



Family Structure and Children's Achievement

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Family Structure and Achievement Objectives

This paper uses *Growing Up in Ireland* data to:

- explore the association between family structure and children's achievement
- examine the extent to which individual, familial, school and neighbourhood factors mediate this association



Family Structure and Achievement Research overview

- 'Non-traditional' family structures is associated with a host of poor outcomes for children including:
 - Lower test scores
 - Lower school completion rates
 - Internalising problems such as depression and anxiety
 - Externalising problems such as aggression and hyperactivity
- Some of these effects are short-lived, pronounced only during a period of transition (e.g. separation, divorce, remarriage) while others are more enduring and persist well into adulthood



Family Structure and Achievement

Theoretical explanations

- Social selection
- Reduced economic and other resource
- Reduced parental time and attention
- Increased family conflict and stress



Family Structure and Achievement Measures

- **Achievement:**
Standardized reading and math scores
- **Family structure:**
Intact- married, intact- cohabiting, continuously single-mother, divorced, separated single-mother, stepfather
- **Family characteristics:**
Number of children, resident half/step-sibling(s) or grand parent(s)
- **Child characteristics:**
Gender, breastfed, chronic illness, learning difficulty, 'difficult' temperament, '*always likes reading*', '*always likes math*'
- **Maternal characteristics:**
Maternal age, mother has a degree
- **School and neighbourhood characteristics:**
Child attends a school designated as disadvantaged, level of neighbourhood disadvantage



Family Structure and Achievement Measures

- **Economic and other resources:**
Equivalised income quintiles, enforced deprivation, books in the home
- **Parental time and attention:**
Parenting style, third level aspirations
- **Family conflict and stress:**
Maternal depression, 'high conflict' in the mother-child relationship, number of stressful life events experienced by the child

