



Parental Investment in Childhood and Later Adult Well-Being

**Can Greater Parental Involvement Mediate
the Effects of Socioeconomic Disadvantage?**

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The Long Arm of Childhood Disadvantage

- Related to a multitude of long term demographic and socioeconomic factors
 - Increases risk of being in social housing, being on benefits, no educational qualifications, low income and unemployment
 - Increases risk of young parenthood, birth outside of partnership
 - Shorter-term – increased risk of contact with the police
- However, the effect of disadvantage can be reduced via
 - Individual child factors and family/household level factors
 - **Parental involvement as social capital**



Research Question

- Can Parental Involvement Mediate the Effects of Childhood Disadvantage on Adult Socioeconomic Disadvantage?
 - If so does this effect vary...
 - by age when involvement and disadvantage are measured
 - by type of parental support
 - by gender of parent



DATA and METHODS

- **National Child Development Study (NCDS)**
- Longitudinal sample of all births in Britain in one week in March 1958
- Follow-ups at age 7, 11, 16, 23, 33 and 42
 - Restricted to intact families during childhood (birth to age 16)

DATA and METHODS, continued

- **VARIABLES**

- **Adult Outcome at Age 33**

- No Educational Qualifications (1,0)

- **Childhood Financial Disadvantage
(at Age 7 and 11)**

- Age 7: asked of a Health Visitor
- Age 11: Parents answered the question,
 - *"Have you been seriously troubled by financial hardship in the last 12 months?"*

DATA and METHODS, continued

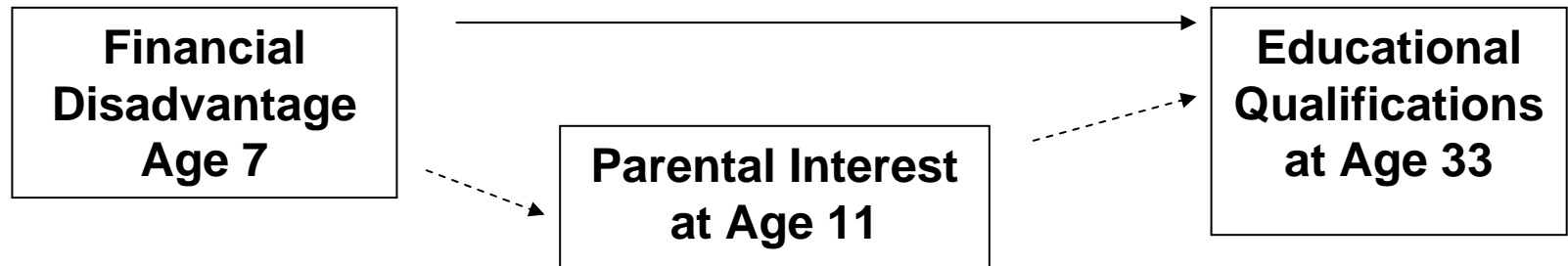
- **Parental Involvement Measures**
- Age 11
 - Parent's interest in child's schooling, as assessed by teacher
 - Frequency that father/mother takes child on outings (e.g. walks, picnics, outings and visits)
- Age 16
 - Parent's interest in child's schooling, as assessed by teacher
 - Does child get along well with mother/father?

DATA and METHODS, continued

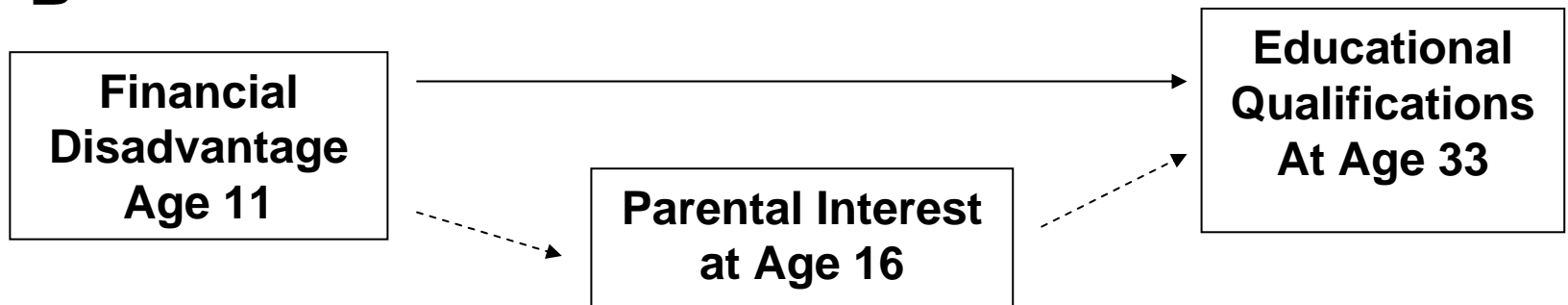
- **Controls (See Table A1)**
 - **Parental/Household**
 - Young Parents at Birth
 - Parents Left School under Age 15
 - *Indicators Summarized across Childhood Waves: Father's Social Class, Home Ownership, Number in Household, Residential Mobility*
 - **Child Level**
 - Sex
 - Child Behaviour (Aggression & Anxiety) and Child's Reading Ability at Multiple Childhood Waves

