



The Longitudinal Study of Australian Children:

LSAC Technical paper No. 6

Wave 3 weighting and non-response

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Glossary of abbreviations

ABS	Australian Bureau of Statistics
CBC	Centre-Based Carer Questionnaire
ERP	Estimated Resident Population
HBC	Home-Based Carer Questionnaire
LSAC	Longitudinal Study of Australian Children
P1	Parent 1, the parent with whom the LSAC face-to-face interview is conducted, generally the child's mother
P2	Parent 2, the child's other parent who lives with Parent 1
P1D	Parent 1 During-Interview Questionnaire
P1L	Parent 1 Leave-Behind Questionnaire
P1SC	Parent 1 Self-Complete Questionnaire
P2SC	Parent 2 Self-Complete Questionnaire
PLE	Parent Living Elsewhere Questionnaire
Teach	Teacher Questionnaire
TUD	Time Use Diary

Introduction

This paper details the methodology used to calculate the weights for the Wave 3 responding sample of *Growing Up in Australia*, the Longitudinal Study of Australian Children (LSAC). It also provides information on the response to the main instruments used in the study: the face-to-face interview with Parent 1; the self-complete questionnaires completed by Parent 1, Parent 2, and the study child's teacher; the interview completed by the Parent Living Elsewhere; and the time use diaries.

The methodology for the Wave 3 weighting has been based on the approach taken in Waves 1 and 2. Summary details of this approach are provided below.

Wave 1

During 2004, the study recruited a nationally representative sample of 5,107 0-1 year olds (B-cohort) and 4,983 children aged 4-5 years (K-Cohort) selected from the Medicare Australia enrolments database.

A two-stage design was employed, first selecting postcodes then children, with children in both cohorts selected from the same postcodes. Stratification was used to ensure proportional geographic representation for states/territories and capital city statistical division ("met") /rest of state ("exmet") areas. Some remote postcodes were excluded from the design.

The method of postcode selection took into account the number of children in the postcode so all potential participants in the study Australia-wide ideally would have an approximately equal chance of selection (about one in 25).

Cluster size was determined by balancing statistical and fieldwork requirements. In the larger states, families of about 40 children per postcode were invited to participate, and in the smaller states and territories, families of about 20 children and families per postcode were invited, where postcodes had at least this many children. Different selection processes were used for postcodes with smaller numbers of children. Full details of the sample design and selection process are provided in LSAC Technical Paper No. 2 "Sample Design" (Soloff, Lawrence & Johnstone, 2005).

In reality, it was not possible to ensure that all children had an equal chance of selection, therefore weights were used to provide some measure of correction for the unequal probability of selection (as reflected in design weights). The weights on the Wave 1 data set also included an adjustment for the most important sources of non-response bias that could be identified: the mother's educational level, and the mother's use of a language other than English at home.

Two weights were included on the data file:

- A population weight that adjusted estimates of frequencies produced by the data to population totals (e.g. x number of children in Australia had characteristic y)
- A sample weight that adjusted estimates of percentages produced by the data to the proportions given when using the population weight, but kept the frequency estimates reflective of the number of children in the sample (e.g. x number of children in the

LSAC sample had characteristic y). This second weight should be used when tests of significance are to be generated.

While it would have been possible to provide separate weights to adjust for non-response to other instruments apart from the main interview (e.g. to adjust for non-response bias in estimates produced by the Parent 1 Self-Complete Questionnaire), this was not attempted.

For more information on the calculation of weights in Wave 1, interested readers are referred to LSAC Technical Paper No. 3 “Wave 1 Weighting and Non-response” (Soloff, Lawrence, Misson & Johnstone, 2006).

Wave 2

Wave 2 weights were calculated by:

- Performing a logistic regression to estimate the probability of each family from Wave 1 completing the interview in Wave 2.
- Dividing each case’s Wave 1 weight by this probability for all cases that had responded to Wave 2 (so that high probability cases have relatively lower weight and low probability cases have relatively higher weight) then re-adjusting so that the average sample weight was 1.
- Adjusting total weights for each strata so that the proportion for each selection stratum is the same as it was following Wave 1 weighting.
- Top and bottom coding extreme weights and recalibrating stratum to have correct proportions. All weights below 0.33 were bottom coded to 0.33 and all weights above 2.5 were top-coded to 2.5 to prevent cases having either too great or too small an influence over estimates.
- Adjusting all weights so that average values are appropriate, i.e. mean value of 1 for the sample weights, mean value of (population size/sample size) for population weights.

This approach to adjusting initial weights for non-response using logistic regression is similar to those used in other longitudinal studies such as the Household Income and Labour Dynamics in Australia Survey (Watson, 2004), the Panel Study of Income Dynamics in the US (Gouskova, 2001), and to a slightly lesser extent the National Longitudinal Study of Children and Youth in Canada (Statistics Canada, 2006).

General approach to Wave 3 weighting

For weighting at Wave 3, it was necessary to produce longitudinal as well as cross-sectional weights for the first time. Cross-sectional weights adjust the sample attained at Wave 3 to be representative of the population at the time of selection, while longitudinal weights do the same for the sample that has responded to all 3 waves of the survey. At Wave 3 the difference between the two samples is small (about 3 per cent of the Wave 3 sample did not respond in Wave 2), however the difference will become larger as further waves proceed.

The weights were calculated by adjusting the Wave 2 weights for the probability of non-response in Wave 3 in much the same way as Wave 1 weights were adjusted to make the Wave 2 weights. The process was as follows:

- Perform a logistic regression to estimate the probability of each family from Wave 2 completing the interview in Wave 3.
- Perform a logistic regression to estimate the probability of each family from Wave 1 completing the interview in Wave 3.
- For the longitudinal weight, divide each case's Wave 2 weight by the probability of Wave 3 response, given a response in Wave 2, for all cases that had responded to Wave 3 (so that high probability cases have relatively lower weight and low probability cases have relatively higher weight) and re-adjust so the average sample weight is 1.
- For the cross sectional weight, if the family responded to Wave 2, divide each case's Wave 2 weight by the probability of Wave 3 response, given a response in Wave 2. If the family did not respond to Wave 2, divide each case's Wave 1 weight by the probability of Wave 3 response, given a response at Wave 1, and re-adjust so they average sample weight is 1¹.
- Adjust total weights for each strata so that the proportion for each selection stratum is the same as it was following Wave 1 weighting.
- (If necessary) Top and bottom code extreme weights and recalibrate stratum to have correct proportions.
- Adjust all weights so that average values are appropriate, i.e. mean value of 1 for the sample weights, mean value of (population size/sample size) for population weights.

¹ Note that although the process is identical for the cross-sectional and longitudinal weights for Wave 2 respondents, weights for each case are relative to the rest of the sample. So the Wave 3 cross-sectional weights will be different from the longitudinal weights due the presence of Wave 2 non-respondents in the Wave 3 sample.

Estimating Wave 3 response probabilities

The first step in determining the Wave 3 weights involved identifying variables that may predict non-response, to include in the logistic regression. These variables were chosen on the basis of the following criteria:

- 1) **Little missing data.** Logistic regression can only be used for variables with no missing data, hence any missing data has to be imputed. If a large amount of data is missing, then this imputation will introduce further sources of error.
- 2) **Likelihood of explanation of non-response.** In Wave 1 response rate was shown to be strongly related to social class and cultural background (Soloff et al., 2005). Other factors which might predict non-response include those that predict whether a child is likely to move home (e.g. housing tenure) and those that show dedication to the study (e.g. completion of self-complete questionnaires). Preference was given to variables likely to persist over time, meaning they would still be relevant and influential at subsequent waves.
- 3) **Coverage of topics included in the survey.** To ensure the results of the study across topics are reliable, it is important that response bias be tested for and corrected in the major areas covered by the study. This means that a mix of variables from the main topic areas of the study (i.e. family functioning, child functioning, sociodemographics, education, childcare and health) were included.

Appendix A shows the descriptive statistics of those variables chosen. Missing values were replaced with median values (or modal values for categorical variables).

Wave 3 response given Wave 1 (B cohort)

Table 1 shows the results of the logistic regression results predicting Wave 3 response given a response to Wave 1 for the B cohort. The final model achieved an R-square of .012, and a max-rescaled R-square of .214. While some of the unexplained variance is likely to be due to factors intervening in the four years between Waves, low R-square can be indicative of data missing at random. Higher R-square would be a troubling indication of bias. Response was more likely to occur where:

- Parent 1 or Parent 2 self-complete questionnaire was returned;
- Parent 1 was older;
- Parent 1 was born in Australia;
- the study child was not Indigenous;
- Parent 1 had completed year 12;
- Parent 1 regularly attends a religious service;
- the family had a higher rating of prosperity;
- the family lived in a home or longer;
- the home is being paid off;
- more residents in the postcode are living in advantaged neighbourhoods;
- fewer people in the postcode were Indigenous;
- more residents of the postcode had completed year 12; and
- more residents of the postcode were born in Australia.