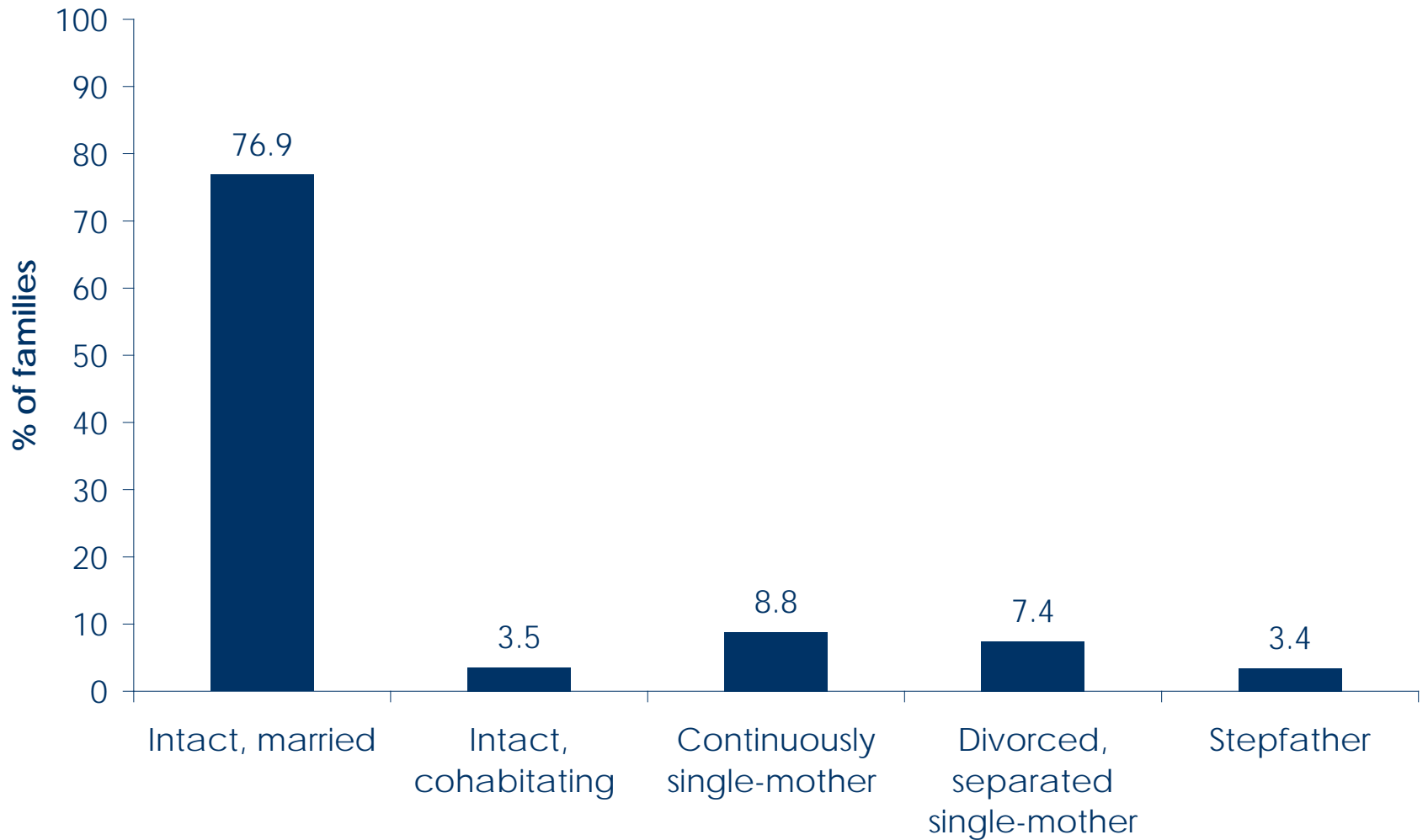


Family Structure and Achievement Data analysis

- Descriptive analysis:
- Multivariate analysis:
 - Model 1 traditional null model
 - Model 2 adds family structure
 - Model 3 adds family characteristics
 - Model 4 adds child characteristics
 - Model 5 adds maternal characteristics
 - Model 6 adds school and neighbourhood characteristics
 - Model 7 adds economic and other resources
 - Model 8 adds parental time and attention
 - Model 9 adds family conflict and stress



Descriptive Results: Children's family structure





Descriptive Results: Children's achievement

		Intact, married	Intact, cohabitating	Continuously single-mother	Divorced, separated single-mother	Stepfather	All
Attainment	Average standardized reading score	101.0 ^{***}	94.4 ^{***}	96.8 ^{***}	97.6 ^{***}	95.6 ^{***}	100.0
	Average standardized math score	101.3 ^{***}	94.0 ^{***}	94.9 ^{***}	96.6 ^{***}	96.1 ^{***}	100.0

* p<.05 ** p<.01 ***p<.001



Descriptive Results: Family and child characteristics

	Intact, married	Intact, cohabitating	Continuously single-mother	Divorced, separated single-mother	Stepfather	All	
Family	(% number of children:						
	1 child	4.5***	14.8***	41.5***	8.6***	23.6***	9.1
	2 children	31.1	39.5	32.9	34.0	33.8	31.9
	3 children	36.2***	24.2***	14.9***	29.4***	25.4***	33.0
	4 children	19.1***	9.5***	8.9***	18.5***	11.0***	17.5
	5 or more children	9.2***	12.0***	1.8***	9.4***	6.2***	8.5
	(% with step- or half-sibling(s)	2.5***	13.4***	14.3***	14.2***	42.6***	6.2
(% with resident grandparent	1.7***	3.5***	16.6***	1.7***	3.1***	3.1	
Child	(% male	52.5	45.2	47.6	50.0	50.2	51.5
	(% breastfed	47.4***	28.7***	32.0***	45.9***	33.6***	44.8
	(% with chronic illness	10.2*	11.6*	16.2*	13.6*	14.3*	11.1
	(% with learning difficulty	9.3	13.2	13.1	12.9	11.3	10.1
	(% with 'difficult' temperament	16.2*	23.2*	20.8*	24.1*	19.2*	16.0
	(% who always like reading	59.4	50.0	55.5	56.8	58.6	58.5
	(% who like always math	46.3	50.3	53.7	47.6	52.5	47.4
(% with four of more friends	51.2	51.7	50.8	45.8	52.4	50.8	