Two Separate Models

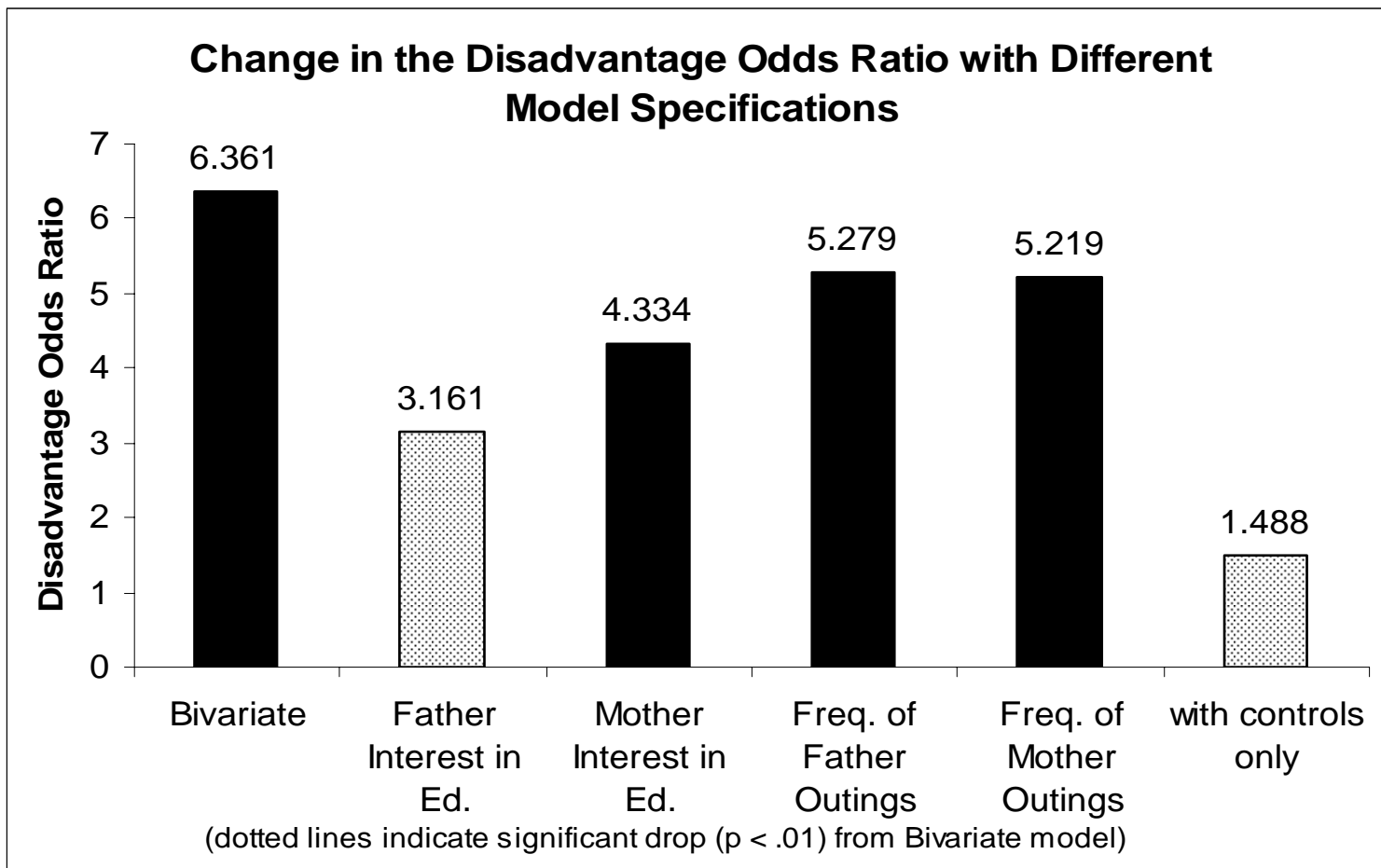
A



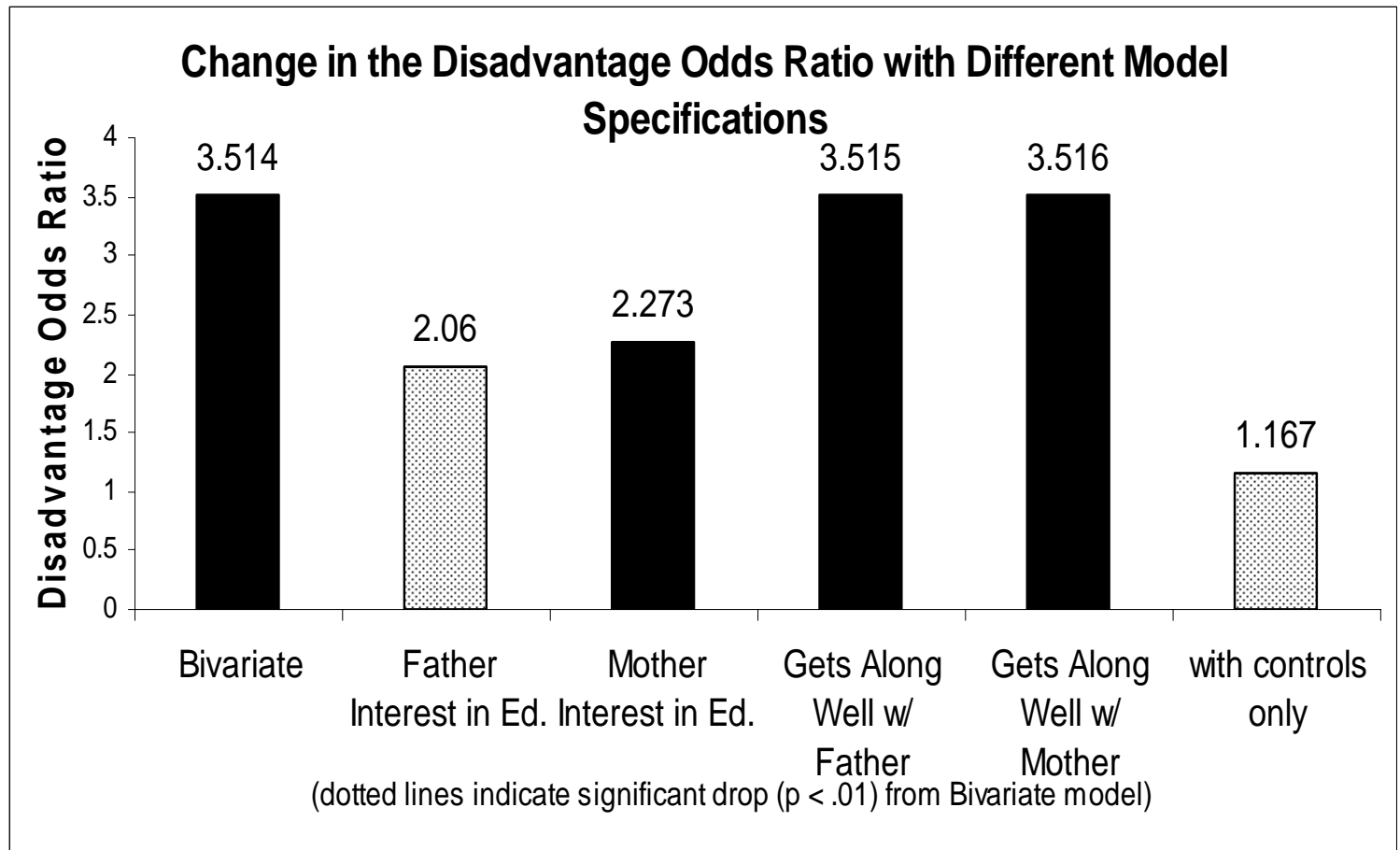
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Results(A): The Effect of Parental Interest at Age 11 on the Relationship