settlements show that Kingsway produces the largest number of primary school pupils from a single dwelling, at 0.49.

Table 12 - Top Level PPR Statistics

What is the tenure of this property?	Total Number of Pre School Children	Total Number of Primary School Children	Total Number of Secondary School Children	Total Number of Post 16 Children
GCHQ	0.20	0.26	0.17	0.11
Kingsway	0.33	0.49	0.26	0.15
Hunts Grove	0.31	0.40	0.11	0.08
Kingshill Meadow	0.18	0.28	0.18	0.09
Upper Rissington	0.24	0.41	0.21	0.07
Coopers Edge	0.34	0.43	0.16	0.06
Deans Farm	0.38	0.31	0.15	0.07

4.1 PPR by Dwelling Size

Table 13a, below, shows how many pupils are produced by new dwellings built across the two Gloucestershire settlements, broken down by the size of the dwelling as defined by the number of bedrooms. The results show that a 2-bedroom dwelling typically generates 0.24 primary school pupils, whilst a dwelling of 4-bedrooms or more generates 0.54 primary school pupils.

Table 13a – PPR Across all Sizes of Dwelling

	No. of Bedrooms in Dwelling			
	1	2	3	4+
Total Number of Pre School Children	0.05	0.28	0.31	0.31
Total Number of Primary School Children	0.00	0.24	0.44	0.54
Total Number of Secondary School Children	0.00	0.07	0.20	0.32
Total Number of Post 16 Children	0.00	0.02	0.12	0.17

Table 13b, below, shows how many pupils are produced by new dwellings built across GCHQ, broken down by the size of the dwelling as defined by the number of bedrooms. The results show that a 3-bedroom dwelling typically generates 0.26 primary school pupils, whilst a dwelling of 4-bedrooms or more generates 0.34 primary school pupils.

Table 13b – PPR Across all Sizes of Dwelling in GCHQ

	No. of Bedrooms in Dwelling			
	1²⁵	2²⁶	3	4+
Total Number of Pre School Children	0.00	0.06	0.26	0.23
Total Number of Primary School Children	0.00	0.06	0.26	0.34
Total Number of Secondary School Children	0.00	0.00	0.07	0.31
Total Number of Post 16 Children	0.00	0.00	0.15	0.14

Table 13c, below, shows how many pupils are produced by new dwellings built across Kingsway, broken down by the size of the dwelling as defined by the number of bedrooms. The results show that a 2-bedroom dwelling typically generates 0.26 primary school pupils, whilst a dwelling of 4-bedrooms or more generates 0.63 primary school pupils.

Table 13c – PPR Across all Sizes of Dwelling in Kingsway

	No. of Bedrooms in Dwelling			
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²⁵ Appendix 1, Table B, indicates that only 1 completed interviews was conducted in a 1-bed dwelling at GCHQ. This small sample size may make estimates unreliable.

²⁶ Appendix 1, Table B, indicates that only 17 completed interviews were conducted in 2-bed dwellings at GCHQ. This small sample size may make estimates unreliable.

	1²⁷	2	3	4+
Total Number of Pre School Children	0.10	0.32	0.36	0.29
Total Number of Primary School Children	0.00	0.26	0.55	0.63
Total Number of Secondary School Children	0.00	0.08	0.28	0.43
Total Number of Post 16 Children	0.00	0.04	0.17	0.22

Table 13d, below, shows how many pupils are produced by new dwellings built across Hunts Grove, broken down by the size of the dwelling as defined by the number of bedrooms. The results show that a 2-bedroom dwelling typically generates 0.29 primary school pupils, whilst a dwelling of 4-bedrooms or more generates 0.58 primary school pupils.

Table 13d – PPR Across all Sizes of Dwelling in Hunts Grove

	No. of Bedrooms in Dwelling			
	1	2	3	4+
Total Number of Pre School Children	n/a	0.19	0.40	0.25
Total Number of Primary School Children	n/a	0.29	0.34	0.58
Total Number of Secondary School Children	n/a	0.05	0.14	0.11
Total Number of Post 16 Children	n/a	0.00	0.07	0.16

Table 13e, below, shows how many pupils are produced by new dwellings built across Kingshill Meadow, broken down by the size of the dwelling as defined by the number of bedrooms. The results show that a 2-bedroom dwelling typically generates 0.22 primary school pupils, whilst a dwelling of 4-bedrooms or more generates 0.43 primary school pupils.

Table 13e – PPR Across all Sizes of Dwelling in Kingshill Meadow

	No. of Bedrooms in Dwelling			
	1²⁸	2	3	4+

²⁷ Appendix 1, Table C, indicates that only 10 completed interviews was conducted in 1-bed dwellings at Kingsway. This small sample size may make estimates unreliable

²⁸ Appendix 1, Table E, indicates that only 6 completed interviews was conducted in 1-bed dwellings at Kingshill Meadow. This small sample size may make estimates unreliable

Total Number of Pre School Children	0.00	0.18	0.12	0.33
Total Number of Primary School Children	0.00	0.22	0.30	0.43
Total Number of Secondary School Children	0.00	0.12	0.23	0.26
Total Number of Post 16 Children	0.00	0.02	0.17	0.12

Table 13f, below, shows how many pupils are produced by new dwellings built across Upper Rissington, broken down by the size of the dwelling as defined by the number of bedrooms. The results show that a 2-bedroom dwelling typically generates 0.00 primary school pupils, whilst a dwelling of 4-bedrooms or more generates 0.47 primary school pupils.