* p<.05 ** p<.01 ***p<.001



Descriptive Results: Mother, school, neighbourhood

	Intact, married	Intact, cohabitating	Continuously single-mother	Divorced, separated single-mother	Stepfather	All	
Mother	Average maternal age (years)	40.1***	35.1***	33.2***	39.1***	32.7***	39.0
	(%) of mothers with a degree	18.9***	6.5***	10.5***	12.8***	11.9***	17.0
School and neighbourhood	(%) of children attending schools designated as being disadvantaged	14.7***	40.6***	34.8***	25.2***	26.8***	18.6
	(%) of relevant population in the neighbourhood who a) were classified as being in the 'unskilled' social class b) whose education ceased at lower secondary or less c) who are unemployed, having given up or lost a job	46.8***	53.1***	52.3***	49.5***	50.8***	47.8

* p<.05 ** p<.01 ***p<.001



Descriptive Results: Economic and other resources

	Intact, married	Intact, cohabitating	Continuously single-mother	Divorced, separated single- mother	Stepfather	All
(%) Income quintile:						
First (lowest)	14.6***	29.8***	40.5***	42.8***	21.4***	20.0
Second	18.5**	23.4**	25.9**	26.2**	22.2**	20.0
Third	20.8*	19.2*	16.7*	15.5*	18.6*	20.0
Fourth	22.8***	15.2***	11.6***	8.2***	15.2***	20.0
Fifth (highest)	23.3***	12.4***	5.3***	7.4***	22.7***	20.0
(%) experiencing deprivation	2.8***	6.3***	12.2***	14.5***	4.1***	4.6
(%) Books in the home:						
Low (ten or less)	8.5***	14.8***	18.3***	14.1***	17.1***	10.3
Medium (11-19)	17.1**	27.1**	20.7**	25.7**	21.6**	18.6
High (20 or more)	74.4***	58.1***	61.0***	60.2***	61.3***	71.2

* p<.05 ** p<.01 ***p<.001



Descriptive Results: Parental time and attention

	Intact, married	Intact, cohabitating	Continuously single-mother	Divorced, separated single-mother	Stepfather	All	
Parental time and attention	(% Parenting style of mother:						
	Authoritative	77.1	74.5	78.4	72.9	81.0	76.9
	Authoritarian	4.1	5.0	5.2	5.0	3.4	4.3
	Permissive	16.5	16.7	13.7	17.4	14.5	16.3
	Neglectful	2.3	3.8	2.6	4.7	1.0	2.5
	(% of mothers with aspirations for their child to go on to third level						
	73.7***	56.0***	63.6***	66.1***	59.7***	71.2	