Table 1. Results of regression modelling Wave 3 response for Wave 1 respondents for the B-cohort

Wave 1 characteristic	Odds Ratio	95% Wald	
		Confidence Limits	
Parent 1 Self-complete returned	1.471*	1.079	2.007
Time-Use Diary returned	1.93*	1.469	2.535
Parent 2 Self-complete returned	1.437*	1.086	1.902
Parent 2 present	0.931	0.646	1.34
Parent 1 male	0.631	0.32	1.247
Parent 1 age	1.227*	1.101	1.368
Parent 1 born overseas	0.707*	0.538	0.93
Parent 1 speaks only English at home	1.45	0.987	2.132
Study Child Indigenous	0.646*	0.458	0.91
Study Child weight at birth	1.07	0.979	1.17
Study Child multiple birth	1.345	0.754	2.402
Parent 1 rating of Study Child health	1.016	0.929	1.112
Special Health Care needs	1.019	0.706	1.471
Parent rating of own sleep quality	0.959	0.877	1.048
Study Child attends child care	0.984	0.793	1.22
Parent 1 has children living elsewhere	0.94	0.687	1.284
Parent 1 rating of parent self-efficacy	1.063	0.967	1.169
Parent 1 self-efficacy scale	0.993	0.901	1.095
Parent 1 parental warmth scale	0.919	0.833	1.014
Parent 1 hostile parenting scale	1.044	0.954	1.142
<i>School completion</i>			
Year 11 v Year 12	0.792*	0.6	1.045
Year 10 v Year 12	0.733*	0.576	0.932
Year 9 or below/still at school v Year 12	0.729*	0.516	1.03
Parent 1 has bachelor degree	1.028	0.802	1.318
Parent 1 currently studying	0.965	0.714	1.303
Parent 1 first language was English	1.211	0.811	1.808
Parent 1 has a parent that was born overseas	0.884	0.707	1.104
Parent 1 regularly attends religious services	1.272*	1.004	1.61
<i>Parent 1 work status</i>			
Part-time work v full-time work	1.018	0.725	1.429
Maternity leave v full-time work	1.336	0.828	2.155
Unemployed v full-time work	0.827	0.492	1.39
Not in the labour force v full-time work	0.918	0.652	1.293
Highest occupational prestige rating of parent	0.951	0.858	1.054
Parent receives income from wages	1.259	0.965	1.641
Parent receives income from profit from business	1.043	0.789	1.38
Parent receives income from rent	1.327	0.894	1.971
Parent receives income from dividends or interest	1.128	0.829	1.534
Parent receives income from Government pension/allowance	0.98	0.774	1.241
Log combined parental income	1.067	0.968	1.175

Wave 1 characteristic	Odds Ratio	95% Wald Confidence Limits	
Rating of family prosperity	1.134*	1.027	1.252
Family hardship scale	0.914	0.832	1.003
Length of time in lived in current home	1.178*	1.049	1.324
Number of homes Study Child has lived in since birth	0.992	0.911	1.08
<i>Housing tenure</i>			
Owned outright v being paid off	0.786*	0.531	1.163
Rented v being paid off	0.701*	0.562	0.875
Other v being paid off	0.796*	0.541	1.171
Neighbourhood livability	0.944	0.861	1.035
Neighbourhood facilities	1.062	0.961	1.175
Number of people living in household	1.026	0.892	1.181
Number of siblings living with Study Child	0.943	0.81	1.098
SEIFA disadvantage/advantage	0.772*	0.614	0.969
Proportion of residents of postcode aged 0 to 4	0.974	0.857	1.106
Proportion of residents of postcode of Indigenous background	0.872*	0.796	0.956
Proportion of residents of postcode completed year 12	1.299*	1.026	1.645
Proportion of residents of postcode employed	1.16	0.979	1.375
Proportion of residents of postcode in families with incomes higher than \$1,000/week	1.123	0.884	1.428
Proportion of residents of postcode speak only English at home	0.94	0.794	1.114
Proportion of residents of postcode born in Australia	1.276*	1.05	1.551

* p < .05

Note:

(a) For dichotomous variables the odds ratio represents the ratio of probabilities of a change from 'no' to 'yes'. For example, if Parent 1 returned a self-complete questionnaire, the family was 1.85 times more likely to respond to Wave 2 when adjusting for all other factors entered into the equation.

(b) For continuous variables the odds ratio represents a change from the mean value to one standard deviation above the mean.

(c) An odds ratio of 1 effectively means that the predictor is having no effect on the outcome, so if the upper and lower band of the confidence intervals are either both higher or both lower than 1, the predictor can be said to be significant at the .05 level.

Wave 3 response given Wave 2 (B cohort)

Table 2 shows the results of the logistic regression predicting Wave 3 response given a response to Wave 2 for the B cohort. The final model achieved an R-square of .09, and a max-rescaled R-square of .214.

Response was more likely to occur where:

- a Parent 1 self-complete questionnaire was returned;
- there was a Parent 2;
- Parent 1 was older;
- Parent 1 was born in Australia;
- the study child was non-Indigenous; and
- study child participated in more out of home activities.

Table 2. Results of regression modelling Wave 3 response for Wave 2 respondents for the B-cohort

Wave 2 characteristic	Odds Ratio	95% Wald Confidence Limits	
Parent 1 Self-complete returned	2.078*	1.003	4.307
Time-Use Diary returned	1.562	0.767	3.18
Parent 2 Self-complete returned	1.55	0.978	2.455
Parent 2 present	1.759*	1.142	2.709
Parent 1 male	0.477	0.237	0.962
Parent 1 age	1.172*	1.032	1.331
Parent 1 born overseas	0.609*	0.419	0.885
Parent 1 speaks only English at home	1.565	0.91	2.69
Study Child Indigenous	0.581*	0.367	0.92
Study Child weight at birth	0.981	0.868	1.109
Study Child multiple birth	1.288	0.583	2.845
Parent 1 rating of Study Child health	1.024	0.903	1.161
Number of serves of fruit and vegetables	0.956	0.845	1.08
Special Health Care needs	1.011	0.683	1.497
Study Child attends child care other than main school/pre-school or day care	1.218	0.917	1.617
Parent 1's rating of own sleep quality	1.123	0.989	1.275
Home activities index	0.933	0.819	1.063
Out of home activities index	1.183*	1.037	1.351
Amount of TV watched by SC each week	0.898	0.8	1.009
Parent 1 rating of parent self-efficacy	1.071	0.948	1.211
Parent 1 parental warmth scale	1.093	0.952	1.254
Parent 1 inductive reasoning scale	0.996	0.87	1.14
Parent 1 hostile parenting scale	1.074	0.922	1.251
Parent 1 BITSEA Problems	0.958	0.843	1.088
Parent 1 BITSEA Competencies	1.072	0.943	1.218
P1 K6	1.069	0.952	1.2

Wave 2 characteristic	Odds Ratio	95% Wald Confidence Limits		
<i>Parent 1 School completion</i>				
Year 11 v Year 12	0.75	0.514	1.095	
Year 10 v Year 12	0.752	0.543	1.042	
Year 9 or below/still at school v Year 12	1.051	0.634	1.743	
Parent 1 has bachelor degree	0.926	0.661	1.298	
Parent 1 currently studying	1.06	0.727	1.546	
Parent 1 first language was English	1.022	0.589	1.771	
Parent 1 has a parent that was born overseas	0.903	0.664	1.227	
<i>Parent 1 work status</i>				
Part-time work v full-time work	1.231	0.845	1.794	
Maternity leave v full-time work	0.705	0.343	1.45	
Unemployed v full-time work	1.408	0.681	2.909	
Not in the labour force v full-time work	0.903	0.604	1.35	
Highest occupational prestige rating of parent	0.958	0.835	1.098	
Parent receives income from wages	0.943	0.64	1.389	
Parent receives income from profit from business	1.007	0.681	1.488	
Parent receives income from Government pension/allowance	0.994	0.712	1.387	
Log household income	1.099	0.963	1.254	
Rating of family prosperity	1.087	0.955	1.238	
Family hardship scale	0.968	0.872	1.076	
Length of time lived in current home	0.997	0.843	1.179	
Number of homes Study Child has lived in since birth	1.063	0.903	1.252	
<i>Housing tenure</i>				
Owned outright v being paid off	0.965	0.596	1.562	
Rented v being paid off	0.731	0.536	0.997	
Other v being paid off	0.823	0.455	1.487	
BMI z-score	1.05	0.95	1.16	
Number of people living in household	0.994	0.808	1.223	
Number of siblings living with Study Child	1.044	0.85	1.283	
SEIFA disadvantage/advantage	1.119	0.808	1.55	
Proportion of residents of postcode aged 0 to 4	1.074	0.913	1.263	
Proportion of residents of postcode of Indigenous background	0.959	0.842	1.093	
Proportion of residents of postcode completed Year 12	0.943	0.709	1.254	
Proportion of residents of postcode employed	1.247	0.962	1.617	
Proportion of residents of postcode in families with incomes higher than \$1,000/week	1.302	0.873	1.943	
Proportion of residents of postcode speak only English at home	1.02	0.786	1.325	
Proportion of residents of postcode born in Australia	0.869	0.667	1.133	

Wave 3 response given Wave 1 (K cohort)

Table 3 shows the results of the logistic regression predicting Wave 3 response given a response to Wave 1 for the K-cohort. The final model achieved an R-square of .12, and a max-rescaled R-square of .22.

