



**Growing Up
in Ireland**
National Longitudinal
Study of Children



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THE LIVES OF 13-YEAR-OLDS

CHILD COHORT



REPORT 6

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CONTENTS

ACKNOWLEDGEMENTS	3
LIST OF FIGURES	8
LIST OF TABLES	12
EXECUTIVE SUMMARY	13
1 Introduction	13
2 Family Structure and Economic Circumstances	13
2.1 Family structure	13
2.2 Family economic circumstances	14
3 Health and Maturation	15
3.1 Health	15
3.2 Weight status and physical activity	15
4 Education and Cognitive Development	16
4.1 Education – the 13-year-old’s perspective	16
4.2 Parent perspectives on education	16
4.3 Cognitive outcomes	17
5 Emotional well-being	17
6 Peer relationships and friendship networks	18
7 Antisocial and risky behaviours of 13-year-olds	18
8 Next steps in <i>Growing Up in Ireland’s</i> Child Cohort	19
CHAPTER ONE: INTRODUCTION	21
1.1 Introduction	22
1.2 What is interesting about age 13?	22
1.3 Objectives of <i>Growing Up in Ireland</i>	23
1.4 Underlying conceptual framework	25
1.5 Data and methodology	26
1.5.1 The sample at the second round of interviewing	26
1.5.2 Response rates, inter-wave attrition and reweighting the data	27
1.5.3 Background family characteristics	27
1.5.4 The socio-emotional and behavioural well-being of the 13-year-olds	28
1.5.5 Presenting findings and statistical significance	29
1.6 Content and organisation of the report	31
CHAPTER TWO: THE FAMILY CIRCUMSTANCES OF 13-YEAR-OLDS	33
2.1 Introduction	34
2.2 The family characteristics of 13-year-olds	34
2.3 Socio-economic status of the 13-year-olds’ families	40
2.4 Parental employment and work-life balance at 9 and 13 years	41
2.5 Family income and financial stress	45
2.5.1 Variations in family income	45
2.6 Economic strain and the recession	47
2.7 Summary	50

CHAPTER THREE: PHYSICAL HEALTH AND MATURATION AMONG 13-YEAR-OLDS	51
3.1 Introduction	52
3.2 Physical health	52
3.3 Chronic illness	54
3.3.1 Social class and chronic illness	54
3.4 Accidents in the last year	55
3.5 Medical card cover	56
3.6 Maturation	58
3.6.1 Girls and maturation	58
3.6.2 Boys and maturation	61
3.7 Summary	66
CHAPTER FOUR: WEIGHT STATUS AND ACTIVITIES	67
4.1 Weight status (Body Mass Index, BMI)	68
4.1.1 Weight status at 13 years	68
4.1.2 Change in weight status since 9 years	68
4.1.3 Weight status and physical health	70
4.1.4 Weight status, perception of weight and body image	71
4.2 Weight status and dieting	75
4.2.1 Weight status, gender and weight monitoring behaviours	75
4.2.2 Dieting behaviours	75
4.2.3 Weight status, weight perception and dieting behaviours	76
4.3 Physical activity at age 13	77
4.3.1 Hard exercise in the past 14 days	78
4.3.2 Changes in exercise levels from age 9 to 13	80
4.4 Sedentary activity	81
4.4.1 Sedentary activity and gender	81
4.4.2 Sedentary activity and social class	82
4.4.3 Weight status and screen time	83
4.4.4 Sedentary activity and eating habits	84
4.5 Internet access and supervision	85
4.6 Other activities	86
4.7 Summary	88
CHAPTER FIVE: THE 13-YEAR-OLD'S PERSPECTIVE ON EDUCATION	89
5.1 Introduction	90
5.2 Teacher-student interaction	90
5.3 Misbehaviour	92
5.4 Attitudes to school	95
5.5 Attitudes to school subjects	97
5.6 Homework	101
5.7 Academic self-image and educational expectations	103

CHAPTER SIX: PARENTAL PERSPECTIVES ON EDUCATION	109
6.1 Introduction	110
6.2 School choice and second-level education	110
6.3 Parental perceptions of the transition to second-level education	112
6.4 Parental involvement in education	117
6.5 School attendance	121
6.6 Parental expectations	122
6.7 Summary	124
CHAPTER SEVEN: COGNITIVE OUTCOMES AT 13 YEARS	125
7.1 Introduction	126
7.2 Cognitive tests used in <i>Growing Up in Ireland</i>	126
7.2.1 Drumcondra Reasoning Test	126
7.2.2 British Ability Scales Matrices Subtest	126
7.2.3 Ability and achievement	126
7.3 Variations in cognitive ability scores by family characteristics	127
7.3.1 Primary Caregiver's education	127
7.3.2 Family social class, income and immigrant status	127
7.3.3 Family type	128
7.4 Variations in cognitive ability scores by characteristics of 13-year-old	129
7.4.1 Gender	129
7.4.2 Special Educational Needs	130
7.4.3 Performance on tests at 9 and 13 years	131
7.4.4 Engagement with school	132
7.4.5 Engagement with specific subjects	133
7.4.6 Engagement with specific subjects at 13 years	134
7.5 Summary	135
CHAPTER EIGHT: EMOTIONAL AND BEHAVIOURAL OUTCOMES – RELATIONSHIP WITH PARENTS	137
8.1 Introduction	138
8.2 The measure of socio-emotional and behavioural well-being	138
8.3 Social, emotional and behavioural outcomes at 9 years	139
8.3.1 Gender and social, emotional and behavioural outcomes	139
8.4 Family circumstances, socio-emotional and behavioural outcomes at 13	140
8.5 Family relationships and child outcomes	141
8.5.1 The parental relationship and socio-emotional outcomes at 13	142
8.5.2 Longitudinal trends	142
8.5.3 The parent-child relationship and socio-emotional outcomes	143
8.6 Parental monitoring and child disclosure	144
8.6.1 Child gender and monitoring and disclosure	145
8.7 Parenting style and child outcomes	147
8.8 Stressful life events	148
8.8.1 Stressful life events and emotional and behavioural outcomes	149
8.9 Summary	150