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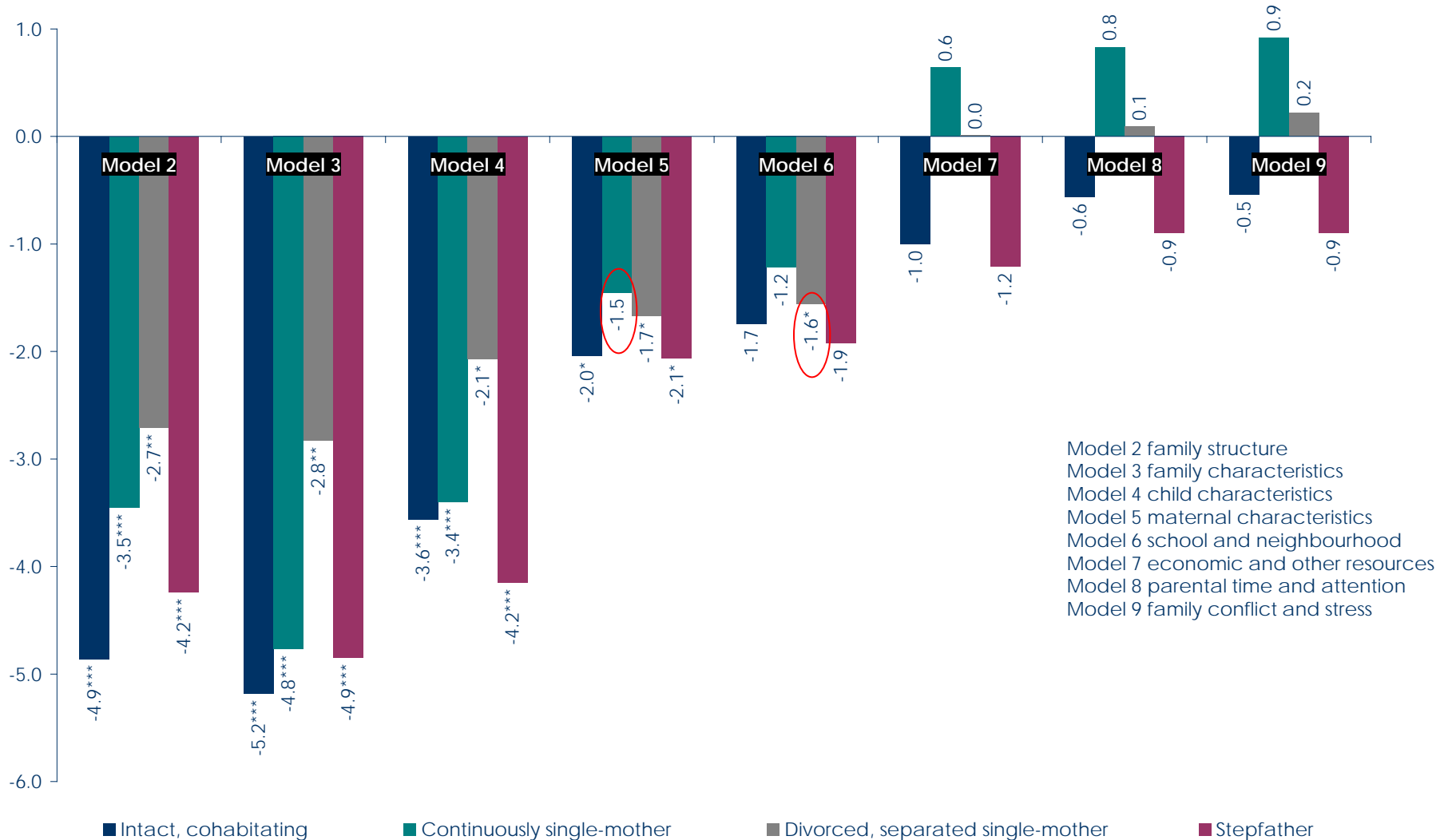


Descriptive Results: Family conflict and stress

	Intact, married	Intact, cohabitating	Continuously single-mother	Divorced, separated single-mother	Stepfather	All
Family conflict and stress (%) of mothers classified as 'depressed'	6.9***	11.3***	15.8***	20.5***	12.0***	9.0
(%) of mother-child relationships classified as 'highly conflicted'	14.4***	19.9***	23.1***	24.8***	17.2***	16.3
Average number of stressful life events experienced by the child	1.7***	2.0***	3.2***	3.4***	3.0***	2.0