Response was more likely to occur where:

- a Parent 2 self-complete questionnaire was returned;
- Parent 1 was female;
- Parent 1 is older;
- the study child is not Indigenous;
- Parent 1 employed more consistent parenting;
- Parent 1 has a bachelor degree; and
- Parent 1 receives dividends or interest;

Table 3. Results of regression modelling Wave 3 response for Wave 1 respondents for the K-cohort

Wave 1 characteristic	Odds Ratio	95% Wald Confidence Limits	
Parent 1 Self-complete returned	1.229	0.913	1.653
Time-Use Diary returned	2.143*	1.653	2.779
Parent 2 Self-complete returned	1.685*	1.262	2.25
Parent 2 present	0.922	0.636	1.336
Parent 1 male	0.613*	0.378	0.991
Parent 1 age	1.141*	1.032	1.261
Parent 1 born overseas	0.761	0.564	1.027
Parent 1 speaks only English at home	1.742*	1.18	2.571
Study Child Indigenous	0.543*	0.367	0.804
Study Child weight at birth	0.964	0.878	1.059
Study Child multiple birth	0.851	0.48	1.509
Parent 1 rating of Study Child health	0.96	0.872	1.057
Number of serves of fruit and vegetables	0.946	0.862	1.039
Special Health Care needs	0.972	0.734	1.286
Parental impact (of worry over child) scale	1.034	0.935	1.144
Study child's enjoyment of physical activity	0.94	0.856	1.032
Study Child attends child care other than main school/pre-school/daycare	1.062	0.864	1.306
Hours in main school, pre-school or day care	0.971	0.883	1.067
Home activities index	0.936	0.848	1.032
Out of home activities index	0.961	0.871	1.062
Parent 1 has children living elsewhere	1.126	0.833	1.523
Parent 1 rating of parent self-efficacy	0.927	0.843	1.02
Parent 1 parental warmth scale	0.984	0.882	1.097
Parent 1 inductive reasoning scale	0.999	0.901	1.108
Parent 1 angry parenting scale	1	0.897	1.114
Parent 1 consistent parenting scale	1.13*	1.026	1.244

Wave 1 characteristic	Odds Ratio	95% Wald Confidence Limits	
Parent 1 SDQ prosocial	1	0.901	1.111
Parent 1 SDQ hyperactivity	0.946	0.847	1.057
Parent 1 SDQ emotional symptoms	0.993	0.9	1.096
Parent 1 SDQ conduct problems	1.04	0.928	1.167
Parent 1 SDQ peer problems	0.953	0.86	1.055
<i>School completion</i>			
Year 11 v Year 12	0.904	0.681	1.2
Year 10 v Year 12	0.734	0.574	0.939
Year 9 or below/still at school v Year 12	0.481	0.349	0.662
Parent 1 has bachelor degree	1.545*	1.164	2.051
Parent 1 currently studying	1.106	0.84	1.454
Parent 1 first language was English	0.905	0.603	1.36
Parent 1 has a parent that was born overseas	1.11	0.868	1.419
Parent 1 regularly attends religious services	0.907	0.719	1.146
<i>Parent 1 work status</i>			
Part-time work v full-time work	1.004	0.757	1.334
Unemployed v full-time work	0.774	0.486	1.233
Not in the labour force v full-time work	0.935	0.691	1.266
Highest occupational prestige rating of parent	0.999	0.896	1.114
Parent receives income from wages	1.293	0.98	1.706
Parent receives income from profit from business	1.313	0.98	1.759
Parent receives income from rent	0.784	0.544	1.132
Parent receives income from dividends or interest	1.614*	1.161	2.244
Parent receives income from Government pension/allowance	1.145	0.887	1.477
Log combined parental income	1.035	0.926	1.157
Rating of family prosperity	1.032	0.928	1.147
Family hardship scale	0.917	0.832	1.012
Length of time in lived in current home	1.121	0.98	1.283
Number of homes Study Child has lived in since birth	0.98	0.864	1.112
<i>Housing tenure</i>			
Owned outright v being paid off	0.864	0.608	1.229
Rented v being paid off	0.818	0.65	1.031
Other v being paid off	0.926	0.571	1.501
Neighbourhood livability	0.946	0.857	1.045
Neighbourhood facilities	1.062	0.954	1.181
Who Am I? test	1.082	0.982	1.192
Number of people living in household	0.969	0.813	1.155
Number of siblings living with Study Child	1.033	0.87	1.226
SEIFA disadvantage/advantage	0.873	0.691	1.102
Proportion of residents of postcode aged 0 to 4	0.819*	0.72	0.931
Proportion of residents of postcode of Indigenous background	1.056	0.945	1.181

Wave 1 characteristic	Odds Ratio	95% Wald Confidence Limits	
Proportion of residents of postcode completed Year 12	0.83	0.647	1.065
Proportion of residents of postcode employed	0.981	0.825	1.167
Proportion of residents of postcode in families with incomes higher than \$1,000/week	0.791	0.615	1.016
Proportion of residents of postcode speak only English at home	1.046	0.881	1.243
Proportion of residents of postcode born in Australia	0.984	0.805	1.203

*p<.05

Wave 3 response given Wave 2 (K cohort)

Table 4 shows the results of the logistic regression predicting Wave 3 response given a response to Wave 2 for the K-cohort. The final model achieved an R-square of .12, and a max-rescaled R-square of .22.

Response was more likely to occur where:

- a Parent 1 self-complete or Parent 2 self -complete questionnaire was returned;
- Parent 1 was older;
- Parent 1 speaks only English at home;
- the parents participated less in home activities with their child (e.g. reading stories, involving the child in chores);
- Parent reported a more angry parenting style;
- Parent 1 reported fewer mental health problems on the K-6 scale; and
- Parent 1 had a bachelor degree or had completed Year 12 at high school (relative to those that did not finish Year 10).

Table 4. Results of regression modelling Wave 3 response for Wave 2 respondents for the K-cohort

Wave 2 characteristic	Odds Ratio	95% Wald Confidence Limits	
Parent 1 Self-complete returned	2.291*	1.102	4.762
Time-Use Diary returned	1.143	0.553	2.363
Parent 2 Self-complete returned	1.846*	1.133	3.008
Parent 2 present	1.032	0.625	1.704
Parent 1 male	0.562	0.305	1.035
Parent 1 age	1.16*	1.007	1.335
Parent 1 born overseas	0.681	0.436	1.064
Parent 1 speaks only English at home	2.16*	1.189	3.924
Study Child Indigenous	0.348	0.207	0.585
Study Child weight at birth	0.922	0.797	1.066
Study Child multiple birth	0.762	0.328	1.771
Parent 1 rating of Study Child health	1.082	0.938	1.248

Wave 2 characteristic	Odds Ratio	95% Wald Confidence Limits	
Number of serves of fruit and vegetables	1.024	0.891	1.176
Special Health Care needs	0.77	0.518	1.145
Parent 1's rating of own sleep quality	1.037	0.901	1.193
Gross motor coordination scale	1.061	0.928	1.213
Study Child attends child care other than main school/pre-school or day care	1.039	0.743	1.454
<i>School Grade</i>			
Grade 1 v Other	1.615	0.925	2.819
Grade 2 v Other	1.23	0.678	2.232
<i>School type</i>			
Catholic v Government	0.809	0.564	1.16
Independent v Government	0.851	0.512	1.417
Not in school v Government	0.63	0.067	5.965
Parent 1's education expectation for child	1.071	0.93	1.233
School social capital scale	1.04	0.904	1.196
Home activities index	0.844*	0.733	0.973
Out of home activities index	1.06	0.91	1.234
Amount of TV watched by SC each week	1.059	0.921	1.216
Parent 1 rating of parent self-efficacy	1.043	0.903	1.204
Parent 1 parental warmth scale	1.125	0.955	1.325
Parent 1 inductive reasoning scale	0.92	0.788	1.074
Parent 1 angry parenting scale	1.209*	1.016	1.44
Parent 1 consistent parenting scale	1.096	0.944	1.271
Parent 1 hostile parenting scale	0.942	0.786	1.128
Parent 1 SDQ prosocial	1.023	0.881	1.189
Parent 1 SDQ hyperactivity	0.96	0.812	1.135
Parent 1 SDQ emotional symptoms	0.89	0.767	1.033
Parent 1 consistent parenting scale	1.149	0.963	1.37
Parent 1 SDQ peer problems	0.915	0.787	1.063
P1 K6	0.858*	0.744	0.989
<i>School completion</i>			
Year 11 v Year 12	0.814*	0.531	1.25
Year 10 v Year 12	0.627*	0.435	0.906
Year 9 or below/still at school v Year 12	0.419*	0.262	0.671
Parent 1 has bachelor degree	1.533*	1.008	2.331
Parent 1 currently studying	0.832	0.576	1.201
Parent 1 first language was English	0.946	0.509	1.759
Parent 1 has a parent that was born overseas	1.046	0.718	1.525
Part-time work v full-time work	1.146	0.771	1.702
Maternity leave v full-time work	2.292	0.293	17.95
Unemployed v full-time work	0.682	0.323	1.44
Not in the labour force v full-time work	0.995	0.625	1.584
Highest occupational prestige rating of parent	1.056	0.901	1.237