Between Age 7 Financial Disadvantage and Qualifications

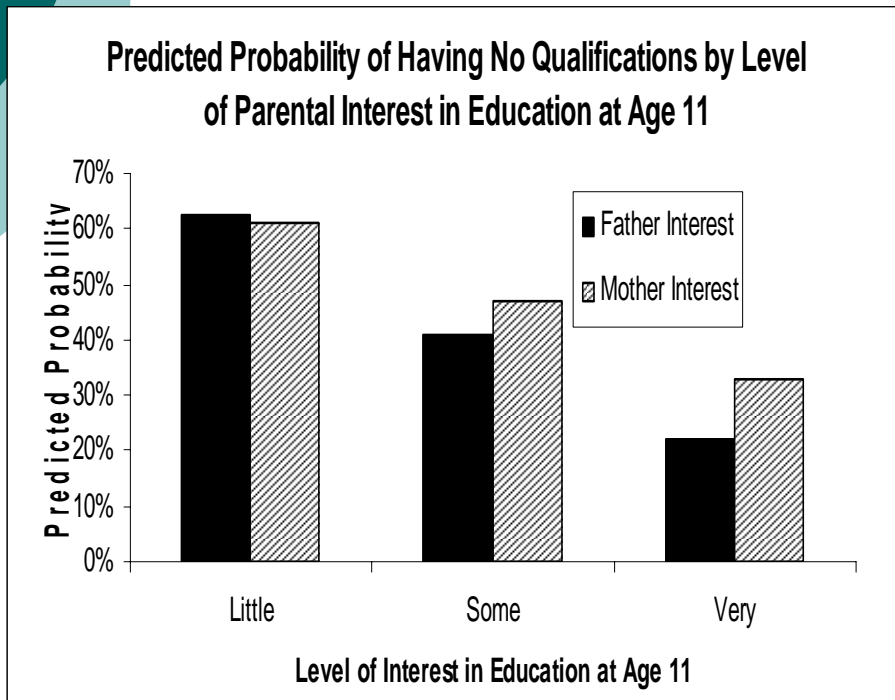


Results(B): The Effect of Parental Interest at Age 16 on the Relationship Between Age 11 Financial Disadvantage and Qualifications