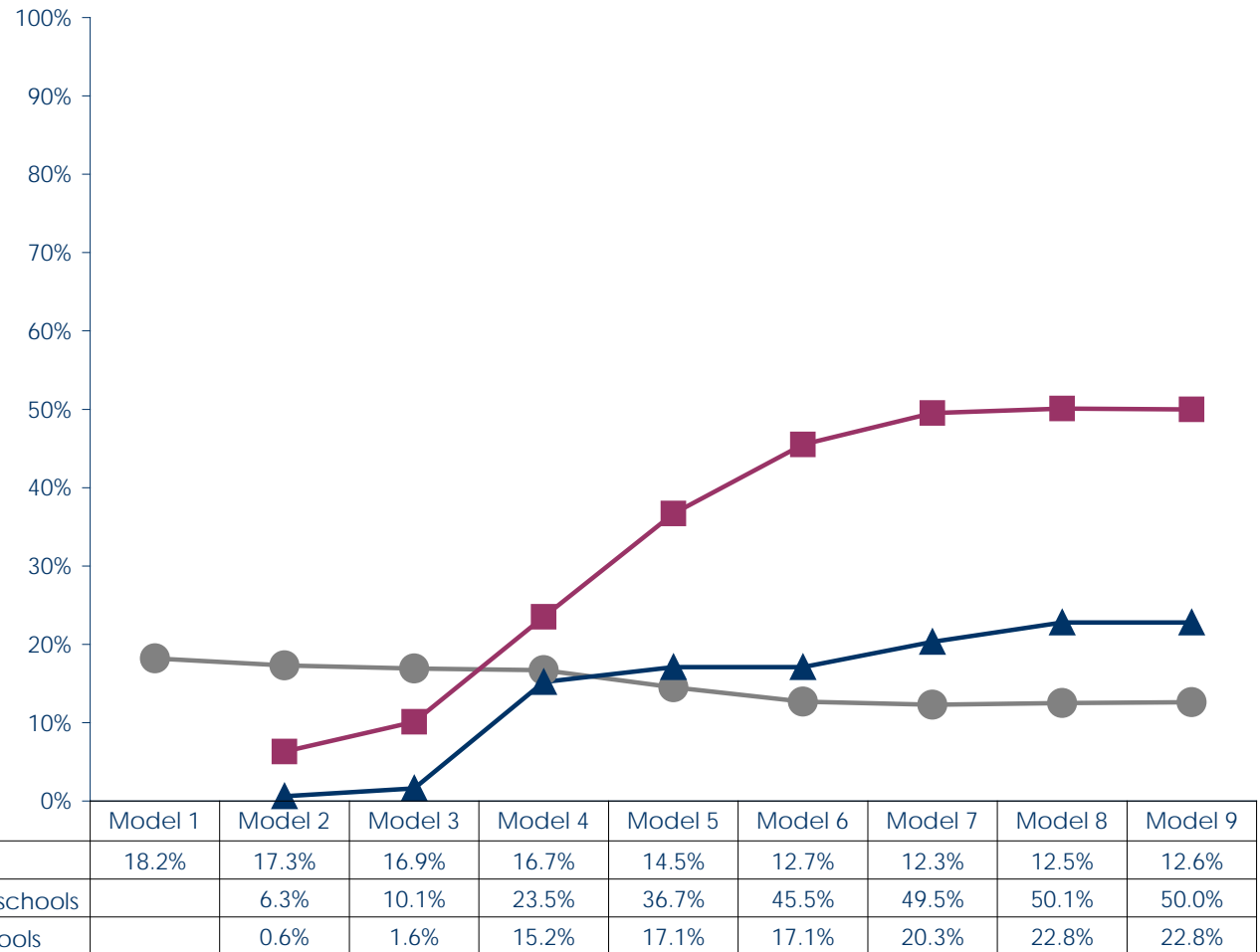
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Multivariate Results: Family Structure and Reading