Wave 2 characteristic	Odds Ratio	95% Wald Confidence Limits	
Parent receives income from wages	0.884	0.563	1.39
Parent receives income from profit from business	1.419	0.899	2.239
Parent receives income from Government pension/allowance	1.114	0.76	1.632
Log household income	1.093	0.911	1.312
Rating of family prosperity	1.047	0.901	1.218
Family hardship scale	0.98	0.867	1.108
Length of time lived in current home	1.034	0.826	1.294
Number of homes Study Child has lived in since birth	0.975	0.783	1.215
<i>Housing tenure</i>			
Owned outright v being paid off	1.46	0.801	2.662
Rented v being paid off	0.757	0.535	1.071
Other v being paid off	0.867	0.419	1.793
BMI z-score	1.09	0.954	1.246
PPVT	1.075	0.927	1.247
Matrix Reasoning	0.989	0.853	1.146
Child self- report of school adjustment	0.956	0.832	1.099
Number of people living in household	1.271	0.944	1.713
Number of siblings living with Study Child	0.811	0.611	1.077
SEIFA disadvantage/advantage	1.021	0.7	1.49
Proportion of residents of postcode aged 0 to 4	0.894	0.75	1.067
Proportion of residents of postcode of Indigenous background	1.071	0.913	1.256
Proportion of residents of postcode completed Year 12	0.871	0.626	1.213
Proportion of residents of postcode employed	1.157	0.847	1.579
Proportion of residents of postcode in families with incomes higher than \$1,000/week	1.091	0.688	1.731
Proportion of residents of postcode speak only English at home	1.193	0.909	1.566
Proportion of residents of postcode born in Australia	0.9	0.68	1.19

Calculating Wave 3 weights

The probability estimates obtained through the logistic regression process (as shown in Tables 1-4) were used to adjust the existing weights to create longitudinal and cross-sectional weights, using the process outlined on page 7. At this point the average longitudinal weight of responding cases for the B-cohort was 1.06 and for the K-cohort it was 1.09. The average cross-sectional weight was 1.10 for the B-cohort and 1.07 for the K-cohort. Accordingly, all weights were divided by these figures to prevent the weights artificially inflating the sample size.

The weights were then readjusted so that the state by gender by met/xmet totals were calibrated to the population benchmarks used for the Wave 1 weights. These benchmarks were calculated from the ABS Estimated Resident Population for March 2004, with proportions for part of state from the June 2003 ERP. The number of out-of scope children was calculated using the Medicare Australia sampling frame. The adjustment factors were calculated as the proportion obtained from the sample using the adjusted weights multiplied by the benchmark proportion. For example, if x% of children in the benchmark population were males resident in Brisbane, but when the adjusted weight was applied to the Wave 3 cross-sectional sample the proportion became y%, then to accurately maintain the benchmark proportions, the weight for each male case selected from the Brisbane stratum was multiple by x%/y%.

The multiplication factors for all the strata for both cohorts can be seen in Table 5.

Table 5. Adjustment factors for strata totals

	B Cohort				K Cohort			
	Met		Xmet		Met		Xmet	
	Male	Female	Male	Female	Male	Female	Male	Female
Cross Sectional								
NSW	0.93	0.98	1.15	1.14	1.01	1.10	0.89	0.90
VIC	0.91	0.95	1.09	1.03	1.05	0.99	0.98	0.94
QLD	1.02	1.04	1.08	1.03	1.07	1.01	0.93	0.95
SA	0.96	0.92	1.02	1.11	0.97	1.00	0.90	0.99
WA	1.01	0.96	1.14	1.10	1.03	1.07	0.98	0.92
TAS	0.95	0.85	1.02	0.98	1.08	1.13	1.03	0.95
NT	0.88	0.89	1.13	0.85	1.22	1.19	0.91	1.35
ACT	0.83	0.94			1.06	1.03		
Longitudinal								
NSW	0.97	1.03	1.03	1.01	1.03	1.10	0.88	0.88
VIC	0.98	1.02	1.06	0.98	1.07	1.03	0.99	0.94
QLD	0.97	0.99	1.01	0.98	1.05	1.00	0.92	0.95
SA	1.04	1.04	0.96	1.03	0.95	0.98	0.95	1.05
WA	1.01	0.95	1.05	1.01	1.05	1.03	0.96	0.88
TAS	1.03	0.87	0.91	0.98	1.05	1.09	0.98	0.92
NT	1.06	0.99	1.17	1.05	1.20	1.20	0.92	1.29
ACT	0.91	0.99			1.02	1.03		

For the B cohort, the above adjustments resulted in a weighting variable with a range of 0.24 to 7.68 for the cross sectional population and from 0.24 to 7.64 for the longitudinal population. It was decided to bottom code any weight below 0.33 and top code any weight above 2.5 so that no case would have too little or too much influence on any analysis.

The bottom-coding affected 0.9% of cases for the cross sectional population and 0.9% of cases for the longitudinal population, while the top-coding affected 1.7% of cases for the cross sectional population and 1.7% of cases for the longitudinal population.

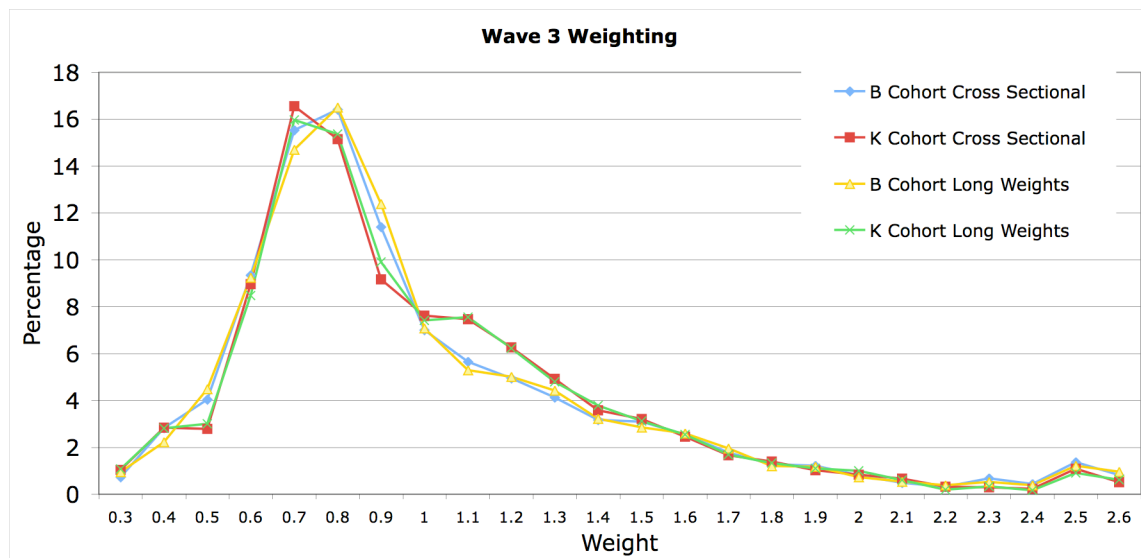
The average weight was adjusted slightly down by this process to .982 for the cross sectional population and .983 for the longitudinal population. This was subsequently re-corrected to make the average weight 1. The final distribution of weights can be seen in Figure 1.

For the K cohort, the above adjustments resulted in a weighting variable with a range of 0.08 to 6.9 for the cross sectional population and from 0.08 to 6.1 for the longitudinal population. It was decided to bottom code any weight below 0.33 and top code any weight above 2.5 so that no case would have too little or too much influence on any analysis.

The bottom-coding affected 0.8% of cases for the cross sectional population and 0.8% of cases for the longitudinal population, while the top-coding affected 1.4% of cases for the cross sectional population and 1.3% of cases for the longitudinal population.

The average weight was adjusted slightly down by this process to .990 for the cross sectional population and .991 for the longitudinal population, and this was subsequently re-corrected to make the average weight 1. The final distribution of weights can be seen in Figure 1.

Figure 1. Distribution of final weights



Non-response to instruments

Table 6 shows the response rates for the various Wave 2 and 3 instruments for the relevant wave and as a proportion of the Wave 1 interviewed sample, where appropriate.

Table 6. Non-response to instruments

	Eligible (a)	Responding	% Wave 1	Response rate (%) (b)
B-cohort				
Wave 2 (Issued sample=5045)				
Interview	4606	4606	90.2	100.0
P1D	4606	4504	88.2	97.8
P1L	4606	3536	69.2	76.8
P2SC	4099	3128	na	76.3
PLE	400	96	na	24.0
HBC	767	533	na	69.5
CBC	1713	1143	na	66.7
TUD	4606	3512	68.8	76.2
Wave 3 (Issued sample=4969)				
Interview	4386	4386	85.9	100.0
P1D	4386	3831	75.0	87.3
P2SC	3900	2753	na	70.6
PLE	409	272	na	66.5
Teach	4114	3395	na	82.5
TUD	4386	2964	58.0	67.6
K-cohort				
Wave 2 (Issued sample=4915)				
Interview	4464	4464	89.6	100.0
P1D	4464	4358	87.5	97.6
P1L	4464	3495	70.1	78.3
P2SC	3804	2949	na	77.5
PLE	612	199	na	32.5
Teach	4447	3632	na	81.7
TUD	4464	3487	70.0	78.1
Wave 3 (Issued sample=4831)				
Interview	4331	4331	86.9	100.0
P1D	4331	3807	76.4	87.9
P2SC	3707	2680	53.8	72.3
PLE	606	403	na	66.5
Teach	4275	3643	na	85.2
TUD	4331	2975	59.7	68.7

na – Not appropriate to compare with Wave 1; (a) The number of cases where the study child had a Parent 1, Parent 2, PLE seen at least once a year, teacher, or (Wave 2 B only) at least 8 hours a week of childcare; (b) The number of instruments that were returned divided by the number of possible cases expressed as a percentage.