CHAPTER NINE: EMOTIONAL AND BEHAVIOURAL OUTCOMES – RELATIONSHIP WITH PEERS	151
9.1 Introduction	152
9.2 Friendship and peer interaction	153
9.2.1 Friendship networks	153
9.2.2 Friendship networks and socio-emotional well-being	153
9.3 Bullying and victimisation: experiences and consequences	154
9.3.1 Frequency of being bullied	155
9.3.2 The form of and perceived reasons for bullying	157
9.3.3 Feelings associated with being bullied and confiding in someone about it	158
9.3.4 Perpetrators of bullying	158
9.3.5 Socio-emotional well-being and bullying	158
9.4 Self-concept	159
9.4.1 Variations in self-concept with background characteristics	161
9.4.2 Self-concept and experience of bullying	161
9.5 Mood and feelings – bullying and self-esteem	163
9.5.1 Gender and depressive symptoms	163
9.5.2 Socio-emotional and behavioural difficulties at 9 and depressive symptoms at 13	163
9.5.3 Bullying and depressive symptoms	164
9.5.4 Family characteristics and depressive symptoms	165
9.6 Summary	166
CHAPTER TEN: ANTISOCIAL AND RISKY BEHAVIOURS AMONG 13-YEAR-OLDS	167
10.1 Introduction	168
10.2 Antisocial behaviours among 13-year-olds	168
10.2.1 Prevalence of antisocial behaviour among 13-year-olds – the parent’s perspective	169
10.2.2 Prevalence of antisocial behaviour – the 13-year-old’s perspective	170
10.3 Prevalence of risky behaviours – smoking, drinking and illicit drug-taking	172
10.3.1 Being in trouble with the Gardaí (police)	173
10.3.2 Smoking, drinking and drugs	174
10.4 Summary	178
CHAPTER ELEVEN: CONCLUSIONS AND POLICY IMPLICATIONS	179
11.1 Introduction	180
11.2 The National Policy Framework	180
11.3 Outcome One: Active and healthy – physical and mental well-being	181
11.4 Outcome Two: Achieving full potential in learning and development	184
11.5 Outcome Three: Safe and protected from harm	185
11.6 Outcome Four: Economic security and opportunity	187
11.7 Outcome Five: Connected, respected and contributing to their world	188
11.8 Next steps in <i>Growing Up in Ireland’s</i> Child Cohort	188
11.9 Potential for further research	188
REFERENCES	190
GLOSSARY	212
APPENDIX	213

LIST OF FIGURES

Figure 1.1:	Bronfenbrenner’s ecological perspective on child development	26
Figure 2.1:	Type and size of families of Child Cohort at ages 9 and 13	36
Figure 2.2:	Summary of change in family composition between 9 and 13 years, classified by family type at 9 years	37
Figure 2.3:	Type of family of 13-year-olds in each family type by Primary Caregiver’s marital status	38
Figure 2.4:	Primary Caregiver’s educational attainment by type of family, at 13 years old	39
Figure 2.5:	Family social class by family type of 13-year-olds	39
Figure 2.6:	Labour-force status of Primary and Secondary Caregiver when Study Child was 9 and 13 (main activity status)	41
Figure 2.7:	Labour-force status of Primary Caregiver of 13-year-olds classified by family type and level of educational attainment	43
Figure 2.8:	Measures of work-life balance for Primary Caregivers classified by number of hours worked outside the home	45
Figure 2.9:	Median annual equivalised household income of families for children at 9 and 13 years of age, classified by family social class and Primary Caregiver’s education	46
Figure 2.10:	Family type of 13-year-olds classified by family equivalised income quintile	47
Figure 2.11:	Difficulties in making ends meet in families of children at 9 and 13 years of age	48
Figure 2.12:	Difficulties in making ends meet of families with children at 13 years of age, according to family type	48
Figure 2.13:	Effects of the recession on family income since the Study Child was 9 years old	49
Figure 3.1:	PCG report of child’s general health at age 9 and 13	52
Figure 3.2:	Changes in child’s general health between 9 and 13 years, based on PCG report	53
Figure 3.3:	PCG report of 13-year-old’s health by family social class	53
Figure 3.4:	Social class and chronic illness of the 13-year-olds	55
Figure 3.5:	Prevalence of accidents requiring hospital treatment or admission in the last year, classified by (a) gender and (b) family social class	55
Figure 3.6:	Medical health cover for 13-year-olds in <i>Growing Up in Ireland</i>	56
Figure 3.7:	Changes in medical-card status between 9 and 13 years of age	57
Figure 3.8:	Social class, Primary Caregiver’s education and age at menarche	59
Figure 3.9:	Number of stressful life events and age at menarche	60
Figure 3.10:	Weight status at 9 years and age at menarche	61
Figure 3.11:	Self-reported change in voice among 13-year-old boys by family social class	62
Figure 3.12:	Number of stressful life events and voice change	63
Figure 3.13:	Weight status at 9 years and voice change at 13	64
Figure 3.14:	Voice change and risk of socio-emotional and behavioural problems in boys	64
Figure 3.15:	Body image among 13-year-old boys, classified by voice change in boys	65
Figure 4.1:	Weight status at 13 years of age, classified by (a) gender and (b) family social class	69
Figure 4.2:	Weight status at age 13 by weight status at age 9	69
Figure 4.3:	Change in weight status of males and females between 9 and 13 years of age	70
Figure 4.4:	Weight status at 13 and occurrence of wheezing or whistling on chest in past year	70
Figure 4.5:	Perception of weight according to gender	71
Figure 4.6:	Perceptions of 13-year-olds of their weight status by their actual weight status	72
Figure 4.7:	Parents’ perception of 13-year-olds’ weight status, classified by the 13-year-old’s measured weight status	72
Figure 4.8:	Physical self-concept using the Piers-Harris subscale classified BMI	73

Figure 4.9:	Physical self-concept (per cent below average) classified by gender and actual weight status (BMI)	74
Figure 4.10:	Percentage of 13-year-olds 'at risk' of socio-emotional problems, by weight status	74
Figure 4.11:	Weight control behaviours classified by weight status and gender	75
Figure 4.12:	Dieting behaviours classified by gender	76
Figure 4.13:	Percentage of 13-year-olds using at least one dieting behaviour, by weight status and weight perception	77
Figure 4.14:	Number of days in last fortnight 13-year-old participated in hard exercise by gender, social class and being 'at risk' of socio-emotional and behavioural problems	78
Figure 4.15:	Percentage of overweight (including obese) 13-year-olds by number of days in last fortnight they participated in hard or light exercise	80
Figure 4.16:	Change in levels of hard exercise between ages 9 and 13	80
Figure 4.17:	Change in levels of hard exercise between ages 9 and 13, classified by (a) weight status and (b) gender	81
Figure 4.18:	Time spent by 13-year-olds on sedentary activities by gender	82
Figure 4.19:	Number of hours of TV watched by 13-year-olds by social class	82
Figure 4.20:	Proportion of 13-year-olds who have a television in their bedroom by social class	83
Figure 4.21:	Weight status of 13-year-olds and television watching on a weekday	83
Figure 4.22:	Snacking behaviour of 13-year-olds classified by social class	84
Figure 4.23:	Usual hours watching television and eating snacks/sweets or taking fizzy drinks once or more on previous day, controlling for social class	85
Figure 4.24:	Percentage of 13-year-olds who have internet access at home or at school	85
Figure 4.25:	Internet filtering and supervision, by gender	86
Figure 4.26:	Percentage of 13-year-olds involved in other informal and organised activities at least once a week	87
Figure 5.1:	Frequency of positive and negative interaction with teachers among 13-year-olds	91
Figure 5.2:	Percentage of 13-year-olds who reported being praised by their teachers for their schoolwork very often	91
Figure 5.3:	Percentage of 13-year-olds who reported being given out to by their teachers for misbehaviour 'a few times' or more frequently by gender, Primary Caregiver education, household income and SEN	92
Figure 5.4:	Level of misbehaviour at school in the last year by gender	93
Figure 5.5:	Level of misbehaviour at school by social class, Primary Caregiver's education, household income and family type	94
Figure 5.6:	Level of misbehaviour at school by attitude to school and to teacher at 9 years of age	94
Figure 5.7:	Percentage of 13-year-olds who liked school 'very much' by gender, household social class and Primary Caregiver's education	95
Figure 5.8:	Positive and negative interaction with teachers at age 9 by attitudes to school at 13 years of age	96
Figure 5.9:	Percentage of 13-year-olds who liked school 'very much' by attitudes to school, teacher, Reading, Maths and Irish at the age of 9	97
Figure 5.10:	Perceived difficulty of English, Irish, Maths and Science by gender	97
Figure 5.11:	Perceived difficulty of English, Irish, Maths and Science by special educational needs	98
Figure 5.12:	Perceived interest in English, Irish, Maths and Science by gender	100
Figure 5.13:	Time spent on homework at ages 9 and 13, as reported by Primary Caregivers and 13-year-olds	102
Figure 5.14:	Time spent on homework by gender, as reported by 13-year-olds	102
Figure 5.15:	Academic self-image of 13-year-olds by gender	103
Figure 5.16:	Mean academic self-image by family background	104