Multivariate Results: Family Structure and Reading



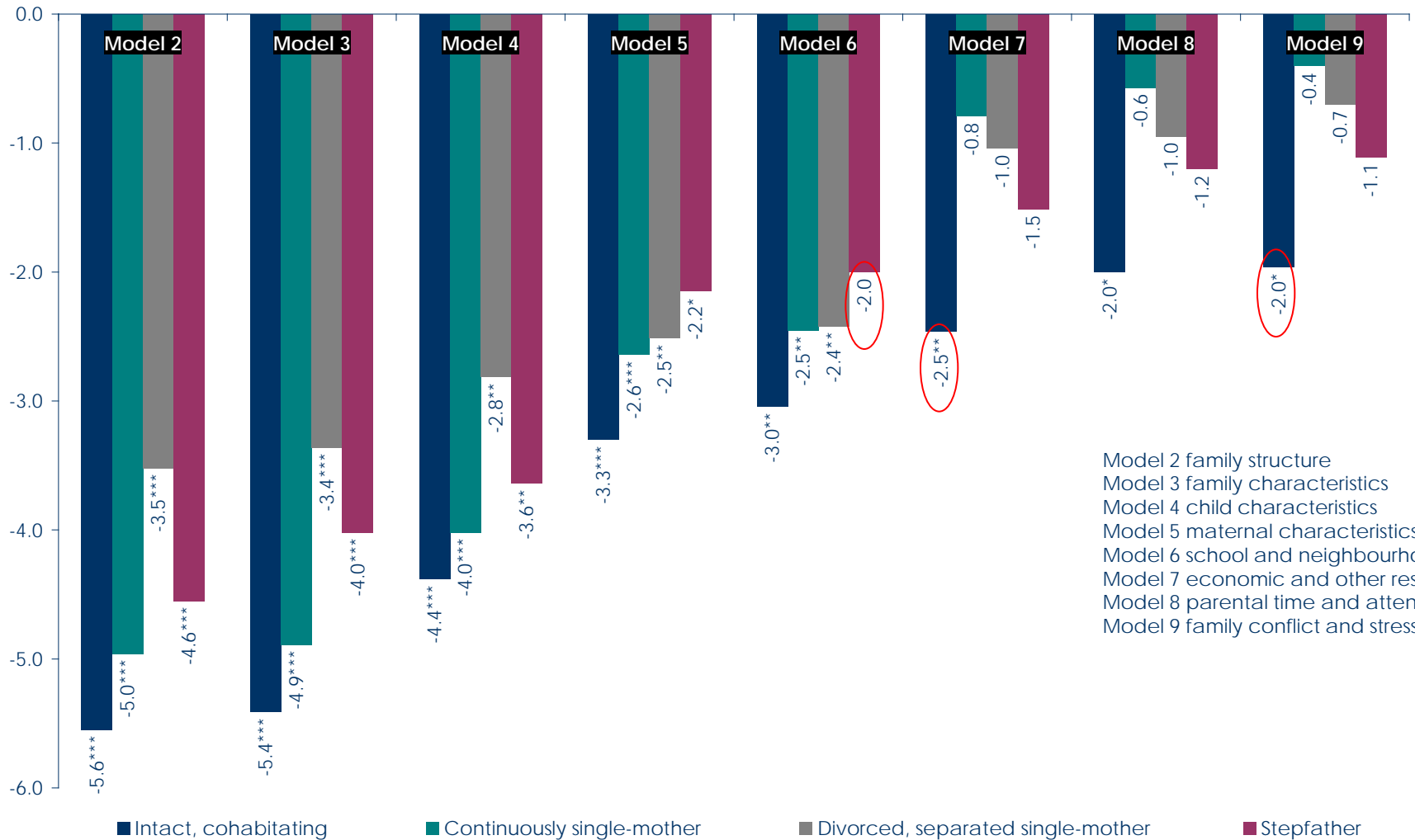
—●— Intraclass correlation

—■— Variation explained between schools

—▲— Variation explained within schools



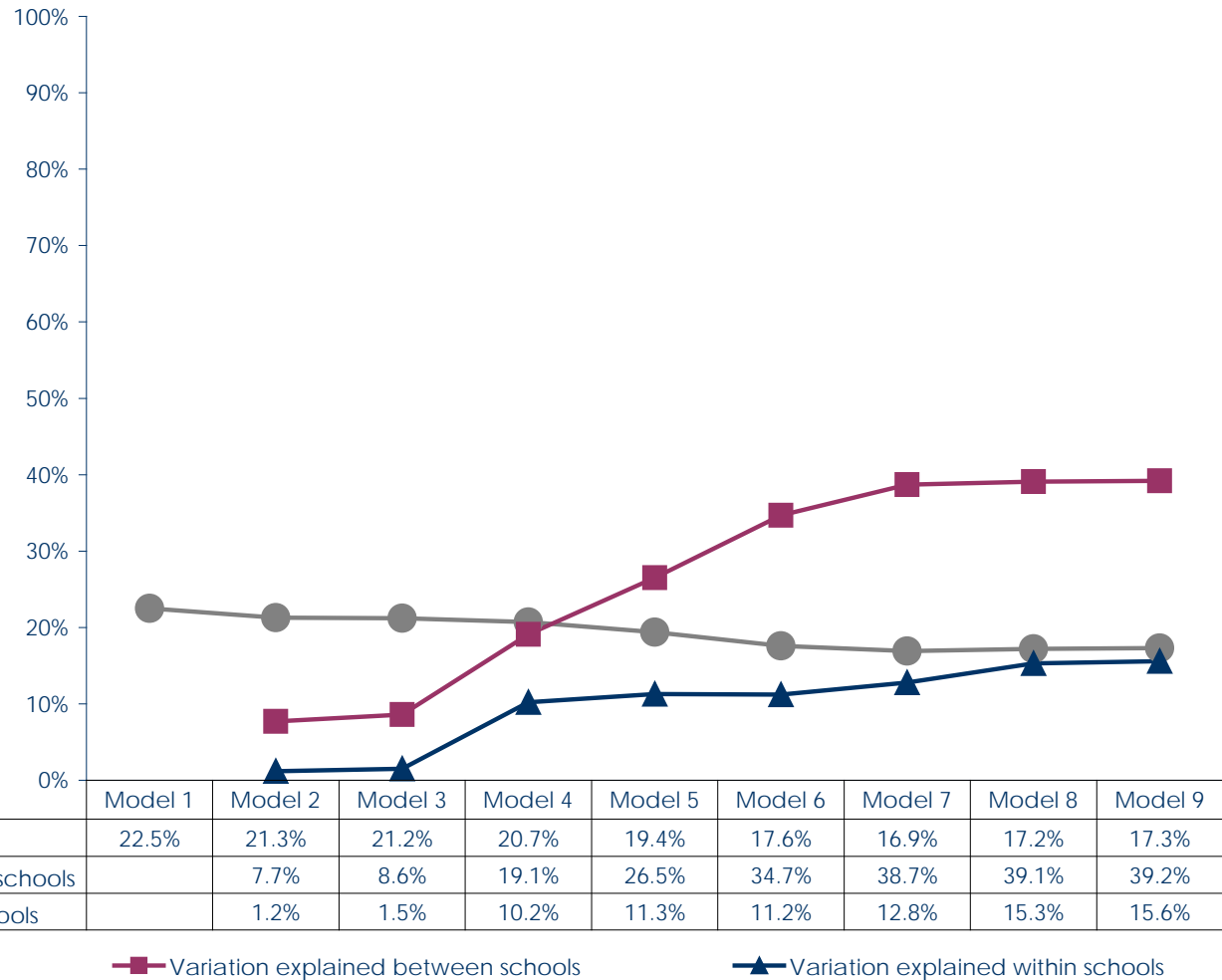
Multivariate Results: Family Structure and Math



Model 2 family structure
 Model 3 family characteristics
 Model 4 child characteristics
 Model 5 maternal characteristics
 Model 6 school and neighbourhood
 Model 7 economic and other resources
 Model 8 parental time and attention
 Model 9 family conflict and stress



Multivariate Results: Family Structure and Math





Family Structure and Attainment Conclusion

In the final models:

- There was no significant differences in reading scores for children in non-traditional family structures.
- Significantly lower math scores persisted but only for children in intact, cohabiting families

Certain child, family, school and neighbourhood characteristics were associated with significantly better scores (i.e. smaller families, boys, breastfed children, children with no learning difficulty and easy temperaments, children whose mothers are older and have third level qualifications and children who attend or reside in more advantaged schools and neighbourhoods)



Family Structure and Attainment Conclusion

Economic and other resources variables:

- Income and books in the home were positively associated with reading and math scores

Parental time and attention variables:

- A neglectful parenting style and third level aspirations

Family conflict and stress variables:

- Generally had no effect, however there was one exception to this (i. e. conflict in the parent-child relationship and math scores)



Growing Up
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