Note: P1D - Parent 1 During-Interview Questionnaire; P1L - Parent 1 Leave-Behind Questionnaire; P2SC - Parent 2 Self-Complete Questionnaire; PLE - Parent Living Elsewhere Questionnaire; Teach - Teacher Questionnaire; TUD - Time Use Diary

Parent 1 self-complete forms

In Wave 2, the Parent 1 self-complete questions were split across 2 forms: one that “had” to be completed while the interviewer was in the home (P1D) and the other to be ideally also completed while the interviewer was in the home, but could be left behind (P1L). The relatively poor response to the P1L form (77-78% of the interviewed sample) led to a slightly smaller set of self-complete questions being combined into one form for Wave 3, and a request for this to be completed while the interviewer was in the home. The response rate did increase to 88-89% for Wave 3.

Parent 2 self-complete forms

The response rate in Wave 3 (71-72%) was lower than for Wave 2 (76%). This may have been due to the higher proportion of Parent 1 forms being done “in the home” (if Parent 1 did not need to return a form, there may have been less incentive for Parent 2 to return the form) or respondent fatigue issues.

Teacher self-complete forms

The teacher forms continue to achieve good response rates (over 80%). These forms are sent to the school principal to pass to the teacher. Much of the non-response is due to either these forms not being passed to the teacher, or children changing schools.

Parent Living Elsewhere (PLE) instrument

Due to the poor response in Wave 2 to the mail-out questionnaire, a change in methodology was introduced in Wave 3. Where Parent 1 provided contact details, the PLEs were telephoned by interviewers and asked to complete a computer assisted telephone interview.

The response from PLEs was very positive. Most of the non-response was due to Parent 1 not providing the contact information, or the contact information not being adequate. (Of the 856 PLEs that interviewers attempted to contact, only 53 (6%) refused.)

Instrument response rate by characteristics of families

Based on Wave 1 characteristics, the response rates to the other instruments in Wave 3 were only marginally different from the full responding sample for most of the subpopulations. Larger differences in response rates are described below.

B cohort (Table 7)

The following differences in response were observed:

- The Indigenous children were under-represented across all forms, with their response rate 10-28% lower than the non-Indigenous
- There were lower response rates for both the Parent 1 and Parent 2 forms if Parent 1 spoke a language other than English at home: these forms had a response rate 10% lower than the full sample.

- When Parent 1 had an income of at least \$1000 pw, the PLE was more likely to take part in an interview (response rate of 66%) than when the Parent 1 had an income below \$1000 per week (response rate 40%).
- Similarly, if Parent 1 was employed the PLE was more likely to take part in an interview (response rate 55%) than if Parent 1 was not employed (response rate 40%)
- The highest response rate for the P1 form was in Tasmania (93%) and the lowest was in New South Wales and Western Australia (85%).
- Tasmania had the highest response rate to the P2 form (81%), while Victoria had the lowest (68%).
- Teachers in Tasmania had the highest response rate to their questionnaire (89%) and teachers in the Northern Territory had the lowest response rate (78%)

K cohort (Table 8)

The following differences in response were observed:

- The Indigenous children are under-represented across all forms, with a response rate 8-29% lower than the non-Indigenous sample.
- There were lower response rates for Parent 1, Parent 2 and PLE forms if Parent 1 spoke a language other than English at home; these forms had a response rate about 8% lower than the full sample.
- When Parent 1 had an income of at least \$1000 pw, the PLE was more likely to take part in an interview (response rate of 67%) than when the Parent 1 had an income below \$1000 per week (response rate 40%).
- Similarly, if Parent 1 was employed, the PLE was more likely to take part in an interview (response rate 54%) than if Parent 1 was not employed (response rate 40%).
- The highest response rate for the P1 self-complete form was in Tasmania (96%) and the lowest was in the ACT (76%).
- Tasmania had the highest response rate to the P2 form (79%), while the NT had the lowest (65%).
- The highest response was to the teacher questionnaires was from Tasmania and the ACT (87%); the lowest was in WA (83%).

Table 7. B Cohort non-response to forms for subpopulations in Wave 3 based on Wave 1 characteristics

Response rate % (N)	B Cohort					
	F2F	P1D	P2SC	PLE	Teach	TUD
Full sample	88.3 (4969)	87.3 (4386)	70.6 (3900)	46.0 (591)	82.5 (4114)	67.6 (4386)
Study child Indigenous	67.1 (222)	77.2 (149)	54.9 (102)	24.6 (57)	72.9 (118)	40.3 (149)
Study child non-Indigenous	89.3 (4747)	87.7 (4237)	71.0 (3798)	48.3 (534)	82.8 (3996)	68.5 (4237)
Parent 1 LOTE spoken	77.8 (531)	75.1 (413)	60.3 (375)	45.2 (42)	76.9 (363)	57.6 (413)
Parent 1 English only	89.5 (4438)	88.6 (3973)	71.7 (3525)	46.1 (549)	83.1 (3751)	68.6 (3973)
Parent 1 Employed	92.3 (2468)	89.2 (2279)	72.6 (2092)	54.9 (237)	83.6 (2189)	71.1 (2279)
Parent 1 Not Employed	84.3 (2491)	85.3 (2099)	68.2 (1800)	39.9 (353)	81.2 (1917)	63.7 (2099)
Parental Income <\$1000	84.2 (2689)	85.6 (2263)	68.1 (1894)	39.5 (443)	80.6 (2095)	63.7 (2263)
Parental Income >=\$1000	93.1 (2280)	89.2 (2123)	73.0 (2006)	65.5 (148)	84.5 (2019)	71.7 (2123)
NSW	86.8 (1571)	85.3 (1363)	68.8 (1231)	47.9 (165)	83.4 (1254)	66.3 (1363)
VIC	87.7 (1213)	85.8 (1064)	68.4 (949)	41.0 (134)	82.9 (1038)	66.0 (1064)
QLD	89.9 (1031)	89.9 (927)	70.8 (797)	48.8 (166)	78.5 (813)	66.7 (927)
WA	86.6 (516)	87.0 (447)	72.8 (401)	47.9 (48)	85.4 (438)	69.8 (447)
SA	89.7 (341)	90.5 (306)	73.1 (268)	46.8 (47)	83.7 (300)	71.2 (306)
Tas	95.4 (109)	93.3 (104)	81.4 (97)	30.0 (10)	88.8 (98)	72.1 (104)
ACT	97.1 (105)	89.2 (102)	81.1 (95)	33.3 (9)	82.0 (100)	77.5 (102)
NT	88.0 (83)	93.2 (73)	79.0 (62)	50.0 (12)	78.1 (73)	78.1 (73)
Capital City	88.3 (3118)	86.0 (2753)	70.7 (2465)	44.0 (336)	82.3 (2606)	68.3 (2753)
Rest Of State	88.2 (1851)	89.6 (1633)	70.4 (1435)	48.6 (255)	83.0 (1508)	66.3 (1633)
Study child male	88.6 (2545)	87.6 (2255)	70.9 (2012)	48.5 (301)	82.5 (2110)	68.5 (2255)
Study child female	87.9 (2424)	87.1 (2131)	70.2 (1888)	43.4 (290)	82.6 (2004)	66.6 (2131)

Table 8. K Cohort non-response to forms for subpopulations in Wave 3 based on Wave 1 characteristics