Table 13f – PPR Across all Sizes of Dwelling in Upper Rissington

	No. of Bedrooms in Dwelling			
	1	2²⁹	3	4+
Total Number of Pre School Children	0.00	0.00	0.14	0.33
Total Number of Primary School Children	0.00	0.00	0.48	0.47
Total Number of Secondary School Children	0.00	0.00	0.26	0.24
Total Number of Post 16 Children	0.00	0.00	0.10	0.06

Table 13g, below, shows how many pupils are produced by new dwellings built across Coopers Edge, broken down by the size of the dwelling as defined by the number of bedrooms. The results show that a 2-bedroom dwelling typically generates 0.34 primary school pupils, whilst a dwelling of 4-bedrooms or more generates 0.61 primary school pupils.

Table 13g – PPR Across all Sizes of Dwelling in Coopers Edge

	No. of Bedrooms in Dwelling			
	1³⁰	2	3	4+
Total Number of Pre School	0.00	0.36	0.32	0.40

²⁹ Appendix 1, Table F, indicates that only 4 completed interviews was conducted in 2-bed dwellings at Upper Rissington. This small sample size may make estimates unreliable

³⁰ Appendix 1, Table G, indicates that only 3 completed interviews was conducted in 1-bed dwellings at Coopers Edge. This small sample size may make estimates unreliable

Children				
Total Number of Primary School Children	0.00	0.34	0.43	0.61
Total Number of Secondary School Children	0.00	0.09	0.12	0.31
Total Number of Post 16 Children	0.00	0.00	0.05	0.16

Table 13h, below, shows how many pupils are produced by new dwellings built across Deans Farm, broken down by the size of the dwelling as defined by the number of bedrooms. The results show that a 2-bedroom dwelling typically generates 0.13 primary school pupils, whilst a dwelling of 4-bedrooms or more generates 0.58 primary school pupils.

Table 13h – PPR Across all Sizes of Dwelling in Deans Farm

	No. of Bedrooms in Dwelling			
	1³¹	2³²	3	4+
Total Number of Pre School Children	0.00	0.44	0.38	0.39
Total Number of Primary School Children	0.00	0.13	0.36	0.58
Total Number of Secondary School Children	0.00	0.06	0.23	0.19
Total Number of Post 16 Children	0.00	0.06	0.04	0.16

³¹ Appendix 1, Table H, indicates that only 2 completed interviews was conducted in 1-bed dwellings at Deans Farm. This small sample size may make estimates unreliable

³² Appendix 1, Table C, indicates that only 16 completed interviews was conducted in 2-bed dwellings at Deans Farm. This small sample size may make estimates unreliable

4.2 PPR by Dwelling Type

Table 14a, below, shows how many pupils are produced when a new dwelling is built across the seven Gloucestershire settlements, broken down by the type of dwelling. The results show that a detached house generates 0.45 primary school pupils, whilst a flat/apartment generates 0.17 primary school pupils.

Table 14a – PPR Across all Sizes of Dwelling Type

	Type of Dwelling			
	Detached	Semi detached	Flat / Apartment	Terrace / End terrace
Pre School Children	0.32	0.33	0.19	0.30
Primary School Children	0.49	0.44	0.19	0.40
Secondary School Children	0.23	0.21	0.06	0.21
Post 16 Children	0.12	0.11	0.02	0.12

Table 14b, below, shows how many pupils are produced when a new dwelling is built in GCHQ, broken down by the type of dwelling. The results show that a detached house generates 0.20 primary school pupils, whilst a flat/apartment generates 0.08 primary school pupils.

Table 14b – PPR Across all Types of Dwelling in GCHQ

	Type of Dwelling			
	Detached	Semi detached	Flat / Apartment ³³	Terrace / End terrace
Pre School Children	0.23	0.21	0.08	0.23
Primary School Children	0.20	0.16	0.08	0.40
Secondary School Children	0.21	0.11	0.00	0.26
Post 16 Children	0.09	0.05	0.00	0.20

Table 14c, below, shows how many pupils are produced when a new dwelling is built in Kingsway, broken down by the type of dwelling. The results show that a detached house generates 0.56 primary school pupils, whilst a flat/apartment generates 0.23 primary school pupils.

