

**Table S1.** Genome-wide meta-analysis results for educational attainment in a sample excluding mothers from the Avon Longitudinal Study of Parents and Children.

<b>Marker</b>	<b>A1</b>	<b>A2</b>	<b>Freq A1</b>	<b>Freq(SE)</b>	<b>z-score</b>	<b>pval<sup>m</sup></b>
rs9320913	A	C	0.4812	0.0211	6.735	$1.6 \times 10^{-11}$
rs11584700	A	G	0.7804	0.0158	-5.807	$6.4 \times 10^{-9}$
rs4851266	T	C	0.3965	0.0178	5.913	$3.4 \times 10^{-9}$

Results are taken from an identical data set to that used by Rietveld et al. [2] having removed the ALSPAC mothers' contribution to this analysis. pval<sup>m</sup> represents a p-value for the revised meta-analysis for single-point association.

**Table S2.** Sex specific estimates of the relationship between English and mathematics SATS z-scores and allele score in the ALSPAC study.

Regression model	SNP	Beta	95% CI	P-value	Number of observations
English z-score					
OLS of English z-score on child's allele score (boys)	Three SNP allele score	0.050	0.018, 0.082	0.002	2,989
OLS of English z-score on child's allele score (girls)		0.032	0.004, 0.061	0.027	2,990
OLS of English z-score on child's allele score (boys)	rs9320913	0.079	0.028, 0.130	0.002	2,989
OLS of English z-score on child's allele score (girls)		0.031	-0.015, 0.078	0.187	2,990
OLS of English z-score on child's allele score (boys)	rs11584700	0.039	-0.023, 0.101	0.215	2,989
OLS of English z-score on child's allele score (girls)		0.031	-0.026, 0.088	0.290	2,990
OLS of English z-score on child's allele score (boys)	rs4851266	0.023	-0.029, 0.075	0.384	2,989
OLS of English z-score on child's allele score (girls)		0.035	-0.013, 0.083	0.158	2,990
Mathematics z-score					
OLS of mathematics z-score on child's allele score (boys)	Three SNP allele score	0.028	-0.004, 0.061	0.084	3,098
OLS of mathematics z-score on child's allele score (girls)		0.028	-0.001, 0.058	0.055	3,047
OLS of mathematics z-score on child's allele score (boys)	rs9320913	0.062	0.011, 0.114	0.018	3,098
OLS of mathematics z-score on child's allele score (girls)		0.025	-0.022, 0.072	0.298	3,047
OLS of mathematics z-score on child's allele score (boys)	rs11584700	0.020	-0.042, 0.083	0.525	3,098
OLS of mathematics z-score on child's allele score (girls)		0.037	-0.021, 0.094	0.211	3,047
OLS of mathematics z-score on child's allele score (boys)	rs4851266	-0.003	-0.056, 0.049	0.899	3,098

OLS of mathematics z-score on child's allele score (girls)		0.026	-0.022, 0.075	0.288	3,047
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Beta coefficients, 95% CIs and p-values are from a model that included age as a covariable.

**Table S3.** Estimates of the relationship between English and mathematics SATS z-scores and individual SNPs rs9320913, rs11584700 and rs4851266 in the ALSPAC study.

Regression model	SNP	Beta	95%CI	P-value	Number of observations
English z-score					
OLS of English z-score on child's allele score (all children)	rs9320913	0.055	0.020, 0.089	0.002	5,979
OLS of English z-score on child's allele score, adjusting for maternal allele score (all children)		0.067	0.018, 0.115	0.007	4,008
OLS of English z-score on child's allele score (children without maternal genome-wide data)		0.039	-0.020, 0.099	0.196	1,971
OLS of English z-score on child's allele score (all children), controlling for first four PCs of genetic population structure in ALSPAC		0.055	0.020, 0.089	0.002	5,979
OLS of English z-score on child's allele score (all children)		0.035	-0.007, 0.077	0.102	5,979
OLS of English z-score on child's allele score, adjusting for maternal allele score (all children)	rs11584700	0.021	-0.039, 0.080	0.496	4,008
OLS of English z-score on child's allele score (children without maternal genome-wide data)		0.065	-0.006, 0.137	0.073	1,971
OLS of English z-score on child's allele score (all children), controlling for first four PCs of genetic population structure in ALSPAC		0.034	-0.008, 0.076	0.109	5,979
OLS of English z-score on child's allele score (all children)		rs4851266	0.029	-0.007, 0.064	0.110

OLS of English z-score on child's allele score, adjusting for maternal allele score (all children)		0.026	-0.023, 0.076	0.296	4,008
OLS of English z-score on child's allele score (children without maternal genome-wide data)		0.013	-0.048, 0.075	0.671	1,971
OLS of English z-score on child's allele score (all children), controlling for first four PCs of genetic population structure in ALSPAC		0.029	-0.006, 0.065	0.107	5,979
Mathematics z-score					
OLS of mathematics z-score on child's allele score (all children)	rs9320913	0.043	0.008, 0.078	0.015	6,145
OLS of mathematics z-score on child's allele score, adjusting for maternal allele score (all children)		0.074	0.024, 0.123	0.003	4,106
OLS of mathematics z-score on child's allele score (children without maternal genome-wide data)		0.031	-0.029, 0.091	0.313	2,039
OLS of mathematics z-score on child's allele score (all children), controlling for first four PCs of genetic population structure in ALSPAC		0.044	0.009, 0.078	0.014	6,145
OLS of mathematics z-score on child's allele score (all children)	rs11584700	0.028	-0.014, 0.071	0.191	6,145
OLS of mathematics z-score on child's allele score, adjusting for maternal allele score (all children)		0.032	-0.028, 0.092	0.290	4,106
OLS of mathematics z-score on child's allele score (children without maternal genome-wide data)		0.016	-0.056, 0.088	0.660	2,039
OLS of mathematics z-score on child's allele score (all		0.027	-0.015, 0.070	0.206	6,145

children), controlling for first four PCs of genetic population structure in ALSPAC					
OLS of mathematics z-score on child's allele score (all children)	rs4851266	0.011	-0.024, 0.047	0.534	6,145
OLS of mathematics z-score on child's allele score, adjusting for maternal allele score (all children)		0.011	-0.039, 0.061	0.675	4,106
OLS of mathematics z-score on child's allele score (children without maternal genome-wide data)		-0.003	-0.064, 0.058	0.926	2,039
OLS of mathematics z-score on child's allele score (all children), controlling for first four PCs of genetic population structure in ALSPAC		0.012	-0.024, 0.048	0.520	6,145

Beta coefficients, 95% CIs and p-values are from a model that included age and sex as covariables.

**Table S4.** Percentage of variation in the English and mathematics scores explained by the child's allele score and the individual SNPs. The regression models do not include any covariables.

<b>Regression model</b>	<b>R<sup>2</sup></b>	<b>P-value</b>
English z-score		
OLS of English z-score on allele score	0.27%	5.61×10 <sup>-5</sup>
OLS of English z-score on rs9320913	0.18%	0.001
OLS of English z-score on rs11584700	0.06%	0.064
OLS of English z-score on rs4851266	0.05%	0.091
Mathematics z-score		
OLS of mathematics z-score on allele score	0.10%	0.012
OLS of mathematics z-score on rs9320913	0.10%	0.015
OLS of mathematics z-score on rs11584700	0.02%	0.225
OLS of mathematics z-score on rs4851266	0.01%	0.535