Response rate % (N)	K Cohort					
	F2F	P1D	P2SC	PLE	Teach	TUD
Full sample	89.7 (4831)	87.9 (4331)	72.3 (3707)	46.9 (859)	85.2 (4275)	68.7 (4331)
Study child Indigenous	67.4 (184)	76.6 (124)	58.3 (84)	19.6 (56)	77.2 (123)	46.8 (124)
Study child non-Indigenous	90.5 (4647)	88.2 (4207)	72.6 (3623)	48.8 (803)	85.5 (4152)	69.3 (4207)
Parent 1 LOTE spoken	79.9 (583)	81.1 (466)	64.2 (411)	37.5 (64)	84.6 (456)	65.7 (466)
Parent 1 English only	91.0 (4248)	88.7 (3865)	73.3 (3296)	47.7 (795)	85.3 (3819)	69.1 (3865)
Parent 1 Employed	92.6 (2780)	89.6 (2574)	75.2 (2269)	53.9 (440)	85.2 (2547)	72.2 (2574)
Parent 1 Not Employed	85.7 (2044)	85.4 (1751)	67.7 (1436)	39.5 (415)	85.2 (1722)	63.6 (1751)
Parental Income <\$1000	85.2 (2439)	85.5 (2079)	67.8 (1610)	39.8 (635)	84.0 (2046)	63.2 (2079)
Parental Income >=\$1000	94.1 (2450)	90.1 (2252)	75.7 (2097)	67.0 (224)	86.3 (2229)	73.8 (2252)
NSW	88.8 (1529)	88.3 (1357)	70.8 (1158)	49.4 (269)	83.1 (1334)	68.7 (1357)
VIC	89.7 (1194)	85.1 (1071)	72.1 (913)	50.5 (202)	85.9 (1061)	69.0 (1071)
QLD	89.3 (965)	89.8 (862)	72.3 (744)	42.2 (187)	87.6 (856)	67.9 (862)
WA	89.5 (496)	90.5 (444)	75.5 (383)	39.7 (78)	82.7 (439)	73.0 (444)
SA	90.5 (325)	90.5 (294)	76.5 (251)	41.5 (65)	84.1 (290)	68.0 (294)
Tas	94.7 (131)	96.0 (124)	79.4 (107)	45.5 (22)	88.5 (122)	71.0 (124)
ACT	96.4 (111)	75.7 (107)	64.9 (97)	50.0 (14)	87.0 (108)	61.7 (107)
NT	90.0 (80)	77.8 (72)	64.8 (54)	63.6 (22)	88.9 (72)	56.9 (72)
Capital City	89.6 (2998)	87.1 (2685)	72.6 (2338)	46.7 (469)	85.5 (2648)	69.8 (2685)
Rest Of State	89.8 (1833)	89.2 (1646)	71.7 (1369)	47.2 (390)	83.8 (1647)	66.9 (1646)
Study child male	89.9 (2461)	87.6 (2212)	72.1 (1903)	47.8 (439)	86.2 (2185)	69.2 (2212)
Study child female	89.4 (2370)	88.2 (2119)	72.5 (1804)	46.0 (420)	84.2 (2090)	68.1 (2119)

Appendix A: Descriptive statistics for predictor variables of non-response by response status and cohort

Population: Families interviewed Wave 1	B-cohort		K-cohort	
	Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 1 characteristics	(N=721)	(N=4386)	(N=652)	(N=4331)
Parent 1 Self-complete returned				
Yes	64.08%	88.44%	64.72%	87.90%
No	35.92%	11.56%	35.28%	12.10%
N	721	4386	652	4331
Time-Use Diary returned				
Yes	51.60%	81.46%	45.25%	79.27%
No	48.40%	18.54%	54.75%	20.73%
N	721	4386	652	4331
Parent 2 Self-complete returned				
Yes	44.66%	76.93%	38.65%	72.41%
No	34.95%	15.55%	34.82%	15.49%
No parent 2	20.39%	7.52%	26.53%	12.10%
N	721	4386	652	4331
Parent 1 gender				
Female	98.20%	98.61%	95.71%	97.32%
Male	1.80%	1.39%	4.29%	2.68%
N	721	4386	652	4331
Parent 1 age				
Mean	28.9	31.35	33.3	35
SD	6.2	5.3	6.3	5.3
N	720	4386	652	4329
Parent 1 country of birth				
Australia	69.35%	79.71%	66.26%	76.50%
Other	30.7%	20.3%	33.7%	23.5%
N	721	4386	652	4331
Parent 1 LOTE spoken at home				
English	74.34%	87.41%	72.09%	86.26%
Other	25.66%	12.59%	27.91%	13.74%
N	721	4386	652	4331
Study Child indigenous status				
ATSI	11.23%	3.40%	9.66%	2.86%
Not ATSI	88.77%	96.60%	90.34%	97.14%
N	721	4386	652	4331
Study Child birthweight				
Mean	3333.48	3422.61	3362.72	3404.71

Population: Families interviewed Wave 1	B-cohort		K-cohort	
	Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 1 characteristics	(N=721)	(N=4386)	(N=652)	(N=4331)
SD	573.37	567.17	589.25	589.07
N	709	4363	620	4277
Study Child multiple birth				
No	97.78%	96.60%	97.24%	97.18%
Yes	2.22%	3.40%	2.76%	2.82%
N	720	4385	652	4330
Parent 1 rating of Study Child health				
Mean	1.6	1.5	1.7	1.6
SD	0.8	0.8	0.8	0.8
N	720	4386	651	4331
Number of serves of fruit and vegetables				
Mean	na	na	1.7	1.7
SD	na	na	0.5	0.5
N	na	na	571	3806
Special Health Care needs				
Yes	6.36%	6.02%	14.51%	12.97%
No	93.64%	93.98%	85.49%	87.03%
N	708	4321	641	4293
Parental impact (of worry over child) scale				
Mean	na	na	1.6	1.5
SD	na	na	1	0.9
N	na	na	652	4330
Study child's enjoyment of physical activity				
Mean	na	na	4.6	4.6
SD	na	na	0.8	0.8
N	na	na	652	4330
Parent rating of own sleep quality				
Mean	2.3	2.2	2.3	2.2
SD	0.8	0.8	0.9	0.9
N	720	4382	652	4330
Study Child attends child care (apart from main school, pre-school, day care for K-cohort)				
Yes	31.90%	36.53%	25.92%	31.49%
No	68.10%	63.47%	74.08%	68.51%
N	721	4386	652	4331
Hours in main school, pre-school or day care (if attend none of these hours=0)				
Mean	na	na	18.3	17.4
SD	na	na	9.6	9
N	na	na	585	4166

Population: Families interviewed Wave 1	B-cohort		K-cohort	
	Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 1 characteristics	(N=721)	(N=4386)	(N=652)	(N=4331)
Home activities index				
Mean	na	na	1.7	1.7
SD	na	na	0.6	0.5
N	na	na	649	4324
Out of home activities index				
Mean	na	na	3.4	3.6
SD	na	na	1.5	1.5
N	na	na	642	4279
Parent 1 has children living elsewhere				
Yes	21.09%	7.69%	30.56%	14.02%
No	78.91%	92.31%	69.44%	85.98%
N	716	4381	648	4321
Parent 1 rating of parent self-efficacy				
Mean	4.1	4.1	4	3.9
SD	0.92	0.86	0.9	0.9
N	710	4370	649	4319
Parent 1 self-efficacy scale				
Mean	8.49	8.47	na	na
SD	1.36	1.2	na	na
N	714	4379	na	na
Parent 1 parental warmth scale				
Mean	4.6	4.5	4.5	4.4
SD	0.4	0.4	0.5	0.5
N	714	4379	650	4322
Parent 1 inductive reasoning scale				
Mean	na	na	4.3	4.3
SD	na	na	0.7	0.6
N	na	na	650	4321
Parent 1 angry parenting scale				
Mean	na	na	2.2	2.2
SD	na	na	0.6	0.6
N	na	na	650	4321
Parent 1 consistent parenting scale				
Mean	na	na	3.8	4.1
SD	na	na	0.8	0.7
N	na	na	649	4320
Parent 1 hostile parenting scale				
Mean	1.9	1.9	na	na

Population: Families interviewed Wave 1	B-cohort		K-cohort	
	Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 1 characteristics	(N=721)	(N=4386)	(N=652)	(N=4331)
SD	1.14	1.14	na	na
N	712	4377	na	na
Parent 1 SDQ prosocial				
Mean	na	na	7.7	7.8
SD	na	na	1.9	1.8
N	na	na	648	4321
Parent 1 SDQ hyperactivity				
Mean	na	na	4	3.4
SD	na	na	2.3	2.3
N	na	na	648	4321
Parent 1 SDQ emotional symptoms				
Mean	na	na	2	1.7
SD	na	na	1.8	1.7
N	na	na	648	4320
Parent 1 SDQ conduct problems				
Mean	na	na	2.9	2.4
SD	na	na	2.1	2
N	na	na	648	4321
Parent 1 SDQ peer problems				
Mean	na	na	2	1.6
SD	na	na	1.6	1.5
N	na	na	648	4321
Parent 1 school completion				
Year 12	50.14%	69.42%	40.83%	60.75%
Year 11	14.07%	10.79%	15.56%	13.28%
Year 10	23.96%	15.90%	26.19%	20.63%
Year 9 or below/not completed	11.84%	3.90%	17.41%	5.34%
N	718	4385	649	4329
Parent 1 has bachelors degree				
Yes	20.36%	34.93%	13.91%	30.32%
No	79.64%	65.07%	86.09%	69.68%
N	717	4383	647	4324
Parent 1 currently studying				
Yes	9.74%	9.33%	13.25%	12.82%
No	90.26%	90.67%	86.75%	87.18%
N	719	4383	649	4329
Language first spoken by P1				
English	74.69%	86.56%	72.22%	83.70%