Figure 5.17:	Changes in academic self-image score between 9 and 13 years by school class at 13	104
Figure 5.18:	Expectations regarding highest qualifications young person will achieve, as reported by Primary Caregivers and 13-year-olds	105
Figure 5.19:	Educational expectations (as reported by 13-year-olds) by social class, Primary Caregiver's education and household income	106
Figure 5.20:	Expectations for higher education (as reported by 13-year-olds) by liking school, liking their teacher, and Reading and Maths performance at the age of 9	106
Figure 6.1:	Social class profile of 13-year-olds, by school sector	111
Figure 6.2:	Profile of 13-year-olds in school sectors, classified by Primary Caregiver's education	111
Figure 6.3:	Use of different approaches to transition across schools, highlighting the single most important approach	113
Figure 6.4:	Parental perceptions of settling into second-level education (per cent agreeing with positive statements)	114
Figure 6.5:	Parental perceptions of settling into second-level education (per cent disagreeing with negative statements)	114
Figure 6.6:	Perceived transition difficulties by characteristics of 13-year-olds	115
Figure 6.7:	Perceived transition difficulties by family background	115
Figure 6.8:	Transition difficulties by number of primary school friends in the new school and class	116
Figure 6.9:	Transition difficulties by Reading and Maths test scores (in quintiles) at 9 years of age	116
Figure 6.10:	Transition difficulties by attitudes to school and subjects at the age of 9	117
Figure 6.11:	Proportion of Primary Caregivers who always/almost always or often knew what was going on in relation to their child's education	118
Figure 6.12:	Frequency of Primary Caregivers helping child with homework at 9 years and at 13 years	119
Figure 6.13:	Proportion of Primary Caregivers reporting different forms of contact with their child's school in the last 12 months	120
Figure 6.14:	Number of days absent from school in last year at 9 and 13 years of age	121
Figure 6.15:	Level of educational expectations among Primary Caregivers at age 9 and at age 13	122
Figure 7.1:	Variation in cognitive scores at 13 by Primary Caregiver education	127
Figure 7.2:	Variation in cognitive scores at 13 by family social class	128
Figure 7.3:	Variation in cognitive scores at 13 by family income quintile	128
Figure 7.4:	Variation in cognitive scores at 13 by family type	129
Figure 7.5:	Cognitive performance on test scores by gender of 13-year-olds	129
Figure 7.6:	Test scores by Special Educational Need at 13 years	130
Figure 7.7:	Test scores at age 13 by test performance at 9 years	131
Figure 7.8:	Cognitive test scores at 13 years of age by academic self-concept at 9 years (Piers-Harris Intellectual Status subscale)	132
Figure 7.9:	Test scores at 13 years of age by academic self-concept at 13 years (Piers-Harris Intellectual Status subscale)	132
Figure 7.10:	Cognitive test scores at age 13 by school engagement at 9 years	133
Figure 7.11:	Cognitive test scores at 13 years by school engagement at that age	133
Figure 7.12:	Verbal Reasoning and Numerical Ability test scores at 13 years by engagement with specific subjects at 9 years	134
Figure 7.13:	Verbal Reasoning and Numerical Ability test scores by 13-year-old's view of difficulty of and interest in English and Mathematics at 13 years	134
Figure 8.1:	Percentage of 13-year-olds at risk of socio-emotional and behavioural problems by whether at risk at age 9	139

Figure 8.2:	SDQ 'at risk' status at age 13 by gender	140
Figure 8.3:	Percentage of 13-year-olds in 'at risk' category on the Total Difficulties score of the SDQ, classified by family type and Primary Caregiver education	140
Figure 8.4:	Odds ratios for heightened difficulties by household type, controlling for Primary Caregiver education, income and social class	141
Figure 8.5:	Per cent of 13-year-olds in SDQ 'at risk' range by whether parents separated since age 9	142
Figure 8.6:	Percentage of 13-year-olds with 'at risk' SDQ scores by conflict and closeness in parent-child relationship at age 13	144
Figure 8.7:	Ratio of girls to boys in high (top quintile) levels of monitoring, disclosure, and control	146
Figure 8.8:	Percentage of children at risk of socio-emotional and behavioural problems, by level of parental monitoring and level of child disclosure, as reported by Primary Caregiver	146
Figure 8.9:	Percentage of 13-year-olds at risk of socio-emotional and behavioural problems by whether parent demandingness, responsiveness and autonomy granting is in the lowest third	148
Figure 8.10:	Percentage of children experiencing different life events since Wave 1 (age 9) reported by parents	149
Figure 8.11:	Number of stressful life events in the last four years and 'at risk' Total Difficulties SDQ score at 13	150
Figure 9.1:	(a) Number of close friends and (b) whether or not parents have met them, classified by gender of the 13-year-old	153
Figure 9.2:	Peer network size and being at risk of socio-emotional and behavioural problems (SDQ)	154
Figure 9.3:	Prevalence of being bullied (child report) classified by (a) 13-year-old's gender and (b) family social class	155
Figure 9.4:	Forms of bullying experienced among those who reported being bullied classified by gender	157
Figure 9.5:	Relationship between being bullied and 'at risk' scores on the SDQ	159
Figure 9.6:	Distribution of scores of 13-year-old's self-concept subscales	160
Figure 9.7:	13-year-old's self-concept by gender – percentage below average	161
Figure 9.8:	Overall self-concept of 13-year-olds who had been bullied	162
Figure 9.9:	Percentage of 13-year-olds with a below-average self-concept, classified by whether or not they had been a victim of bullying	162
Figure 9.10:	Percentage of 13-year-olds with depressive symptoms by 'at risk' SDQ scores at age 9	164
Figure 9.11:	Percentage of 13-year-olds with depressive symptoms by whether or not they were a victim or perpetrator of bullying	164
Figure 9.12:	Percentage of 13-year-olds who report depressive symptoms by whether self-concept score is above or below average	165
Figure 9.13:	Percentage of 13-year-olds with depressive symptoms by family social class	165
Figure 10.1:	Percentage of 13-year-olds who reported ever having been in trouble with the Gardaí, classified by gender, Primary Caregiver's education and family social class	173
Figure 10.2:	Percentage of 13-year-olds who ever smoked a cigarette, classified by gender, Primary Caregiver's education and family social class	174
Figure 10.3:	Percentage of 13-year-olds who recorded that they currently smoked, classified by gender, Primary Caregiver's education and family social class	175
Figure 10.4:	Percentage of 13-year-olds who recorded that they ever had an alcoholic drink, classified by gender, Primary Caregiver's education and family social class	176