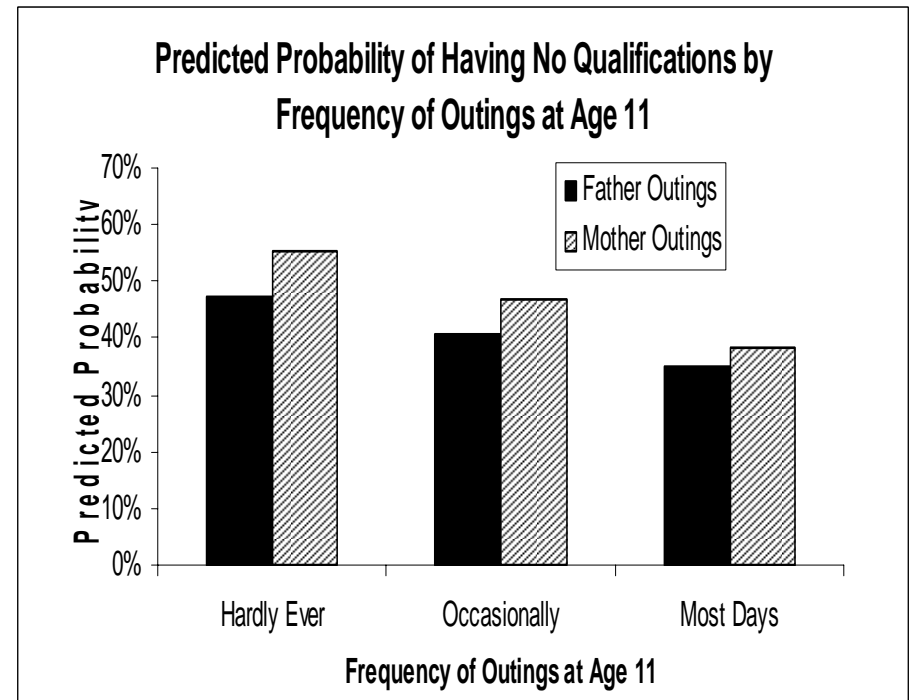


Predicted Probability of Having No Qualifications by Level of Parental Interest/Involvement

A

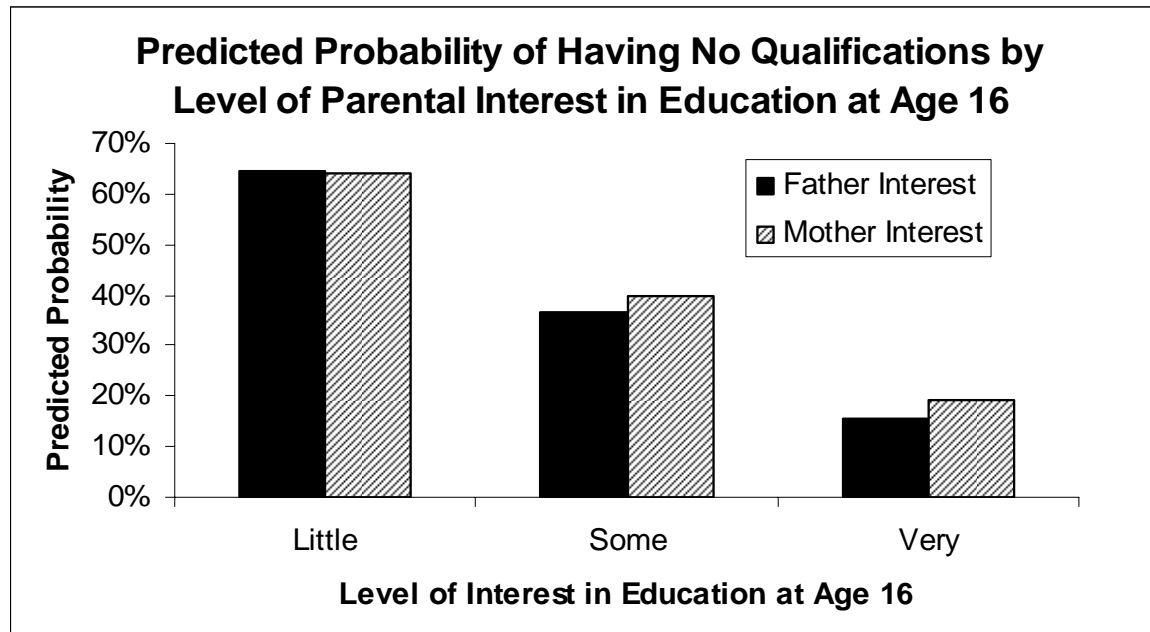


A



Predicted Probability of Having No Qualifications by Level of Parental Interest/Involvement

