# Population Forecasting Study, Executive Summary

# Population Forecasts for New Dwellings 2015, conducted by Cognisant Research for Central Bedfordshire Council

In August 2014, Central Bedfordshire Council commissioned a research project to establish the number of school age children, or pupils, typically generated by new housing developments, across the authority.

Cognisant used residential planning application data supplied by Central Bedfordshire Council to identify properties completed between 2008 and 2014. This accounted for an estimated 7,313 dwellings across 981 sites. In order to achieve 1,150 completed interviews, 3,361 dwellings were selected at random.

Four fieldwork researchers conducted interviews across Central Bedfordshire during the period November 2014 to February 2015. The fieldwork researchers operated according to the Market Research Society Code of Conduct. Face-to-face interviews were conducted with residents who agreed to participate. A questionnaire, covering letter and reply-paid envelope were posted through the letterbox of addresses where residents were unavailable.

**Child Product Ratios**

Table 3 details the child product ratio (CPR) for the average newly built dwelling in Central Bedfordshire.

The CPR of 0.78 is the total product ratio for all children aged 0-18, this equates to a total average yield of 0.04 children per age group. This figure has a 95% Confidence Interval of ±0.02 which means that if the same study was undertaken 100 times, on 95 occasions the CPR value would be between 0.76 and 0.80.

Table 3 – Top Level CPR Statistics

| | Child Product Ratio (CPR) | |
|---|---|---|
| | Total CPR for 0-18 year olds | CPR by dwelling, by yeargroup |
| **Mean** | 0.78 | 0.043 |
| **Standard Error** | 2.55% | |
| **95% Confidence Interval** | ±0.02 | |
| | 0.76 | 0.42 |
| | 0.80 | 0.44 |

The data in Table 3 has been weighted to account for the impact of different rates of participation across dwelling size and households with and without children resident within the survey results.

## PPR by age and Dwelling Size

Where a respondent indicated that a child was resident, they were required to indicate the age of the child. Table 4 breaks down the child yield figures by age and size of dwelling. The shaded cells in table 4 are those which show a higher value then the average 0.04 pupil yield.

Table 4 – Age Product Ratio by Size

| No. of Bedrooms in Dwelling | 1 | 2 | 3 | +4 |
|---|---|---|---|---|
| **Age 0 Quantity** | 0.03 | 0.07 | 0.08 | 0.06 |
| **Age 1 Quantity** | 0.01 | 0.08 | 0.07 | 0.12 |
| **Age 2 Quantity** | 0.01 | 0.07 | 0.07 | 0.08 |
| **Age 3 Quantity** | 0.00 | 0.05 | 0.05 | 0.09 |
| **Age 4 Quantity** | 0.01 | 0.07 | 0.09 | 0.10 |
| **Age 5 Quantity** | 0.00 | 0.04 | 0.07 | 0.09 |
| **Age 6 Quantity** | 0.00 | 0.04 | 0.05 | 0.08 |
| **Age 7 Quantity** | 0.00 | 0.02 | 0.05 | 0.06 |
| **Age 8 Quantity** | 0.01 | 0.02 | 0.05 | 0.05 |
| **Age 9 Quantity** | 0.00 | 0.01 | 0.04 | 0.06 |
| **Age 10 Quantity** | 0.00 | 0.01 | 0.02 | 0.05 |
| **Age 11 Quantity** | 0.00 | 0.01 | 0.04 | 0.03 |
| **Age 12 Quantity** | 0.00 | 0.01 | 0.02 | 0.04 |
| **Age 13 Quantity** | 0.01 | 0.01 | 0.02 | 0.04 |
| **Age 14 Quantity** | 0.01 | 0.01 | 0.04 | 0.06 |
| **Age 15 Quantity** | 0.00 | 0.01 | 0.02 | 0.04 |
| **Age 16 Quantity** | 0.00 | 0.02 | 0.04 | 0.05 |
| **Age 17 Quantity** | 0.00 | 0.01 | 0.02 | 0.03 |
| **Age 18 Quantity** | 0.00 | 0.01 | 0.03 | 0.03 |
| **Age 19 Quantity** | 0.00 | 0.00 | 0.01 | 0.01 |

It is possible to see that new developments produce a significantly higher level of 0-10 year olds.

Figure 1 sets out the proportion of all children resident in new dwellings and that from the census, showing a clear trend for younger age children in new build dwellings than would normally be the case. Considering the ages of all the children identified in the new build study, there are clear differences between this community and those identified in the census at an authority wide level.