LIST OF TABLES

Table 1.1:	Examples of characteristics in <i>Growing Up in Ireland</i> by bioecological model layer	26
Table 1.2:	Irish and British means for the SDQ	29
Table 1.3:	Percentage of 13-year-olds in the 'at risk' groups for the overall SDQ measure and the subscales	29
Table 2.1:	Profile of Primary and Secondary Caregivers of 13-year-olds	35
Table 2.2:	Changes in family type between ages 9 and 13	37
Table 2.3:	Percentage of new births in family since Study Child was 9 years old, by transition type and overall	38
Table 2.4:	Changes in Primary Caregiver's labour-force status between the Study Child being 9 and 13 years of age	42
Table 2.5:	Hours worked outside the home by Primary and Secondary Caregiver when Study Child was 13 years old	43
Table 2.6:	Work-life balance/imbalance among Primary and Secondary Caregivers of 13-year-olds	44
Table 4.1:	Number of days on which the 13-year-old does hard and light exercise	79
Table 5.1:	Percentage finding subjects 'difficult' by family background, and Reading and Mathematics performance at the age of 9	99
Table 5.2:	Percentage finding subjects 'interesting' by family background, and Reading and Mathematics performance at the age of 9	101
Table 5.3:	Difference between 13-year-old's and Primary Caregiver's expectations by family background and cognitive performance at age 9	107
Table 6.1:	Proportion of Primary Caregivers who <i>never</i> helped with homework, by family characteristics	119
Table 6.2:	Absenteeism from school by family characteristics	122
Table 6.3:	Proportion of Primary Caregivers who expected a degree or higher qualification for their child, by family characteristics	123
Table 8.1:	Maximum, minimum and mean scores for closeness and conflict among Primary and Secondary Caregivers	143
Table 8.2:	Maximum, minimum and mean scores for demandingness, responsiveness and autonomy granting by the Primary and Secondary Caregivers	147
Table 9.1:	Relationship between parent's and 13-year-old's reports of bullying	156
Table 9.2:	Frequency of bullying classified by gender	157
Table 10.1:	Percentage of 13-year-olds engaging in antisocial behaviour at least once in last year, by 13-year-old's gender	170
Table 10.2:	Number of Conduct Disorder items engaged in by 13-year-olds by gender, based on Primary Caregiver's reports	170
Table 10.3:	Percentage of 13-year-olds engaging in antisocial behaviour at least once in last year (self-report), by 13-year-old's gender	171
Table 10.4:	Number of kinds of antisocial behaviour engaged in by the 13-year-olds (self-reported), by gender	172
Table 10.5:	Percentage of 13-year-olds who recorded having ever used cannabis, sniffed glue or used other illicit drugs (such as ecstasy, speed, heroin, methadone, crack or cocaine)	177

EXECUTIVE SUMMARY

1 INTRODUCTION

This report provides a descriptive analysis of the findings from detailed interviews with 13-year-olds and their parents in the *Growing Up in Ireland* study. The purpose of the report is to present a broad, comprehensive overview of the lives of the Child Cohort at age 13 and to describe how they are faring in important areas of their lives. Preliminary key findings from data collected at age 13 were published in November 2012. This report explores data from this wave of data collection in more detail and expands on the issues covered in those key findings. In the current report, findings are explored on a longitudinal basis, allowing insights into developmental trajectories for the cohort since the age of nine years. Exploration into interactions between multiple factors on the lives of young people are also presented, a type of analysis that was not possible in previous cross-sectional reports.

Growing Up in Ireland tracks the development of two nationally representative cohorts of children and young people: an Infant and a Child Cohort. This report focuses on the Child Cohort, an older group of just over 8,500 children, their families, teachers and school principals. They were first interviewed between September 2007 and March 2008, when the children were nine years of age. The young people and their families were re-interviewed at 13 years of age, between August 2011 and February 2012.

This report deals exclusively with families who remained in this cohort at age 13. This represents a final group of just over 7,400 children and their caregivers. Developmental outcomes in three broad areas of the 13-year-old's life are considered:

- Physical health and development
- Education and cognitive development
- Social, emotional and behavioural well-being

The descriptive account here examines how children's outcomes and well-being varied according to a range of salient characteristics in their lives, including gender, family type, income, social class and parental education. The outcomes for children are set in the context of the circumstances of the families and how these changed with the onset of the Great Recession.

2 FAMILY STRUCTURE AND ECONOMIC CIRCUMSTANCES

2.1 FAMILY STRUCTURE

Most 13-year-olds live in two-parent families (81 per cent) and most had no change in family structure since the age of nine. However, since the age of nine, some Study Children experienced significant change in the family, such as a change from two-parent to one-parent (5 per cent), from one-parent to two-parent (3 per cent), or a new birth into the family (9 per cent).

Those in two-parent families are slightly more likely to live with just one or no other sibling under 18 than to live with two or more other siblings under 18. Thirteen-year-olds in one-parent families, on the other hand, are about twice as likely to live in the smaller families (one or no other sibling under 18).

While most (90 per cent) of 13-year-olds had no change in family structure since the age of nine, some experienced significant change. Of the one-parent families at age nine, about one in eight had a newborn child in the family and about one in seven had a father or step-father join the family. Of the two-parent

families at age nine, about one in 10 had a newborn join the family and about one in 20 had the father or step-father leave.