B



Results Summary

- **Can Parental Involvement Mediate the Effects of Childhood Disadvantage on Later Adult Socio-economic Disadvantage?**
 - YES, but the effect varied by ...
 - Age when involvement and disadvantage were measured
 - Disadvantage at age 7 was most harmful, while interest at age 16 had a greater direct benefit
 - Type
 - Parental Interest in education was the most important, then frequency of outings.
 - Gender of parent
 - Father interest in education had the most protective effect

Appendix - Tables

TABLE 2: Variable Definitions, and Means for Both Samples. NCDS Intact Families Birth to Age 16

Variable	Definition	<u>Means in Both Samples</u>	
		<u>Disadvantage 7, Interest 11 (n=3072)</u>	<u>Disadvantage 11, Interest 16 (n=2658)</u>
<u>Financial Disadvantage</u>			
Disadvantaged at Age 7	Health Visitor reported that the family was having ‘financial difficulties’ (1,0)	0.042	-----
Disadvantaged at Age 11	The parents reported that they were having ‘financial difficulty’ in the past year (1,0)	-----	0.064
<u>Parental Involvement</u>			
Father Interest in School, Age 11	Father’s interest in the child’s school, as assessed by the teacher (0=little interest, 1=some interest, 2=very interested/overly interested)	1.285	----
Mother Interest in School, Age 11	Mother’s interest in the child’s school, as assessed by the teacher (0=little interest, 1=some interest, 2=very interested/overly interested)	1.237	----
Frequency of Outings with Father, Age 11	Parents are asked the question “How often does the father/father figure take the child out for walks, outings, picnics & visits?” (0=hardly ever, 1=occasionally, 2=most weeks)	1.493	----
Frequency of Outings with Mother, Age 11	Parents are asked the question “How often does the mother/mother figure take the child out for walks, outings, picnics & visits?” (0=hardly ever, 1=occasionally, 2=most weeks)	1.537	----
Father Interest in School, Age 16	Father’s interest in the child’s school, as assessed by the teacher (0=little interest, 1=some interest, 2=very interested/overly interested)	----	1.365
Mother Interest in School, Age 16	Mother’s interest in the child’s school, as assessed by the teacher (0=little interest, 1=some interest, 2=very interested/overly interested)	----	1.410
Getting Along with Father, Age 16	The teen is asked to respond to the statement “I get on well with my father” using the response categories: very untrue/untrue=0, uncertain=1, true=2, very true=3	----	2.147
Getting Along with Mother, Age 16	The teen is asked to respond to the statement “I get on well with my mother” using the response categories: very untrue/untrue=0, uncertain=1, true=2, very true=3	----	2.273
<u>Parental/Household Measures</u>			
Young Parents at Birth	Both parents were young (Father <age 25; Mother <age 23) at the birth of the respondent (1,0)	0.094	0.095
Father Left School at Young Age	Father/Father figure left school prior to age 15 (1,0)	0.561	0.560
Mother Left School at Young Age	Mother/Mother figure left school prior to age 15 (1,0)	0.459	0.448
Low Father Social Class	Father was employed in a semi- or un-skilled manual occupation (1,0)		
Birth - Age 11	Number of waves between birth and Age 11 with low father social class (0 – 3)	0.519	-----
Birth - Age 16	Number of waves between birth and Age 16 with low father social class (0 – 4)	-----	0.585

Appendix - Tables

TABLE 2: Variable Definitions, and Means for Both Samples. Intact Families Birth to Age 16, continued

Variable	Definition	Means in Both Samples	
		Disadvantage 7, Interest 11 (n=3072)	Disadvantage 11, Interest 16 (n=2658)
<u>Parental/Household Measures</u>			
Owner-Occupied Home	Family lived in an owner occupied home, versus public and privately rented housing (1,0)		
Age 7 - Age 11	Number of waves between Age 7 and Age 11 in an owner-occupied home (0 – 2)	1.03	-----
Age 7 - Age 16	Number of waves between Age 7 and Age 11 in an owner-occupied home (0 – 3)	-----	1.65
Number in Household	Number of People in the Household (0 to 8)		
Age 7 - Age 11	Average number of people in the household between age 7 and age 11 (2.5 – 8)	4.94	-----
Age 7 - Age 16	Average number of people in the household between age 7 and age 16 (2.7 – 8)	-----	4.83
Residential Mobility			
Birth - Age 11	Number of times family moved from birth to age 11 (0 – 9)	1.31	-----
Birth - Age 16	Number of times family moved from birth to age 16 (0 – 9)	-----	1.52
<u>Child Level Measures</u>			
Sex	Respondent is Male (1,0)	0.497	0.495
High Child Aggression	Parents were asked to rate whether their child fought with other children, were irritable, destructive, or disobedient (scale is frequently, sometimes or never). Items were summated, Range is 0-8. High aggression is defined having a score of 4 to 8 (? 75 th percentile). (1,0)		
Age 7 - Age 11	Number of waves that the child had high aggression, age 7 to age 11 (0 – 2).	0.224	-----
Age 7 - Age 16	Number of waves that the child had high aggression, age 7 to age 16 (0 – 3).	-----	0.238
High Child Anxiety	Parents were asked to rate whether their child was a worrier, a loner, miserable or tearful, or afraid of new situations (scale is frequently, sometimes or never). Items were summated, Range is 0-8. High anxiety is defined having a score of 4 to 8 (? 75 th percentile). (1,0)		
Age 7 - Age 11	Number of waves that the child had high anxiety, age 7 to age 11 (0 – 2).	0.347	-----
Age 7 - Age 16	Number of waves that the child had high anxiety, age 7 to age 16 (0 – 3).	-----	0.447
Poor Reading Ability	At age 7: Teacher rated respondent as being a poor reader, as compared to average and above average readers (1,0). At age 11: Child scored in lowest quartile on reading comprehension test (1,0). At age 16: Child's English reading ability is considered below average by teacher (1,0)		
Age 7 -Age 11	Number of waves that the child was a poor reader, age 7 to age 11 (0 – 2)	0.300	-----
Age 7 - Age 16	Number of waves that the child was a poor reader, age 7 to age 16 (0 – 3)	-----	0.409