Table 14c – PPR Across all Types of Dwelling in Kingsway

Type of Dwelling				
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³³ Appendix 1, Table B, indicates that only 12 completed interviews were conducted in a Flat/Apartment dwelling in GCHQ. This small sample size may make estimates unreliable

	Detached	Semi detached	Flat / Apartment	Terrace / End terrace
Pre School Children	0.33	0.34	0.28	0.32
Primary School Children	0.56	0.51	0.23	0.52
Secondary School Children	0.28	0.29	0.06	0.30
Post 16 Children	0.14	0.17	0.04	0.19

Table 14d, below, shows how many pupils are produced when a new dwelling is built in Hunts Grove, broken down by the type of dwelling. The results show that a detached house generates 0.53 primary school pupils, whilst a flat/apartment generates 0.45 primary school pupils.

Table 14d – PPR Across all Types of Dwelling in Hunts Grove

	Type of Dwelling			
	Detached	Semi detached	Flat / Apartment³⁴	Terrace / End terrace
Pre School Children	0.26	0.31	0.03	0.37
Primary School Children	0.53	0.48	0.45	0.24
Secondary School Children	0.12	0.11	0.08	0.11
Post 16 Children	0.16	0.06	0.00	0.06

Table 14e, below, shows how many pupils are produced when a new dwelling is built in Kingshill Meadow, broken down by the type of dwelling. The results show that a detached house generates 0.34 primary school pupils, whilst a flat/apartment generates 0.08 primary school pupils.

³⁴ Appendix 1, Table D, indicates that only 4 completed interviews were conducted in a Flat/Apartment dwelling in Hunts Grove. This small sample size may make estimates unreliable

Table 14e – PPR Across all Types of Dwelling in Kingshill Meadow

	Type of Dwelling			
	Detached	Semi detached	Flat / Apartment	Terrace / End terrace
Pre School Children	0.25	0.18	0.07	0.19
Primary School Children	0.34	0.35	0.08	0.31
Secondary School Children	0.21	0.19	0.06	0.22
Post 16 Children	0.09	0.08	0.03	0.12

Table 14f, below, shows how many pupils are produced when a new dwelling is built in Upper Rissington, broken down by the type of dwelling. The results show that a detached house generates 0.44 primary school pupils.

Table 14f – PPR Across all Types of Dwelling in Upper Rissington

	Type of Dwelling			
	Detached	Semi detached	Flat / Apartment	Terrace / End terrace
Pre School Children	0.30	0.10	n/a	0.11
Primary School Children	0.44	0.42	n/a	0.29
Secondary School Children	0.22	0.17	n/a	0.23
Post 16 Children	0.06	0.04	n/a	0.11

Table 14g, below, shows how many pupils are produced when a new dwelling is built in Coopers Edge, broken down by the type of dwelling. The results show that a detached house generates 0.53 primary school pupils, whilst a flat/apartment generates 0.29 primary school pupils.

Table 14g – PPR Across all Types of Dwelling in Coopers Edge

	Type of Dwelling			
	Detached	Semi detached	Flat / Apartment³⁵	Terrace / End terrace
Pre School Children	0.41	0.38	0.16	0.31
Primary School Children	0.53	0.44	0.21	0.43
Secondary School Children	0.24	0.15	0.08	0.14
Post 16 Children	0.10	0.06	0.00	0.06

Table 14h, below, shows how many pupils are produced when a new dwelling is built in Deans Farm, broken down by the type of dwelling. The results show that a detached house generates 0.36 primary school pupils.

Table 14h – PPR Across all Types of Dwelling in Deans Farm

	Type of Dwelling			
	Detached	Semi detached	Flat / Apartment³⁶	Terrace / End terrace³⁷
Pre School Children	0.36	0.45	0.00	0.38
Primary School Children	0.36	0.32	0.00	0.26
Secondary School Children	0.12	0.21	0.00	0.09
Post 16 Children	0.07	0.09	0.00	0.06

³⁵ Appendix 1, Table G, indicates that only 13 completed interviews were conducted in a Flat/Apartment dwelling in Coopers Edge. This small sample size may make estimates unreliable

³⁶ Appendix 1, Table H, indicates that only 2 completed interviews were conducted in a Flat/Apartment dwelling in Deans Farm. This small sample size may make estimates unreliable

³⁷ Appendix 1, Table B, indicates that only 11 completed interviews were conducted in a Terrace/End terrace dwelling in Deans Farm. This small sample size may make estimates unreliable

4.3 PPR by Dwelling Tenure

Table 15a, below, shows how many pupils are produced when a new dwelling is built in the two Gloucestershire settlements, broken down by the type of dwelling. The results show that an Owned (inc. mortgaged) dwelling, generates 0.33 primary school pupils, whilst a privately rented dwelling generates 0.50 primary school pupils.

Table 15a – PPR Across all Types of Dwelling Tenures

	Owned (inc. mortgaged)	Rent privately	Shared ownership (part own / part rent)	Rent from Housing Association / Council
Pre School Children	0.30	0.26	0.28	0.37
Primary School Children	0.33	0.50	0.31	0.68
Secondary School Children	0.14	0.24	0.09	0.41
Post 16 Children	0.06	0.11	0.04	0.29

Table 15b, below, shows how many pupils are produced when a new dwelling is built in GCHQ, broken down by the type of dwelling. The results show that an Owned (inc. mortgaged) dwelling, generates 0.14 primary school pupils, whilst a privately rented dwelling generates 0.65 primary school pupils.