There is scope to examine in much more detail the nature of these family changes and their impact on children's development, to help inform the development of policies and the provision of services to support families. There is a policy concern with ensuring that children have "a secure, stable and caring home environment" (Department of Children and Youth Affairs, 2014). Some changes may increase stability and security for children while others may reduce it.

2.2 FAMILY ECONOMIC CIRCUMSTANCES

The report examines parental economic status; the extent to which the parents worked outside the home, and issues around work-life balance, financial strain and family income. Since the age of nine, there was a small increase in employment among Primary Caregivers (from 56 to 58 per cent), as might be expected as childcare requirements diminish. At the same time, however, there was a substantial loss of employment among Secondary Caregivers (from 91 to 83 per cent), as a result of the recession that affected the families between the times the children were nine and 13 years old (i.e. between 2007/8 and 2012). Employment levels of the Primary Caregivers of 13-year-olds differed by family type; the lowest rate was in larger one-parent families (49 per cent) and the highest rate in small one-parent families (67 per cent).

On average, Primary Caregivers (mostly mothers) were in employment for 27 hours a week. Secondary Caregivers (mostly fathers) were employed for 46 hours a week on average. Employment was strongly related to level of educational attainment: 35 per cent of Primary Caregivers with the lowest educational levels were employed compared with 76 per cent among those with the highest levels of education.

Substantial percentages of both Primary and Secondary Caregivers who worked outside the home noted that their work responsibilities resulted in them missing out on family activities. This was especially true of Secondary Caregivers (mostly fathers, 42 per cent compared to 28 per cent for Primary Caregivers), because they work longer hours. In policy terms, enhanced workplace policies around flexible and family-friendly employment practices could assist in reducing imbalances between work and family, with the potential to improve a range of outcomes for children and young people, including their emotional well-being, safety and responsible behaviour.

Family disposable income at both nine and 13 years of age was strongly related to family social class and level of parental education. There were also substantial differences by family type, with the larger one-parent families most concentrated in the lowest income category. All groups experienced a reduction in income between 2008 and 2012, with an average drop of 18 per cent.

Families experienced substantial increases in financial strain between 2008 and 2012. A total of 61 per cent of the families of 13-year-olds recorded that they were making ends meet *with great difficulty/with difficulty* or *with some difficulty* compared to 30 per cent when the Study Child was aged nine, four years earlier. Financial strain was particularly acute among one-parent families: 35 per cent of smaller one-parent families and 46 per cent of larger one-parent families had *difficulty* or *great difficulty* in making ends meet.

Most families of 13-year-olds felt that the recession had had a significantly negative effect on them over the previous four years. A substantial minority of families said that they *could not afford or had to cut back on basics* (29 per cent), were *behind with utility bills* (12 per cent) or *behind with the rent/mortgage* (10 per cent) as a result of the recession. One-parent families were most likely to report these difficulties. This type of impact on families is of relevance to the National Action Plan for Social Inclusion (Department of Social Protection, 2016) as well as to the National Children's Strategy goal of ensuring that all children "are protected from poverty and social exclusion" (DCYA, 2014). *Growing Up in Ireland* data could be further

analysed to provide an important insight into the impact of financial strain on children and the extent to which any negative impact is repaired by economic recovery.

3 HEALTH AND MATURATION

3.1 HEALTH

Most 13-year-olds were in good general physical health; 76 per cent were reported by their Primary Caregivers to be *very healthy* (up from 73 per cent at age nine) and 23 per cent to be *healthy but with a few minor problems*. Parents in higher social classes were most likely to report that the Study Children were in good health and least likely to report that the 13-year-old had a chronic illness, disability or other health condition (most commonly respiratory conditions and emotional or behavioural difficulties). Just nine per cent of parents in the *professional/managerial* social class reported children having a chronic illness or condition compared to 17 per cent in the *never employed* social class.

Seventeen per cent of boys and 11 per cent of girls had been in an accident that required hospital treatment in the previous year. Lower social class was associated with an increased risk of accidents, at 19 per cent overall for this group.

The 13-year-olds' medical-card status was associated with the number of GP visits made. Moving from no medical card at age nine to full, or 'GP only' card, was associated with a small but significant rise in visits made to the GP, and a decrease in medical-card status was linked to a reduction in GP visits. Further analysis would be needed to isolate the impact of changing medical-card cover from other changes in the health and life of the 13-year-old and their families in the period studied. The impact of GP coverage on service usage has potentially significant policy implications.

Seventy-three per cent of the girls had started their periods by the time they were 13. The age at first period tended to be lower for girls from more disadvantaged backgrounds, those who had experienced several stressful life events since age nine, and those who had been overweight at age nine. Nearly two in five boys reported that their voice was occasionally lower by age 13, and one-fifth indicated that their voice had changed completely. The association between puberty (as indicated by voice change for boys and first period for girls) and stressful life events and weight at age nine was weaker for boys than girls.

3.2 WEIGHT STATUS AND PHYSICAL ACTIVITY

Overall, 74 per cent of 13-year-olds were *non-overweight*, and 26 per cent were *overweight* (20 per cent or *obese* (6 per cent), figures very close to those at nine years old. Girls were significantly more likely than boys to be *overweight* (22 per cent compared to 19 per cent) or *obese* (8 per cent compared to 5 per cent). Social gradients were also evident: 3.5 per cent of 13-year-olds from professional/managerial backgrounds were *obese*, compared with 11.1 per cent of their peers from the 'Never employed' social class. At the individual level, there was quite a degree of change in weight status between nine and 13 years of age. For example, although half of *obese* nine-year-olds remained in the *obese* group at 13 years, 41 per cent had moved to the *overweight* group and nine per cent to the *non-overweight* group.

Overall, boys were more likely than girls to exercise on nine or more days out of 14 (37 per cent compared to 18 per cent). Strong social gradients were clear in terms of activity levels: 33 per cent of 13-year-olds in the professional/managerial group engaged in hard exercise (activity sufficiently vigorous to make the heart beat faster) on nine or more days in the last two weeks, compared with 25 per cent of those from the most socially disadvantaged families.

Department of Health guidelines on physical activity for children and young people recommend 60 minutes of moderate to vigorous activity every day, with muscle-strengthening, flexibility and bone-strengthening

exercises three times each week (Department of Health, 2014). Although it is not possible to directly assess adherence to these guidelines with data from *Growing Up in Ireland*, the results suggesting that only a minority of children engaged in hard exercise every day point to a possible cause for concern here.¹

There was evidence that affordability constraints may have influenced the level of participation in organised sporting and cultural activities, particularly when these were paid activities. The rate of participation at least weekly in paid, organised sporting activities was over half for 13-year-olds in the highest income quintile compared to about one-third for those in the lowest income quintile. Participation in dance, drama or music lessons (which are usually paid activities) was also higher among those in the top income quintile; one-third participated at least once a week compared to just one-fifth among 13-year-olds in the lowest income quintile.