**Figure 1 – Age Distribution**
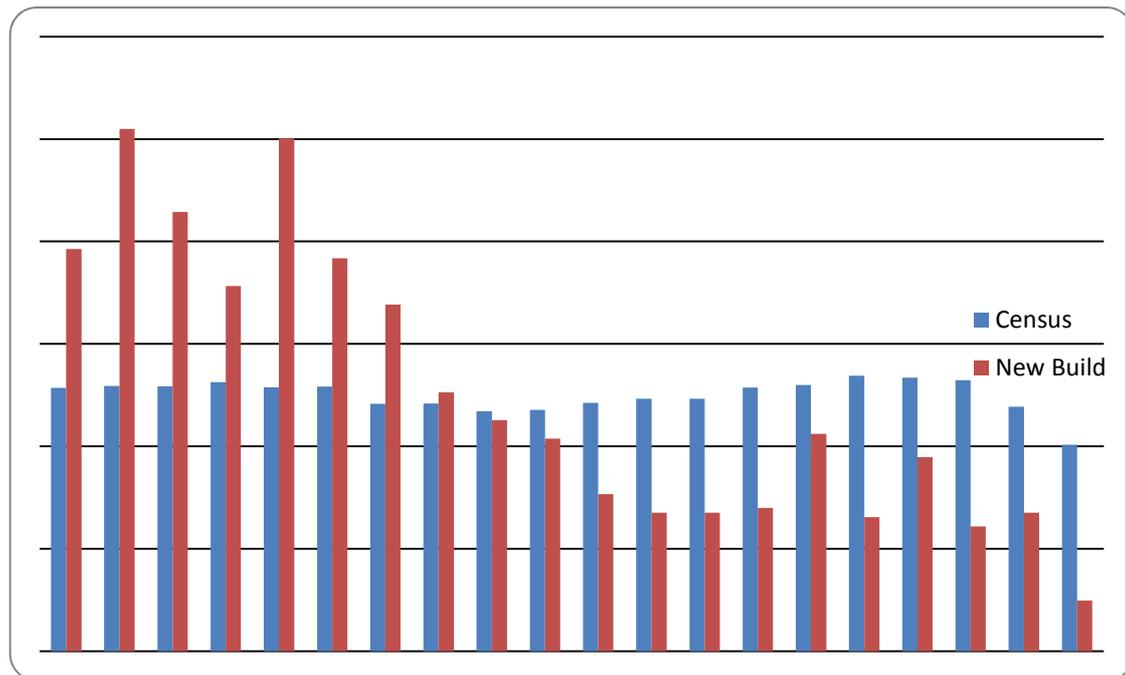


Cognisant conducted some further analysis to understand the population makeup of a development 4-5 years after completion. The following graph shows the age distribution of a development assessed in 2007 and again in 2011, compared with the national census.

**Figure 2 – Age Distribution after 4-5 years**
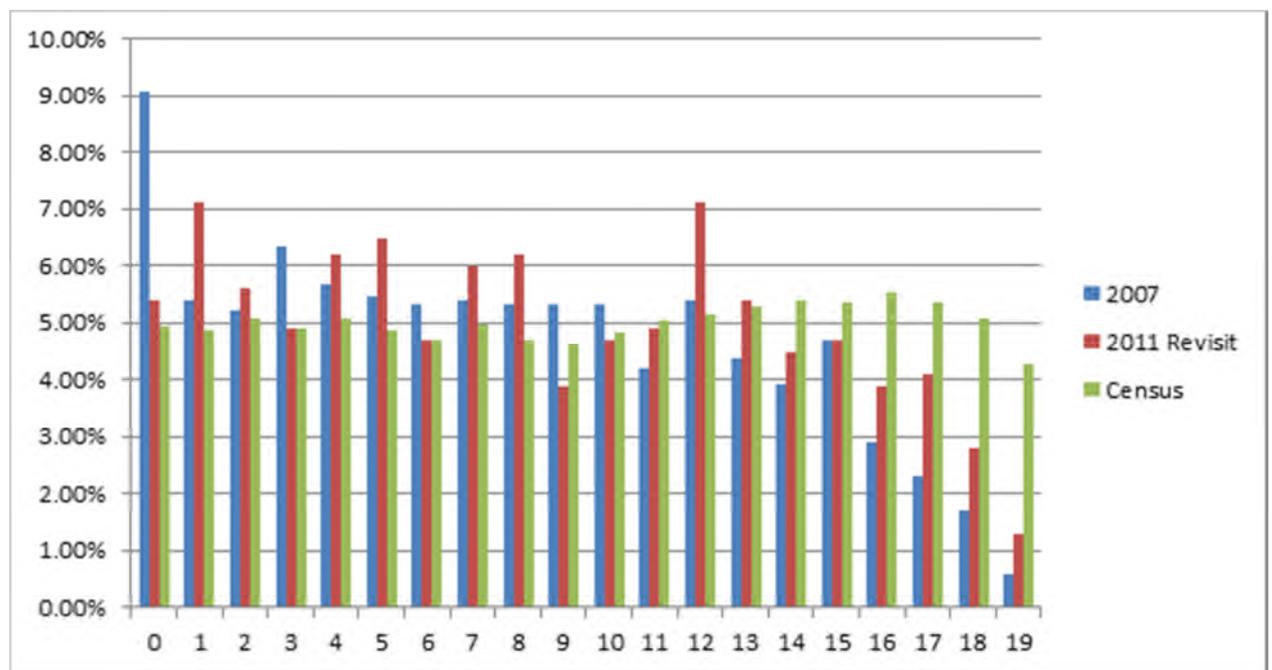


After this period of time the number of Pre-School aged children is still proportionally greater than normal and Primary numbers have remained

proportionately the same. However, the distribution in terms of ages has clearly changed and there is evidence of an aging population.