Table 15b – PPR Across all Types of Dwelling Tenures in GCHQ

	Owned (inc. mortgaged)	Rent privately	Shared ownership (part own / part rent) ³⁸
Pre School Children	0.20	0.25	0.00
Primary School Children	0.14	0.65	0.00
Secondary School Children	0.12	0.36	0.00
Post 16 Children	0.05	0.32	0.00

Table 15c, below, shows how many pupils are produced when a new dwelling is built in Kingsway, broken down by the type of dwelling. The results show that an Owned (inc. mortgaged) dwelling, generates 0.37 primary school pupils, whilst a Housing Association / Council rented dwelling generates 0.78 primary school pupils.

Table 15c – PPR Across all Types of Dwelling Tenures in Kingsway

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³⁸ Appendix 1, Table J, indicates that only 2 completed interviews were conducted in Shared ownership dwellings in GCHQ. This small sample size may make estimates unreliable.

	Owned (inc. mortgaged)	Rent privately	Shared ownership (part own / part rent)	Rent from Housing Association / Council
Pre School Children	0.30	0.37	0.31	0.37
Primary School Children	0.37	0.59	0.33	0.78
Secondary School Children	0.20	0.24	0.05	0.52
Post 16 Children	0.07	0.12	0.11	0.39

Table 15d, below, shows how many pupils are produced when a new dwelling is built in Hunts Grove, broken down by the type of dwelling. The results show that an Owned (inc. mortgaged) dwelling, generates 0.34 primary school pupils, whilst a Housing Association / Council rented dwelling generates 1.06 primary school pupils.

Table 15d – PPR Across all Types of Dwelling Tenures in Hunts Grove

	Owned (inc. mortgaged)	Rent privately ³⁹	Shared ownership (part own / part rent) ⁴⁰	Rent from Housing Association / Council ⁴¹
Pre School Children	0.34	0.00	1.01	0.12
Primary School Children	0.34	0.34	0.49	1.06
Secondary School Children	0.07	0.11	0.00	0.36
Post 16 Children	0.06	0.05	0.00	0.35

Table 15e, below, shows how many pupils are produced when a new dwelling is built in Kinghills Meadow, broken down by the type of dwelling. The results show that an Owned (inc. mortgaged) dwelling, generates 0.26 primary school pupils, whilst a Housing Association / Council rented dwelling generates 0.55 primary school pupils.

³⁹ Appendix 1, Table L, indicates that only 9 completed interviews were conducted in privately rented dwellings in Hunts Grove. This small sample size may make estimates unreliable.

⁴⁰ Appendix 1, Table L, indicates that only 4 completed interviews were conducted in Shared ownership dwellings in Hunts Grove. This small sample size may make estimates unreliable.

⁴¹ Appendix 1, Table L, indicates that only 9 completed interviews were conducted in housing association dwellings in Hunts Grove. This small sample size may make estimates unreliable.

Table 15e – PPR Across all Types of Dwelling Tenures in Kinghills Meadow

	Owned (inc. mortgaged)	Rent privately	Shared ownership (part own / part rent)⁴²	Rent from Housing Association / Council
Pre School Children	0.25	0.14	0.21	0.10
Primary School Children	0.26	0.16	0.05	0.55
Secondary School Children	0.10	0.22	0.17	0.33
Post 16 Children	0.05	0.00	0.00	0.32

Table 15f, below, shows how many pupils are produced when a new dwelling is built in Upper Rissington, broken down by the type of dwelling. The results show that an Owned (inc. mortgaged) dwelling, generates 0.42 primary school pupils, whilst a Housing Association / Council rented dwelling generates 0.36 primary school pupils.

Table 15f – PPR Across all Types of Dwelling Tenures in Upper Rissington

	Owned (inc. mortgaged)	Rent privately⁴³	Shared ownership (part own / part rent)⁴⁴	Rent from Housing Association / Council⁴⁵
Pre School Children	0.26	0.15	0.10	0.14
Primary School Children	0.42	0.48	0.31	0.34
Secondary School Children	0.18	0.46	0.10	0.48
Post 16 Children	0.04	0.08	0.00	0.34

Table 15g, below, shows how many pupils are produced when a new dwelling is built in Coopers Edge, broken down by the type of dwelling. The results show that an Owned (inc. mortgaged) dwelling, generates 0.37 primary school pupils, whilst a Housing Association / Council rented dwelling generates 0.59 primary school pupils.

Table 15g – PPR Across all Types of Dwelling Tenures in Coopers Edge

⁴² Appendix 1, Table M, indicates that only 15 completed interviews were conducted in Shared ownership dwellings in Kingshill Meadow. This small sample size may make estimates unreliable.

⁴³ Appendix 1, Table N, indicates that only 11 completed interviews were conducted in privately rented ownership dwellings in Upper Rissington. This small sample size may make estimates unreliable.