Population: Families interviewed Wave 1	B-cohort		K-cohort	
	Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 1 characteristics	(N=721)	(N=4386)	(N=652)	(N=4331)
Other	25.31%	13.44%	27.78%	16.30%
N	719	4384	648	4326
Parent 1 has parent born overseas				
Yes	52.29%	42.92%	46.91%	45.58%
No	47.71%	57.08%	53.09%	54.42%
N	719	4380	648	4326
Parent 1 regularly attends religious services				
Yes	18.36%	20.44%	26.08%	23.69%
No	81.64%	79.56%	73.92%	76.31%
N	719	4378	648	4314
Parent 1 work status				
Employed, full-time	9.33%	10.83%	17.57%	20.95%
Employed, part-time	20.89%	31.09%	25.42%	38.57%
Employed, maternity leave	4.87%	10.14%	na*	na*
Unemployed	5.15%	2.92%	6.78%	3.33%
Not in the labour force	59.75%	45.02%	50.23%	37.16%
N	718	4378	649	4325
Highest occupational prestige rating (1 st digit of ASCO code) of parent				
Mean	5.4	4.6	5.6	4.8
SD	2.5	2.5	2.5	2.4
N	649	4225	584	4202
Parent receives income from wages				
Yes	25.53%	34.84%	37.00%	49.34%
No	74.47%	65.16%	63.00%	50.66%
N	713	4340	646	4301
Parent receives income from profit from business				
Yes	6.87%	10.62%	7.12%	13.39%
No	93.13%	89.38%	92.88%	86.61%
N	713	4340	646	4301
Parent receives income from rent				
Yes	3.51%	7.56%	4.18%	9.02%
No	96.49%	92.44%	95.82%	90.98%
N	713	4340	646	4301
Parent receives income from dividends or interest				
Yes	6.17%	16.08%	5.73%	19.39%
No	93.83%	83.92%	94.27%	80.61%
N	713	4340	646	4301

Population: Families interviewed Wave 1	B-cohort		K-cohort	
	Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 1 characteristics	(N=721)	(N=4386)	(N=652)	(N=4331)
Parent receives income from Government pension/allowance				
Yes	80.08%	70.55%	79.88%	71.19%
No	19.92%	29.45%	20.12%	28.81%
N	713	4340	646	4301
Log combined parental income				
Mean	6.5	6.9	6.6	6.9
SD	0.8	0.8	0.7	0.7
N	634	4018	573	3911
Financial hardship scale				
Mean	1.3	0.8	1.4	0.8
SD	1.6	1.2	1.6	1.2
N	715	4380	642	4327
Rating of family prosperity				
Mean	3.3	3.2	3.4	3.2
SD	0.9	0.8	0.9	0.8
N	717	4382	648	4326
Length of time in lived in current home				
Mean	32.9	43.7	45.5	56.7
SD	38.6	46.4	43.2	54.7
N	716	4383	648	4329
Number of homes Study Child has lived in since birth				
Mean	1.3	1.2	2.1	1.9
SD	0.5	0.4	0.9	0.8
N	717	4386	645	4329
Housing tenure				
Being paid off	36.96%	60.12%	42.81%	60.78%
Owned outright	5.16%	7.67%	8.04%	11.46%
Rented	47.98%	25.76%	44.20%	24.10%
Other	9.90%	6.46%	4.95%	3.65%
N	717	4383	647	4327
Neighbourhood liveability				
Mean	2.1	2	2.1	2
SD	0.5	0.5	0.5	0.5
N	717	4386	646	4330
Neighbourhood facilities				
Mean	2	2	2	2
SD	0.7	0.7	0.6	0.7
N	717	4386	646	4329

Population: Families interviewed Wave 1	B-cohort		K-cohort	
	Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 1 characteristics	(N=721)	(N=4386)	(N=652)	(N=4331)
Who Am I? test				
Mean	na	na	62.5	64.3
SD	na	na	8.1	8.1
N	na	na	614	4266
Number of people living in household				
Mean	4.2	4	4.6	4.5
SD	1.5	1.2	1.5	1.2
N	721	4386	652	4331
Number of siblings living with Study Child				
Mean	1	1	1.6	1.5
SD	1.2	1.1	1.3	1
N	721	4386	652	4331
SEIFA disadvantage				
Mean	983.9	1006.7	984.4	1006.1
SD	74.4	68.5	79	68.4
N	721	4386	652	4331
Proportion of residents of postcode aged 0 to 4				
Mean	7	6.8	7.2	6.9
SD	1.7	1.6	1.7	1.6
N	721	4386	652	4331
Proportion of residents of postcode of ATSI background				
Mean	2.5	2	2.3	2.1
SD	4.2	3.4	3.9	3.6
N	721	4386	652	4331
Proportion of residents of postcode completed year 12				
Mean	38.5	40.2	38.4	40
SD	12.4	12.9	12.3	12.9
N	721	4386	652	4331
Proportion of residents of postcode employed				
Mean	57	59	57.7	58.9
SD	8.5	8.1	8.6	8.1
N	721	4386	652	4331
Proportion of residents of postcode in families with incomes higher than \$1,000/week				
Mean	55	52.2	55	52.4
SD	14.3	14.4	14.3	14.6
N	721	4386	652	4331
Proportion of residents of postcode speak only English at home				
Mean	81.9	85.7	82.2	85.8

Population: Families interviewed Wave 1	B-cohort		K-cohort	
	Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 1 characteristics	(N=721)	(N=4386)	(N=652)	(N=4331)
SD	19.1	15.3	18.8	15
N	721	4386	652	4331
Proportion of residents of postcode born in Australia				
Mean	75.1	77.6	75.7	77.8
SD	14	11.9	13.3	11.8
N	721	4386	652	4331

Population: Families interviewed Wave 2	B-cohort		K-cohort	
	Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 2 characteristics	(N=353)	(N=4253)	(N=268)	(N=4196)
Parent 1 Self-complete returned				
Yes	41.1%	79.7%	42.5%	80.6%
No	58.9%	20.3%	57.5%	19.4%
N	353	4253	268	4196
Time-Use Diary returned				
Yes	40.2%	78.8%	42.2%	79.8%
No	59.8%	21.2%	57.8%	20.2%
N	353	4253	268	4196
Parent 2 Self-complete returned				
Yes	29.5%	71.1%	28.4%	68.5%
No	42.5%	19.3%	42.2%	17.7%
No parent 2	28.1%	9.6%	29.5%	13.9%
N	353	4253	268	4196
Parent 1 gender				
Female	96.6%	98.3%	93.7%	96.8%
Male	3.4%	1.7%	6.3%	3.2%
N	353	4253	268	4196
Parent 1 age				
Mean	31.4	33.5	35.3	37.1
SD	6.4	5.3	6.5	5.4
N	352	4253	268	4194
Parent 1 country of birth				
Australia	68.6%	79.7%	63.8%	77.0%
Other	31.4%	20.3%	36.2%	23.0%
N	353	4253	268	4195
Parent 1 LOTE spoken at home				

Population: Families interviewed Wave 2		B-cohort		K-cohort	
		Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 2 characteristics		(N=353)	(N=4253)	(N=268)	(N=4196)
English		73.9%	87.6%	69.4%	86.5%
Other		26.1%	12.4%	30.6%	13.5%
N		353	4253	268	4196
Study Child indigenous status					
ATSI		11.3%	3.3%	11.6%	2.9%
Not ATSI		88.7%	96.7%	88.4%	97.1%
N		353	4253	268	4194
Study Child birthweight					
Mean		3382.5	3418.2	3373.3	3407.3
SD		573.1	591.5	583.1	589.5
N		347	4242	255	4144
Study Child multiple birth					
No		97.7%	96.5%	97.0%	97.2%
Yes		2.3%	3.5%	3.0%	2.8%
N		353	4253	268	4195
Parent 1 rating of Study Child health					
Mean		1.7	1.7	1.7	1.6
SD		0.8	0.8	0.7	0.8
N		353	4253	268	4196
Number of serves of fruit and vegetables					
Mean		3.1	3.1	3.0	3.1
SD		1.5	1.4	1.5	1.4
N		353	4252	267	4195
Special Health Care needs					
Yes		11.2%	11.3%	16.7%	14.6%
No		88.8%	88.7%	83.3%	85.4%
N		353	4253	258	4057
Gross motor coordinaton					
Mean		na	na	1.8	1.8
SD		na	na	0.4	0.4
N		na	na	268	4194
Parent rating of own sleep quality					
Mean		2.7	2.8	2.7	2.6
SD		1.1	1.1	1.4	1.1
N		353	4253	268	4195
Study Child attends child care (apart from main school, pre-school, day care for K-cohort)					
Yes		60.6%	71.2%	33.2%	35.8%
No		39.4%	28.8%	66.8%	64.2%

Population: Families interviewed Wave 2		B-cohort		K-cohort	
		Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 2 characteristics		(N=353)	(N=4253)	(N=268)	(N=4196)
N		353	4253	268	4196
School grade					
	Grade 1/Year 1	na	na	62.9%	70.1%
	Grade 2/Year 2	na	na	30.0%	24.9%
	Other	na	na	7.1%	5.0%
	N	na	na	267	4180
School Type					
	Government	na	na	72.8%	66.9%
	Catholic	na	na	18.7%	21.7%
	Independent	na	na	8.2%	11.0%
	Not in school	na	na	0.4%	0.4%
	N	na	na	268	4196
Parent 1's education expectation for child					
	Leave before finishing secondary school	na	na	2.4%	1.3%
	Complete secondary school	na	na	22.4%	14.4%
	Complete a trade or vocational training course	na	na	14.5%	15.8%
	Go to university and complete a degree	na	na	51.0%	58.1%
	Obtain post-graduate qualifications at university	na	na	9.8%	10.4%
	N			255	4064
School social capital					
	Mean	na	na	3.4	3.8
	SD	na	na	1.3	1.2
	N	na	na	267	4180
Home activities index					
	Mean	1.8	2.0	1.4	1.4
	SD	0.6	0.6	0.6	0.5
	N	353	4253	268	4196
Out of home activities index					
	Mean	2.0	2.3	2.5	2.8
	SD	1.1	1.1	1.2	1.2
	N	353	4253	268	4196
Amount of TV watched by the study child each week					
	Mean	16.7	15.7	14.2	16.1