Appendix - Tables

TABLE 3: The Impact of Financial Disadvantage at Age 7 and Paternal Involvement at Age 11 on Likelihood of Having No Qualifications (Odds Ratios)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Family Experienced Financial Difficulty, Age 7	6.361 ^{***} (1.264)	<i>3.161</i> ^{***} (0.371)	<i>1.265</i> (0.322)	5.279 ^{***} (1.077)	<i>1.450</i> (0.363)	<i>1.488</i> (0.371)	<i>1.252</i> (0.320)
Father Interest in Education, Age 11		0.232 ^{***} (0.023)	0.402 ^{***} (0.046)				0.414 ^{***} (0.047)
Frequency of Father Outings with Child, Age 11				0.518 ^{***} (0.051)	0.691 ^{***} (0.077)		0.772 ^{**} (0.087)
<u>Parent/Household Measures</u>							
Young Parents at Birth			1.498 (0.406)		1.851 ^{**} (0.494)	1.802 ^{**} (0.479)	1.521 (0.413)
Father Left School at Young Age			1.362 (0.290)		1.578 ^{**} (0.329)	1.558 ^{**} (0.324)	1.382 (0.294)
Mother Left School at Young Age			1.428 ^{***} (0.253)		1.474 ^{**} (0.257)	1.489 ^{**} (0.260)	1.403 [*] (0.248)
Low Social Class, Measured from Birth to Age 11			1.217 ^{***} (0.089)		1.243 ^{***} (0.090)	1.255 ^{***} (0.091)	1.211 ^{***} (0.089)
Owner-Occupied Home, Measured at Age 7 and Age 11			0.739 ^{***} (0.071)		0.666 ^{***} (0.062)	0.655 ^{***} (0.061)	0.744 ^{***} (0.071)
Average Number in Household, Age 7 & 11			1.127 ^{**} (0.063)		1.178 ^{***} (0.066)	1.213 ^{***} (0.067)	1.105 [*] (0.063)
Number of Times Family Moved, Birth to Age 11			1.034 (0.059)		1.026 (0.058)	1.028 (0.058)	1.033 (0.060)
<u>Child Level Measures</u>							
Cohort Member is Male			0.540 ^{***} (0.083)		0.548 ^{***} (0.083)	0.544 ^{***} (0.082)	0.543 ^{***} (0.083)
High Child Aggression, Measured at Age 7 and Age 11			1.319 ^{**} (0.174)		1.397 ^{**} (0.182)	1.446 ^{***} (0.187)	1.289 [*] (0.171)
High Child Anxiety, Measured at Age 7 and Age 11			0.857 (0.117)		0.830 (0.112)	0.835 (0.112)	0.855 (0.118)
Low Reading Ability, Measured at Age 7 and Age 11			2.693 ^{***} (0.264)		3.240 ^{***} (0.305)	3.272 ^{***} (0.307)	2.691 ^{***} (0.264)
LR Chi Square (df)	70.03 (1)	327.30 (2)	520.14 (13)	113.11 (2)	461.80 (13)	450.88 (12)	525.33 (14)
Log Likelihood	-874.62	-745.98	-649.56	-853.08	-678.73	-684.19	-646.97
Pseudo R-Square	0.039	0.180	0.286	0.062	0.254	0.248	0.289
AIC [†]	1753.24	1497.96	1327.12	1712.16	1385.46	1394.38	1323.94

* p < .10; ** p < .05; *** p < .01 (Standard errors in parentheses). N=3072

† df = k+1, where k is the number of parameters (Standard errors in parentheses).

Financial disadvantage odds ratios in *italics* indicate a significant drop (p < .05) from Equation 1.