⁴⁴ Appendix 1, Table N, indicates that only 6 completed interviews were conducted in Shared ownership dwellings in Upper Rissington. This small sample size may make estimates unreliable.

⁴⁵ Appendix 1, Table N, indicates that only 11 completed interviews were conducted in housing association dwellings in Upper Rissington. This small sample size may make estimates unreliable.

	Owned (inc. mortgaged)	Rent privately	Shared ownership (part own / part rent) ⁴⁶	Rent from Housing Association / Council
Pre School Children	0.35	0.23	0.00	0.48
Primary School Children	0.37	0.46	0.51	0.59
Secondary School Children	0.10	0.19	0.25	0.28
Post 16 Children	0.05	0.03	0.00	0.14

Table 15h, below, shows how many pupils are produced when a new dwelling is built in Deans Farm, broken down by the type of dwelling. The results show that an Owned (inc. mortgaged) dwelling, generates 0.26 primary school pupils, whilst a Housing Association / Council rented dwelling generates 0.41 primary school pupils.

Table 15h – PPR Across all Types of Dwelling Tenures in Deans Farm

	Owned (inc. mortgaged)	Rent privately ⁴⁷	Shared ownership (part own / part rent) ⁴⁸	Rent from Housing Association / Council ⁴⁹
Pre School Children	0.37	0.00	0.24	0.56
Primary School Children	0.26	0.00	0.36	0.41
Secondary School Children	0.12	0.00	0.04	0.32
Post 16 Children	0.10	0.00	0.00	0.09

⁴⁶ Appendix 1, Table O, indicates that only 9 completed interviews were conducted in Shared ownership dwellings in Coopers Edge. This small sample size may make estimates unreliable.

⁴⁷ Appendix 1, Table P, indicates that only 1 completed interviews were conducted in privately rented dwellings in Deans Farm. This small sample size may make estimates unreliable.

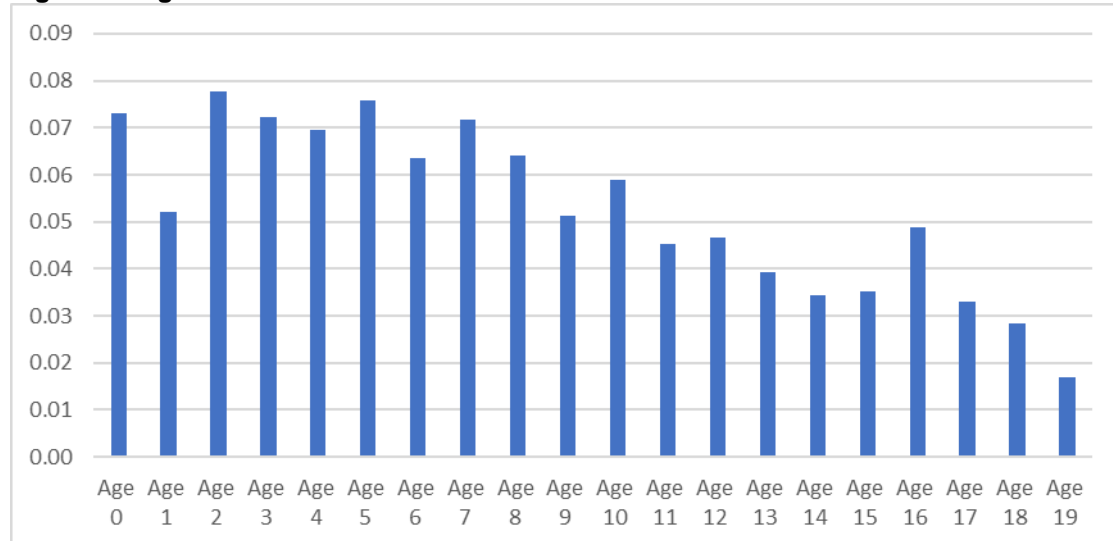
⁴⁸ Appendix 1, Table P, indicates that only 15 completed interviews were conducted in Shared ownership dwellings in Deans Farm. This small sample size may make estimates unreliable.

⁴⁹ Appendix 1, Table P, indicates that only 19 completed interviews were conducted in housing association dwellings in Deans Farm. This small sample size may make estimates unreliable.