The findings on participation in physical activity, cultural activity and sport are all relevant to the *Sports Ireland Interim Strategy 2016* (Sports Ireland, 2016), the *National Physical Activity Plan* (Healthy Ireland, 2016), and the *Creative Youth Program* (Creative Ireland, 2017).

4 EDUCATION AND COGNITIVE DEVELOPMENT

4.1 EDUCATION – THE 13-YEAR-OLD'S PERSPECTIVE

In general, 13-year-olds were positive about their school and school subjects, and positive interaction with teachers was more frequent than negative interaction. Differences in school engagement, including negative interactions with teachers and Self reported misbehaviour in class, were evident by gender and social background. Boys were more likely to experience negative interactions with their teachers, and reported much higher levels of misbehaviour than girls. Negative interactions and self-reported misbehaviour levels were also higher among those from low-income families or those with lower levels of education, though these differences were less striking than in the case of gender. In keeping with previous Irish research, second-year students had a higher risk than those in first year of disengagement with school, as seen in the lower percentage who reported liking school. Students with special educational needs (SEN) also had somewhat less positive experiences.

As a further measure of school engagement, time spent on homework was lower among boys and those from less advantaged families. As the Study Child moved from primary to second level, there was a very significant increase in the amount of time spent on homework and a decline in academic self-image (perceived capacity to cope with schoolwork).

4.2 PARENT PERSPECTIVES ON EDUCATION

Parent reports revealed distinct differences in the profile of 13-year-olds attending the three post-primary school sectors (Secondary, Vocational and Community/Comprehensive). Those from less advantaged backgrounds and those with lower prior achievement levels were more likely to attend vocational schools. In contrast, middle-class 13-year-olds were over-represented in secondary schools. Social differentiation in school pupil profiles could have significant consequences for later educational outcomes because of the potential impact of peer effects, school provision of subjects and subject levels, and teacher expectations.

The transition to second-level education required adjustment to a new setting on the part of the Study Child. However, parents generally felt that the Study Children had settled well into the new school. Perceived transition difficulties were statistically significant but only slightly greater among girls than boys, higher for those from less advantaged families in social class and educational terms, and markedly higher among those with special educational needs. The ease of transition was clearly related to primary school experiences; not liking school, teacher or subjects at nine years of age was associated with not liking school at age 13. Levels of transition difficulties were higher among 13-year-olds who had lower cognitive

¹ The questions in the *Growing Up in Ireland* study were based on an instrument specifically designed and tested to measure activity levels in adolescents: the Modifiable Activity Questionnaire (Aaron et al., 1995).

test scores (Drumcondra Maths and Reading scores) at age nine, especially in Mathematics. Also of policy relevance are transition difficulties, that tended to be reduced where 13-year-olds had attended a school open day and where they had made the transition alongside some of their primary school friends.

Parental involvement in their 13-year-olds' education was high in areas such as attending parent-teacher meetings and in discussing school-related issues with the 13-year-olds. Helping with homework was much less prevalent than it had been at age nine, however. The most frequent reasons given for *never helping* were that the 13-year-olds did not need or want assistance. Helping with homework was less common in disadvantaged families, suggesting that more disadvantaged parents may not be in a position to provide direct help with homework.

Primary Caregivers across all social groups held high expectations for their children. Those held by the parents of 13-year-olds were significantly higher than those of 13-year-olds themselves, with 79 per cent of the Primary Caregivers expecting attainment of a third-level degree compared to just 51 per cent of the 13-year-olds. The gap was even larger in the most disadvantaged families. This discrepancy in expectations is worthy of further investigation as it may be a source of stress or motivation for the young people.

4.3 COGNITIVE OUTCOMES

Performance on a number of different cognitive tests was examined at age 13. Strong, positive relationships with family social class and Primary Caregiver education were identified across all tests, and the 13-year-olds from one-parent families tended to have lower scores.

Males performed slightly better than females on the tests, though this gender difference was very small compared to the gradients associated with Primary Caregiver education and family social class. Further waves of data will allow researchers to explore gender differences in engagement, enjoyment and self-rating of the academic experience as well as performance in the cognitive tests and how these might relate to performance in state examinations, for example.

Cognitive test performance at 13 years was positively associated with academic self-concept at age nine and at age 13 and also with engagement with school and with specific subjects, both at nine years and 13 years. Generally, 13-year-olds who liked school, liked their subjects and found them interesting and not too difficult were more likely to score higher, especially in the Drumcondra Verbal Reasoning and Numerical Ability tests. Further investigation is needed to assess the direction of this relationship, however: good performance may lead to positive self-concept and positive views of school but the effect may also operate in the opposite direction.

5 EMOTIONAL WELL-BEING

Most 13-year-olds fared well in terms of their psychological adjustment. On the Strengths and Difficulties Questionnaire, a socio-emotional and behavioural screening tool, the average scores of the 13-year-olds were close to, or slightly better, than those of young people of similar ages in the UK, and the average scores on pro-social behaviour were better for the Irish sample. In addition, average scores had improved since the Study Children were nine years old.

The risk of socio-emotional and behavioural problems was higher in the context of social disadvantage such as lower levels of parental education, lower income and lower social class. Overall, there was no significant difference between boys and girls at age 13, but gender differences came to light in relation to some of the subscales of the SDQ: boys were more likely to have issues with hyperactivity, and girls more likely to have emotional issues. Furthermore, earlier risk of difficulties (at age nine) were associated with later risk of difficulties (at 13), underlining the importance of recognition of these issues by both parents

and teachers as early as possible to facilitate interventions to prevent problems becoming entrenched. In this regard, there was evidence of improvement over time for a significant proportion of young people who had been at risk of socio-emotional problems four years earlier: about half of those who had scores in the 'at risk' range for socio-emotional and behavioural problems at age nine were no longer in that range by age 13.

There were gender differences in parental reports of their knowledge about their child's activities, relationships with friends and school performance (Monitoring); and in the tendency of their child to disclose this kind of information to their parent without being asked (Disclosure). (Primary Caregivers reported higher levels of both with respect to daughters than sons) and in the 13-year-olds' reports of parental control, with girls reporting higher levels than boys.

6 PEER RELATIONSHIPS AND FRIENDSHIP NETWORKS

In broad terms, most 13-year-olds have relatively extensive friendship networks; less than one per cent said they had no friends at all and over half reported having six or more friends. Those with fewest friends (fewer than three) had a much higher chance of being 'at risk' of socio-emotional and behavioural problems (according to the Strengths and Difficulties Questionnaire). However, causal direction cannot be assumed here. Socio-emotional difficulties may limit the number of friends that a 13-year-old has.