Population: Families interviewed Wave 2	B-cohort		K-cohort	
	Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 2 characteristics	(N=353)	(N=4253)	(N=268)	(N=4196)
SD	22.8	22.7	20.4	21.7
N	353	4253	268.0	4196
Parent 1 rating of parent self-efficacy				
Mean	4.0	4.1	4.1	4.1
SD	0.9	0.8	0.9	0.8
N	323	4161	250	4098
Parent 1 parental warmth scale				
Mean	4.5	4.6	4.4	4.4
SD	0.5	0.4	0.5	0.5
N	353	4170	249	4101
Parent 1 inductive reasoning scale				
Mean	4.2	4.2	4.3	4.2
SD	0.8	0.7	0.7	0.6
N	353	4170	247	4098
Parent 1 angry parenting scale				
Mean	na	na	2.2	2.2
SD	na	na	0.6	0.6
N	na	na	249	4100
Parent 1 consistent parenting scale				
Mean	na	na	4.0	4.2
SD	na	na	0.7	0.6
N	na	na	248	4100
Parent 1 hostile parenting scale				
Mean	3.1	3.1	3.2	3.1
SD	1.5	1.3	1.4	1.4
N	142	3372	113	3358
Parent 1 SDQ prosocial				
Mean	na	na	8.1	8.2
SD	na	na	2.0	1.7
N	na	na	248	4094
Parent 1 SDQ hyperactivity				
Mean	na	na	3.7	3.3
SD	na	na	2.5	2.3
N	na	na	246	4094
Parent 1 SDQ emotional symptoms				
Mean	na	na	1.9	1.6
SD	na	na	1.8	1.7

Population: Families interviewed Wave 2	B-cohort		K-cohort	
	Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 2 characteristics	(N=353)	(N=4253)	(N=268)	(N=4196)
N	na	na	248	4094
Parent 1 SDQ conduct problems				
Mean	na	na	1.6	1.4
SD	na	na	1.5	1.5
N	na	na	247	4094
Parent 1 SDQ peer problems				
Mean	na	na	2.0	1.5
SD	na	na	1.7	1.6
N	na	na	247	4094
Parent 1 BITSEA problems				
Mean	31.6	30.2	na	na
SD	5.1	4.5	na	na
N	325	4157	na	na
Parent 1 BITSEA competencies				
Mean	28.0	28.7	na	na
SD	2.9	2.6	na	na
N	323	4152	na	na
Parent 1 K6				
Mean	4.4	4.5	4.4	4.5
SD	0.7	0.5	0.7	0.6
N	325	4168	248	4102
Parent 1 school completion				
Year 12	52.4%	70.2%	40.3%	60.8%
Year 11	14.3%	10.6%	14.6%	13.3%
Year 10	24.2%	15.7%	28.4%	20.7%
Year 9 or below/not completed	9.1%	3.6%	16.8%	5.2%
N	353	4253	268	4193
Parent 1 has bachelors degree				
Yes	22.4%	34.9%	14.6%	30.3%
No	77.6%	65.1%	85.5%	69.8%
N	353	4250	268	4188
Parent 1 currently studying				
Yes	11.3%	10.6%	16.9%	13.4%
No	88.7%	89.4%	83.2%	86.6%
N	353	4253	267	4196
Language first spoken by P1				
English	75.1%	86.7%	70.9%	84.0%

Population: Families interviewed Wave 2	B-cohort		K-cohort	
	Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 2 characteristics	(N=353)	(N=4253)	(N=268)	(N=4196)
Other	24.9%	13.3%	29.1%	16.0%
N	353	4251	268	4191
Parent 1 has parent born overseas				
Yes	51.8%	43.0%	53.4%	45.2%
No	48.2%	57.0%	46.6%	54.8%
N	353	4253	268	4190
Parent 1 work status				
Employed, full-time	17.3%	17.1%	25.5%	25.4%
Employed, part-time	23.8%	38.7%	28.5%	41.8%
Employed, maternity leave	3.1%	4.1%	0.4%	1.1%
Unemployed	4.0%	2.6%	5.2%	3.0%
Not in the labour force	51.8%	37.5%	40.5%	28.8%
N	353	4253	267	4196
Highest occupational prestige rating (1 st digit of ASCO code) of parent				
Mean	4.6	3.4	4.6	3.5
SD	2.6	2.2	2.8	2.2
N	351	4245	268	4185
Parent receives income from wages				
Yes	67.6%	83.1%	73.4%	84.2%
No	32.4%	16.9%	26.6%	15.8%
N	352	4250	267	4194
Parent receives income from profit from business				
Yes	13.6%	20.5%	12.0%	22.2%
No	86.4%	79.5%	88.0%	77.9%
N	352	4250	267	4194
Parent receives income from Government pension/allowance				
Yes	79.6%	68.8%	75.7%	63.4%
No	20.5%	31.2%	24.3%	36.6%
N	352	4250	267	4194
Log combined parental income				
Mean	6.9	7.2	3.0	7.2
SD	0.9	0.7	0.8	0.7
N	311	3921	4196	3858
Financial hardship scale				
Mean	0.5	0.3	0.5	0.3
SD	1.0	0.7	0.9	0.7
N	350	4224	266	4174

Population: Families interviewed Wave 2	B-cohort		K-cohort	
	Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 2 characteristics	(N=353)	(N=4253)	(N=268)	(N=4196)
Rating of family prosperity				
Mean	3.1	3.0	3.1	3.0
SD	0.9	0.8	0.9	0.8
N	352	4251	266	4196
Length of time in lived in current home				
Mean	23.8	25.5	44.0	50.3
SD	12.2	11.6	24.9	29.1
N	353	4253	267	4196
Number of homes Study Child has lived in since birth				
Mean	1.8	1.6	2.5	2.2
SD	0.9	0.9	1.2	1.1
N	352	4253	265	4194
Housing tenure				
Being paid off	39.9%	61.8%	47%	63%
Owned outright	6.8%	9.7%	5%	13%
Rented	46.2%	24.3%	44%	22%
Other	7.1%	4.3%	4%	3%
N	353	4251	268	4196
BMI z-score				
Mean	0.5	0.5	0.4	0.4
SD	1.2	1.1	1.0	1.0
N	344	4178	259	4164
PPVT				
Mean	na	na	72.0	74.0
SD	na	na	5.0	5.1
N	na	na	253	4064
Matrix Reasoning				
Mean	na	na	9.7	10.4
SD	na	na	3.0	3.0
N	na	na	260	4153
School adjustment				
Mean	na	na	1.5	1.5
SD	na	na	0.3	0.3
N	na	na	259	4138
Number of people living in household				
Mean	4.4	4.3	4.6	4.6
SD	1.5	1.1	1.6	1.2
N	353	4253	268	4196

Population: Families interviewed Wave 2	B-cohort		K-cohort	
	Wave 3 non-respondents	Wave 3 Respondents	Wave 3 non-respondents	Wave 3 Respondents
Wave 2 characteristics	(N=353)	(N=4253)	(N=268)	(N=4196)
Number of siblings living with Study Child				
Mean	1.3	1.3	1.7	1.6
SD	1.2	1.0	1.4	1.0
N	353	4253	268	4196
SEIFA disadvantage				
Mean	989.8	1011.5	988.5	1011.5
SD	67.3	60.1	81.1	61.2
N	353	4253	268	4196
Proportion of residents of postcode aged 0 to 4				
Mean	6.7	6.6	6.9	6.5
SD	1.2	1.2	1.4	1.3
N	353	4253	268	4196
Proportion of residents of postcode of Indigenous background				
Mean	3.2	2.3	3.4	2.5
SD	6.8	4.0	9.2	5.0
N	353	4253	268	4196
Proportion of residents of postcode completed year 12				
Mean	43.9	45.6	44.5	45.5
SD	12.5	13.1	12.7	13.2
N	353	4253	268	4196
Proportion of residents of postcode employed				
Mean	60.2	62.0	60.7	61.9
SD	7.5	7.2	7.5	7.3
N	353	4253	268	4196
Proportion of residents of postcode in families with incomes higher than \$1,000/week				
Mean	4.4	4.3	4.6	4.6
SD	1.5	1.1	1.6	1.2
N	353	4253	268	4196
Proportion of residents of postcode speak only English at home				
Mean	1.3	1.3	1.7	1.6
SD	1.2	1.0	1.4	1.0
N	353	4253	268	4196
Proportion of residents of postcode born in Australia				
Mean	989.8	1011.5	988.5	1011.5
SD	67.3	60.1	81.1	61.2
N	353	4253	268	4196