5 Age Ratios

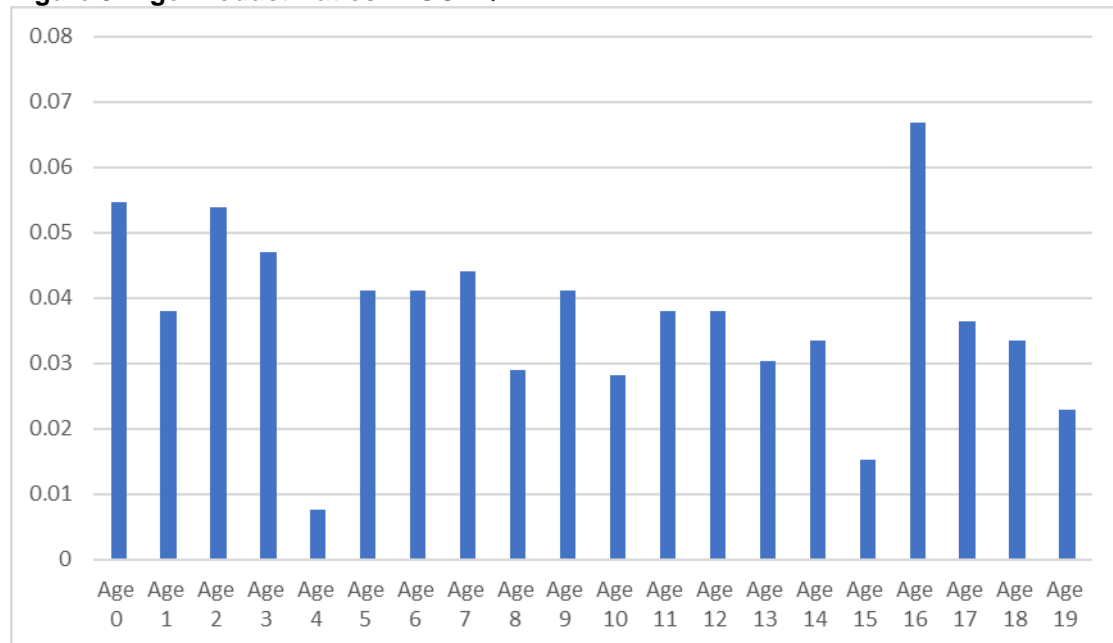
Looking at the individual ages of the children identified in the study, the largest number of children by age was 2 year olds, at 7.4%. Indeed, children aged 0 to 7 years old accounted for 52.5% of all the children identified.

Figure 2 - Age Product Ratios



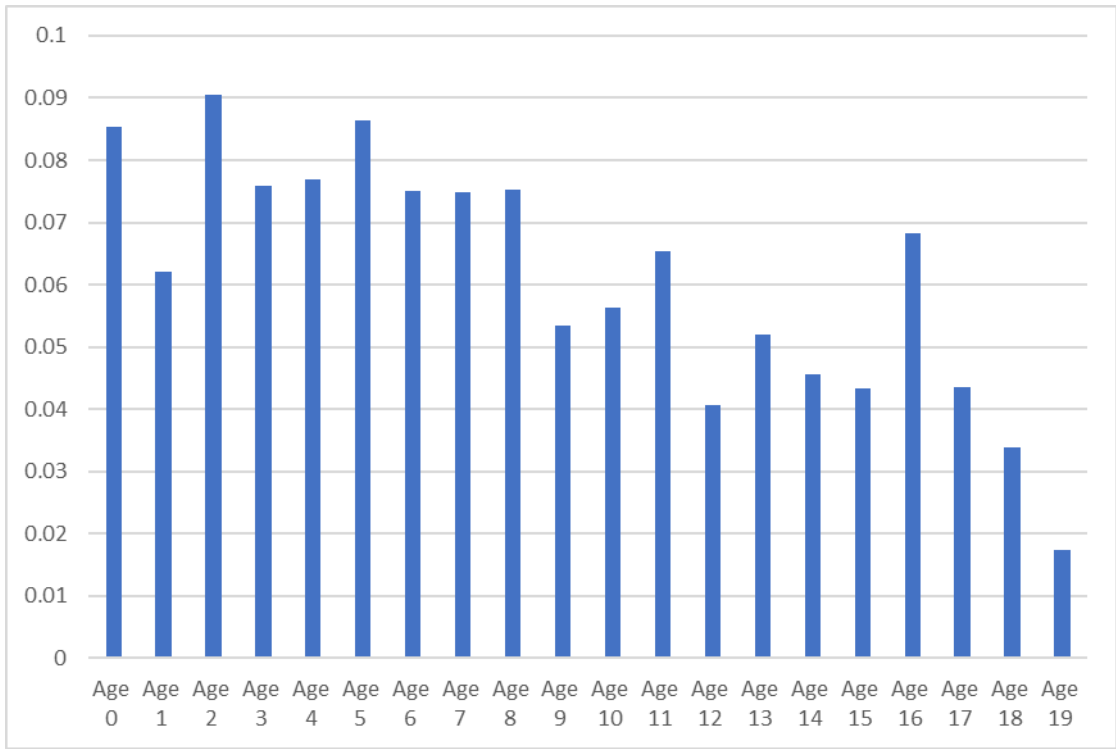
Looking at the individual ages of the children identified in the study living in GCHQ, the largest number of children by age was 16 year olds, at 9.3%.