The prevalence, nature and consequences of bullying were explored. The data indicated a relatively low level of parent or child reporting being bullied – just under 10 per cent in the last three months, which is lower than found in many other studies (e.g. HBSC, 2014). Prevalence levels of being bullied were higher for children from more socially disadvantaged backgrounds (18 per cent of those in the *never employed* social class, for example). As expected based on previous literature, victims were found to have higher risks of socio-emotional and behavioural problems (31 per cent in the 'at risk' range on the SDQ compared to eight per cent of those who had not been bullied). The forms of bullying reported included physical, verbal, emotional and cyber-bullying. The multiple forms that bullying can take emphasises the need for interventions to address both covert and overt forms. Schools and parents as well as clubs and organisations have an important role in promoting respect and dignity in interactions with peers and others.

Most 13-year-olds had an average or above-average self-concept as measured by the Piers-Harris scale. However, findings highlighted the need for further attention in certain areas, such as lower self-concept among girls. Important associations between low self-concept and bullying (both as a victim and as a perpetrator) were also clear. Both victims and perpetrators had lower self-concept on all subscales, and perpetrators had even lower levels of self-esteem than victims. The fact that perpetrators, as well as their victims, had low self-image is significant from policy and intervention perspectives.

7 ANTISOCIAL AND RISKY BEHAVIOURS OF 13-YEAR-OLDS

Antisocial and risky behaviours were considered based on the reports of both the 13-year-olds and their parent. The frequency of engaging in a set of behaviours over the last year was presented in a first-person manner to the 13-year-old and as a third-person report to the parent. The lists of behaviours were similar, but the 13-year-old's contained some minor antisocial behaviours about which the parent was not asked. From both perspectives, the overall prevalence of antisocial behaviour was quite low. Primary Caregivers reported that nine per cent had engaged in *starting fights, or bullies, threatens or intimidates others*, but less than five per cent were involved in *deliberate cruelty to people or animals or using a weapon*). The Study Children themselves reported having engaged in antisocial behaviour with somewhat greater frequency. For instance, 17 per cent had *hit, kicked or punched someone on purpose in order to hurt or*

injure them, 14 per cent had *not paid the correct fare on a bus or train*, and 14 per cent had *taken money or something else that did not belong to you from your home without permission*. In general, boys were more likely than girls to engage in such behaviours.

Smoking at any age (though particularly at an early age) has important immediate and longer-term effects on health and well-being. Just under nine per cent of 13-year-olds said they had ever smoked a cigarette, there being no difference between girls and boys. Just two per cent said they currently smoked, at the time of their interview. Smoking prevalence was highest among 13-year-olds from more socially and educationally disadvantaged families.

A total of 16 per cent of 13-year-olds recorded that they had ever had an alcoholic drink, other than just a few sips. As with smoking, this was also associated with educational and social disadvantage in the home. Just under eight per cent of 13-year-olds said they had had a whole alcoholic drink in the last year. Reported levels of ever having been drunk were relatively low – 3.6 per cent. Less than one per cent of 13-year-olds indicated that they drank more often than once a month. Although the prevalence is low, and suggests experimentation rather than habitual drinking, the variations by social class and parental education are concerning given links between lifetime alcohol use and accidents, violence and longer-term health, and given WHO recommendations on delaying the onset of alcohol consumption (WHO, 2001).

8 NEXT STEPS IN GROWING UP IN IRELAND'S CHILD COHORT

This report on the *Growing Up in Ireland* Child Cohort at 13 years of age expands on the first set of findings for this group published in 2012. The report is intentionally purely descriptive in nature. Its main objective is to paint an overall picture of the lives of 13-year-olds in 21st century Ireland across the main developmental outcomes of their lives. A related goal is to inform researchers and policymakers of the rich data available in *Growing Up in Ireland* and to encourage further use of this important national data source through more in-depth policy-relevant research and analysis. With this in mind, there are a number of further analyses that could usefully inform policy. Some of the main policy issues that could be addressed include the following:

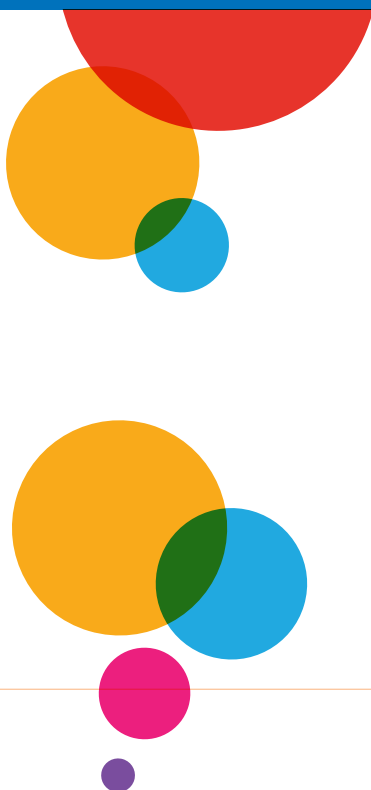
- **Equality of opportunity:** The report highlighted differences across most outcomes between socio-economic groups. Further analysis of possible causal mechanisms would inform potential interventions to ensure equality of opportunity.
- **Educational policy – school experiences:** Gender and socio-economic differences in school engagement have important implications for educational retention and achievement. Further analysis of the role of parent-teacher interaction, teacher-pupil interaction and school practices could contribute in important ways to teacher training and educational policy.
- **Career guidance and educational aspirations:** As noted above, the educational expectations of parents tend to be much higher than those of the 13-year-olds, especially in more disadvantaged families. This may serve to enhance the motivation to learn or it could be a source of stress. If it is linked to a lack of awareness of post-school options, there may be a role for greater involvement of parents in career guidance discussions.
- **Promoting responsible social engagement:** The longitudinal data offers a unique opportunity to study the protective factors that may enable young people to move beyond risk-taking (including smoking, early drinking, drug use) and antisocial behaviour. Protective factors may include parental monitoring and control, involvement in physical activity, and connection with peers in the context of shared sport or cultural interests.

- **Health:** Levels of obesity are of concern as potential triggers of future health problems. The longitudinal data in *Growing Up in Ireland* permit separate analyses of the factors that prevent weight gain and those that promote a return to a healthy body weight. How important are diet, exercise, family and peer relationships in terms of these outcomes?
- **Factors promoting resilience and mental well-being:** As well as highlighting risk factors for socio-emotional and behavioural problems, the *Growing Up in Ireland* data could be examined to identify protective factors that support positive outcomes. These might include an exploration of the role of family economic circumstances, parental employment, parental mental well-being, parent-child relationship quality, peer support and the young person's involvement in cultural, sporting or physical activity.
- **Timing of transitions:** How significant for the well-being of children are factors such as early puberty, being unusually large or small for their age, or being unusually old or young for the transition to secondary school? What factors are protective of children in these circumstances?