Appendix - Tables

TABLE 4: The Impact of Financial Disadvantage at Age 7 and Maternal Involvement at Age 11 on Likelihood of Having No Qualifications (Odds Ratios)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Family Experienced Financial Difficulty, Age 7	6.361*** (1.264)	4.334*** (0.906)	<i>1.372</i> (0.346)	5.219*** (1.067)	<i>1.409</i> (0.353)	<i>1.488</i> (0.371)	<i>1.314</i> (0.333)
Mother Interest in Education, Age 11		0.359*** (0.032)	0.552*** (0.058)				0.563*** (0.059)
Frequency of Mother Outings with Child, Age 11				0.517*** (0.054)	0.678*** (0.080)		0.713*** (0.084)
<u>Parent/Household Measures</u>							
Young Parents at Birth			1.615* (0.432)		1.888** (0.504)	1.802** (0.479)	1.677* (0.450)
Father Left School at Young Age			1.404 (0.294)		1.598** (0.334)	1.558** (0.324)	1.441* (0.303)
Mother Left School at Young Age			1.494** (0.262)		1.476** (0.258)	1.489** (0.260)	1.472** (0.259)
Low Social Class, Measured from Birth to Age 11			1.246*** (0.090)		1.245*** (0.090)	1.255*** (0.091)	1.239*** (0.090)
Owner-Occupied Home, Measured at Age 7 and Age 11			0.700*** (0.071)		0.665*** (0.062)	0.655*** (0.061)	0.707*** (0.067)
Average Number in Household, Age 7 & 11			1.172*** (0.065)		1.181*** (0.066)	1.213*** (0.067)	1.146** (0.064)
Number of Times Family Moved, Birth to Age 11			1.022 (0.058)		1.030 (0.058)	1.028 (0.058)	1.025 (0.059)
<u>Child Level Measures</u>							
Cohort Member is Male			0.544*** (0.083)		0.532*** (0.081)	0.544*** (0.082)	0.533*** (0.082)
High Child Aggression, Measured at Age 7 and Age 11			1.348** (0.178)		1.408*** (0.183)	1.446*** (0.187)	1.322** (0.174)
High Child Anxiety, Measured at Age 7 and Age 11			0.856 (0.116)		0.836 (0.113)	0.835 (0.112)	0.857 (0.117)
Low Reading Ability, Measured at Age 7 and Age 11			2.941*** (0.282)		3.222*** (0.303)	3.272*** (0.307)	2.905*** (0.279)
LR Chi Square (df)	70.03 (1)	217.03 (2)	483.79 (13)	108.21 (2)	461.62 (13)	450.88 (12)	491.89 (14)
Log Likelihood	-874.62	-801.12	-667.74	-855.53	-678.82	-684.19	-663.69
Pseudo R-Square	0.039	0.119	0.266	0.060	0.254	0.248	0.270
AIC [†]	1753.24	1608.24	1363.48	1717.06	1385.64	1394.38	1357.38

* p < .10; ** p < .05; *** p < .01 (Standard errors in parentheses). N=3072

[†] df = k+1, where k is the number of parameters (Standard errors in parentheses).

Financial disadvantage odds ratios in *italics* indicate a significant drop (p < .05) from Equation 1

Appendix - Tables

TABLE 5: The Impact of Financial Disadvantage at Age 11 and Paternal Involvement at Age 16 on Likelihood of Having No Qualifications (Odds Ratios)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Family Experienced Financial Difficulty, Age 11	3.514 ^{***} (0.749)	2.060 ^{***} (0.488)	<i>1.066</i> (0.307)	3.515 ^{***} (0.749)	<i>1.167</i> (0.329)	<i>1.167</i> (0.328)	<i>1.049</i> (0.303)
Father Interest in Education, Age 16		0.171 ^{***} (0.021)	0.325 ^{***} (0.046)				0.319 ^{***} (0.046)
Getting Along with Father, Age 16				0.918 (0.083)	1.000 (0.108)		1.120 (0.124)
<u>Parent/Household Measures</u>							
Young Parents at Birth			1.600 (0.508)		1.978 ^{**} (0.601)	1.978 ^{**} (0.599)	1.642 (0.523)
Father Left School at Young Age			1.449 (0.374)		1.682 ^{**} (0.420)	1.682 ^{**} (0.420)	1.446 (0.374)
Mother Left School at Young Age			1.079 (0.236)		1.107 (0.237)	1.107 (0.236)	1.086 (0.237)
Low Social Class, Measured from Birth to Age 16			1.035 (0.083)		1.061 (0.083)	1.061 (0.083)	1.038 (0.089)
Owner-Occupied Home, Measured at Age 7, Age 11, and Age 16			0.914 (0.074)		0.826 ^{**} (0.063)	0.826 ^{**} (0.063)	0.914 (0.074)
Average Number in Household, Age 7, 11 & 16			1.174 ^{**} (0.089)		1.270 ^{***} (0.093)	1.270 ^{***} (0.093)	1.178 ^{**} (0.089)
Number of Times Family Moved, Birth to Age 16			1.030 (0.063)		1.012 (0.060)	1.012 (0.060)	1.036 (0.064)
<u>Child Level Measures</u>							
Cohort Member is Male			0.502 ^{***} (0.099)		0.465 ^{***} (0.090)	0.465 ^{***} (0.090)	0.502 ^{***} (0.099)
High Child Aggression, Measured at Age 7, Age 11, and Age 16			1.316 [*] (0.191)		1.363 ^{**} (0.192)	1.363 ^{**} (0.191)	1.324 [*] (0.192)
High Child Anxiety, Measured at Age 7, Age 11, and Age 16			0.838 (0.114)		0.795 [*] (0.105)	0.795 [*] (0.105)	0.843 (0.115)
Low Reading Ability, Measured at Age 7, Age 11, and Age 16			3.113 ^{***} (0.290)		3.776 ^{***} (0.339)	3.776 ^{***} (0.339)	3.100 ^{***} (0.289)
LR Chi Square (df)	28.38 (1)	293.52 (2)	515.30 (13)	29.27 (2)	446.69 (13)	446.69 (12)	516.37 (14)
Log Likelihood	-659.83	-527.26	-416.37	-659.38	-450.67	-450.67	-415.83
Pseudo R-Square	0.021	0.218	0.382	0.022	0.331	0.331	0.383
AIC [†]	1322.66	1060.52	860.74	1324.76	929.34	927.34	861.66