Figure 3- Age Product Ratios in GCHQ



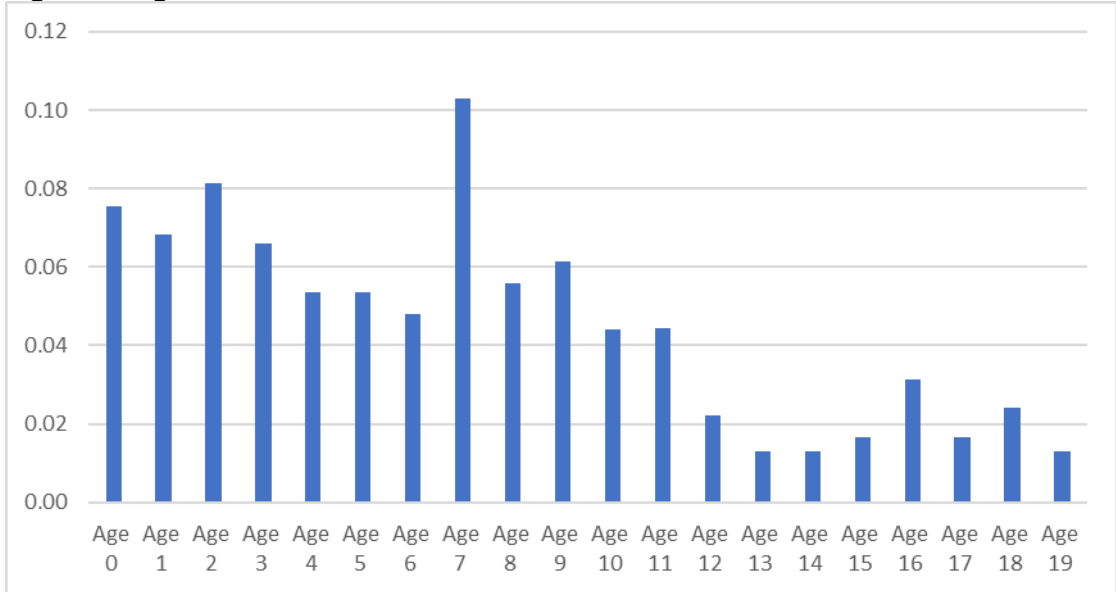
Looking at the individual ages of the children identified in the study living in Kingsway, the largest number of children by age was 2 year olds, at 7.4%.

Figure 4 - Age Product Ratios in Kingsway



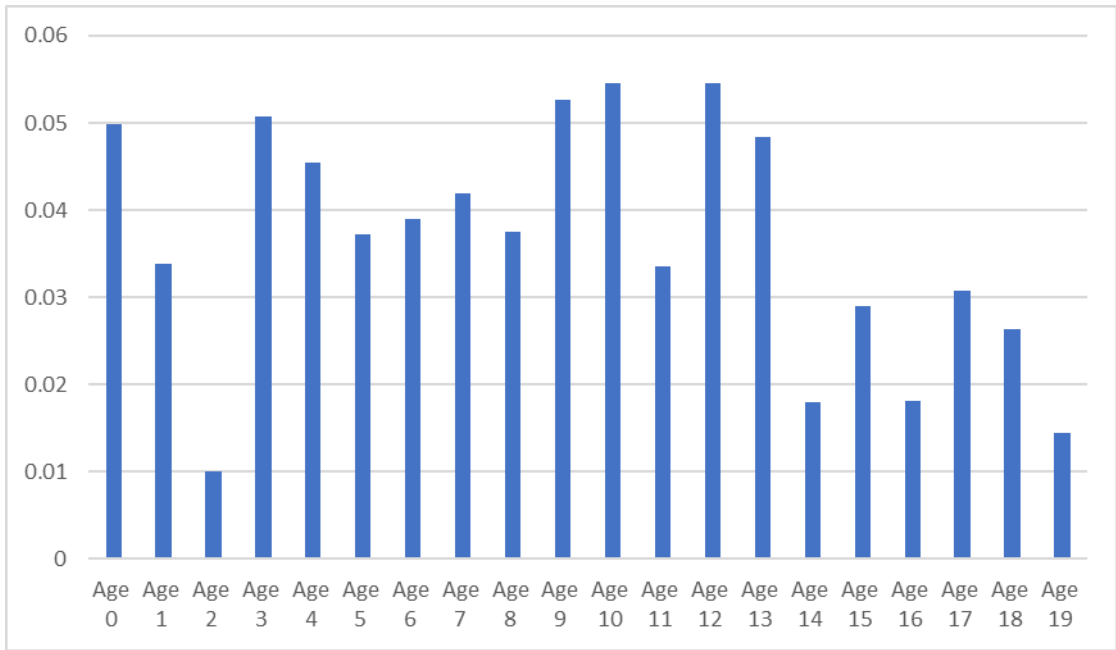
Looking at the individual ages of the children identified in the study living in Hunts Grove, the largest number of children by age was 7 year olds, at 11.4%.

Figure 5 - Age Product Ratios in Hunts Grove



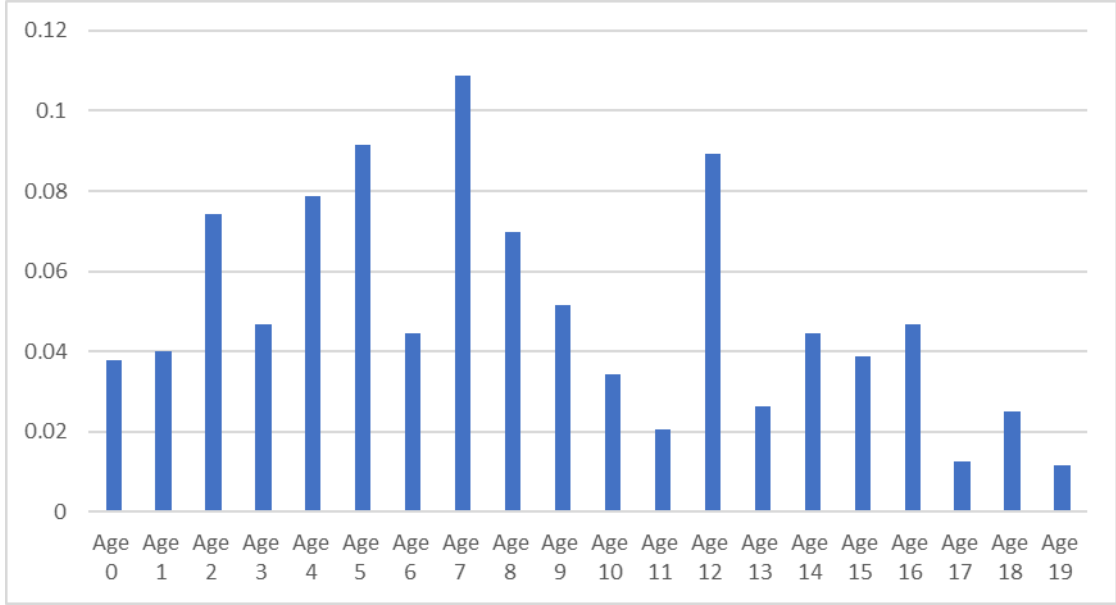
Looking at the individual ages of the children identified in the study living in Kingshill Meadow, the largest number of children by age was 12 year olds, at 7.7%.

Figure 6 - Age Product Ratios in Kingshill Meadow



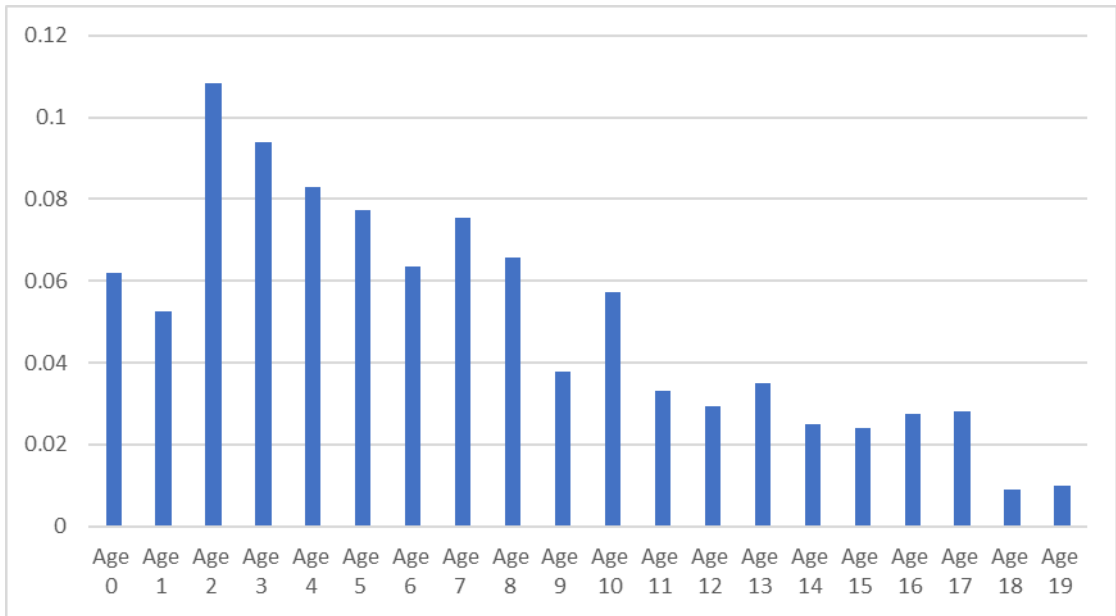
Looking at the individual ages of the children identified in the study living in Upper Rissington, the largest number of children by age was 7 year olds, at 10.9%.

Figure 7 - Age Product Ratios in Upper Rissington



Looking at the individual ages of the children identified in the study living in Coopers Edge, the largest number of children by age was 2 year olds, at 10.9%.

Figure 8 - Age Product Ratios in Coopers Edge



Looking at the individual ages of the children identified in the study living in Deans Farm, the largest number of children by age was 0 year olds, at 14.1%.

Figure 9 - Age Product Ratios in Deans Farm