* p < .10; ** p < .05; *** p < .01 (Standard errors in parentheses). N=2658

† df = k+1, where k is the number of parameters (Standard errors in parentheses).

Financial disadvantage odds ratios in *italics* indicate a significant drop (p < .05) from Equation 1.

Appendix - Tables

TABLE 6: The Impact of Financial Disadvantage at Age 11 and Maternal Involvement at Age 16 on Likelihood of Having No Qualifications (Odds Ratios)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Family Experienced Financial Difficulty, Age 11	3.514 ^{***} (0.749)	2.273 ^{***} (0.533)	<i>1.087</i> (0.314)	3.516 ^{***} (0.749)	<i>1.167</i> (0.329)	<i>1.167</i> (0.328)	<i>1.07</i> (0.311)
Mother Interest in Education, Age 16		0.196 ^{***} (0.023)	0.375 ^{***} (0.052)				0.367 ^{***} (0.051)
Getting Along with Mother, Age 16				0.959 (0.099)	1.000 (0.120)		1.142 (0.144)
<u>Parent/Household Measures</u>							
Young Parents at Birth			1.688* (0.530)		1.978** (0.599)	1.978** (0.599)	1.697* (0.533)
Father Left School at Young Age			1.477 (0.379)		1.682** (0.420)	1.682** (0.420)	1.463 (0.376)
Mother Left School at Young Age			1.038 (0.236)		1.107 (0.236)	1.107 (0.236)	1.035 (0.225)
Low Social Class, Measured from Birth to Age 16			1.059 (0.084)		1.061 (0.083)	1.061 (0.083)	1.061 (0.084)
Owner-Occupied Home, Measured at Age 7, Age 11, and Age 16			0.896 (0.072)		0.826** (0.063)	0.826** (0.063)	0.896 (0.072)
Average Number in Household, Age 7, 11 & 16			1.193** (0.090)		1.270*** (0.093)	1.270*** (0.093)	1.196** (0.091)
Number of Times Family Moved, Birth to Age 16			1.002 (0.061)		1.012 (0.060)	1.012 (0.060)	1.005 (0.061)
<u>Child Level Measures</u>							
Cohort Member is Male			0.495 ^{***} (0.097)		0.465 ^{***} (0.090)	0.465 ^{***} (0.090)	0.491 ^{***} (0.097)
High Child Aggression, Measured at Age 7, Age 11, and Age 16			1.319* (0.191)		1.363** (0.192)	1.363** (0.191)	1.328* (0.193)
High Child Anxiety, Measured at Age 7, Age 11, and Age 16			0.845 (0.115)		0.795* (0.105)	0.795* (0.105)	0.846 (0.115)
Low Reading Ability, Measured at Age 7, Age 11, and Age 16			3.159 ^{***} (0.294)		3.776 ^{***} (0.339)	3.776 ^{***} (0.339)	3.145 ^{***} (0.293)
LR Chi Square (df)	28.38 (1)	261.54 (2)	499.97 (13)	28.55 (2)	446.69 (13)	446.69 (12)	501.10 (14)
Log Likelihood	-659.83	-543.25	-424.03	-659.74	-450.67	-450.67	-423.47
Pseudo R-Square	0.021	0.194	0.371	0.021	0.331	0.331	0.372
AIC [†]	1322.66	1092.52	876.06	1325.48	929.34	927.34	876.94

* p < .10; ** p < .05; *** p < .01 (Standard errors in parentheses). N=2658

† df = k+1, where k is the number of parameters (Standard errors in parentheses).

Financial disadvantage odds ratios in *italics* indicate a significant drop (p < .05) from Equation 1.