Chapter 1

INTRODUCTION



1.1 INTRODUCTION

This report provides a descriptive analysis of the findings from detailed interviews with 13-year-olds in the *Growing Up in Ireland* study. This report interrogates data from this wave of data collection in more detail and expands on the issues covered in those key findings. The findings are explored on a longitudinal basis which allows insights into developmental trajectories and exploration into interactions between multiple factors in the lives of young people, a type of analysis that is not possible with previous cross sectional reports. The purpose of the report is to present a broad, comprehensive overview of the lives of 13-year-olds in the *Growing Up in Ireland* Child Cohort and to describe how they are faring in different aspects of their lives.

Growing Up in Ireland tracks the development of two nationally representative cohorts of children and young people: an Infant Cohort and a Child Cohort. This report focuses on the Child Cohort, an older group of just over 8,500 children, their families, teachers and school principals. They were first interviewed between September 2007 and March 2008, when the children were nine years of age. The young people and their families were re-interviewed at 13 years of age, between August 2011 and February 2012. This report deals exclusively with children in this cohort at age 13, describing their lives at 13 years of age, as well as continuity/stability in their development since recruitment at nine years old.

1.2 WHAT IS INTERESTING ABOUT AGE 13?

The first question to consider is why one should study the lives of the *Growing Up in Ireland* Child Cohort at 13 years of age and how their lives have changed since they were nine years old. Middle childhood at nine years of age is a relatively stable period for children. They are well established in primary school and operate within relatively predictable and familiar contexts. The prospect of moving to the uncertainties of secondary school is still some way off. In general, it is a time of little stress or turmoil for them, before they make some of the critical transitions in their physical, educational and socio-emotional development into early adolescence, from around 13 years of age. Although most 13-year-olds pass through this period without too much difficulty and experience a strengthening of their social, emotional and cognitive skills, for others it is sometimes characterised as a time of 'storm and stress', with conflict and mood swings, sometimes marking the beginning of antisocial and risk-taking behaviours (e.g. Arnett, 1999).

One of the more important aspects in studying the Child Cohort at age 13 is the way in which relationships and social contacts differ from those of earlier childhood. While family relationships still remain salient, the proportion of time that adolescents spend with others outside the family increases, and extra-familial relationships take the place of many functions that were previously the exclusive domain of the family (Collins and Laursen, 2004). Parallel with growing independence is the development of interdependence, which involves the mutual support and influence of peers and friends.

A further compelling reason for studying 13-year-olds is to further our understanding of maturation and puberty. While puberty is orchestrated by biological factors, social and environmental influences interact with biology in complex ways to make this an often challenging period in a 13-year-old's life. The timing of pubertal growth and change and its association with outcomes is important in understanding early teenage development. These factors include relationships between family members, conflict in the home and the monitoring, control and discipline styles adopted by parents. There are indications that puberty is delayed (and childhood lengthened) when the family environment is high in quality and, conversely, is advanced when the family environment is more disadvantaged or characterised by adverse circumstances (Ellis and Garber, 2000).

As well as biological maturation and change, the change in self and social definition during adolescence is equally important. While children develop a sense of self from infancy, at adolescence the question of

'Who am I?' becomes more pressing for the 13-year-old. It is well recognized that during adolescence, there is a steady increase in the ability to use self-regulation to control thoughts and actions. Zins et al. (2004) propose that a range of competencies increase during adolescence and are not only important for social and emotional development but have also been identified as inherently linked to improved academic performance. These include: self and social awareness; responsible decision-making; self-management, and relationship management.

Although early adolescence is generally a period of relative stability in terms of health, increasing levels of overweight and obesity among young people are a cause for concern (Layte and McCrory, 2011). It is important to understand the factors (including physical activity and dietary profile) that are associated with an elevated Body Mass Index (BMI) and with transitions in weight status between middle childhood and early adolescence. While individual characteristics and decisions are crucial to weight status, the importance of the environmental and policy context has also been recognised. See for example, Department of Health *Obesity Policy and Action Plan for Ireland 2016-2025*. Some health-compromising behaviours, such as experimentation with smoking, drinking and illicit drugs, also begin at this time in the 13-year-old's life. In some cases, the experimentation will be short-lived, in others it will be habit-forming and last for many years into adulthood.

Early adolescence is a critical period for the 13-year old's educational and cognitive development. Most young people in Ireland make the transition to second level at around 12-13 years of age. The varying impacts of family, friends, role models, community and other influences on their engagement with learning and school performance assume an increasingly important role at this age. Issues around intergenerational transmission of educational disadvantage often come to the fore in determining educational performance and outcomes at this time.

Relationships and social contacts, puberty, identity, health, education and cognitive development at 13 years ultimately affect life chances well beyond adolescence. Consequently, an understanding of the variations and processes involved in the transitions in young people's lives at this time is critical to putting in place the supports necessary to assist all young people to achieve their full potential in both the short and longer terms.

1.3 OBJECTIVES OF GROWING UP IN IRELAND

The principal objective of *Growing Up in Ireland* is "to examine the factors which contribute to or undermine the well-being of children in contemporary families in Ireland, and, through this, contribute to the setting of effective and responsive policies relating to children and to the design of services for children and their families".² To this end, it provides data and research designed to improve our understanding of the circumstances and experiences of children and young people.³ Since its inception in 2006, it has been producing a rich body of scientific knowledge to guide policy in this area. Key to this process has been the provision of a fuller description of the lives of Irish children and young people than had previously been feasible. The scientific information which the study provides is not available from any other source in Ireland.

Growing Up in Ireland originated in the National Children's Strategy, published in 2000. The primary objective of the Children's Strategy was to "... enhance the status and further improve the quality of life of Ireland's children" (p.4). It affirmed Ireland's commitment to respecting children as fully participating members of society in their own right. The three main goals of the National Children's Strategy were to:

- Give children an appropriate voice in matters which affect them
- Improve children's lives through improved understanding
- Promote child development through the provision of supports and services

² Request for Tender, Phase 2, Appendix 1, Page 4.

³ The data from *Growing Up in Ireland* are part of the national statistics system. All quantitative and qualitative data recorded in the project are available (on an anonymised basis) in data archives at the Irish Social Science Data Archive (ISSDA) and the Irish Qualitative Data Archive (IQDA).

Growing Up in Ireland addresses all of these goals. It is centred on children and young people and provides them with a direct voice in matters concerning their lives. It greatly improves our understanding of childhood and adolescence. By raising awareness of the variations, issues and processes involved in the early years of life, it highlights areas where additional supports, services and interventions may be needed. The overarching aim of ***Growing Up in Ireland*** is to study the factors that contribute to or undermine the well-being of children in 21st century Ireland.

Growing Up in Ireland has nine specific objectives, designed to meet this overarching goal. These are to:

1. Describe the lives of children in Ireland, and establish what is typical and normal as well as what is atypical and problematic
2. Chart the development of children over time, and examine the progress and well-being of children at critical periods from birth to adulthood
3. Identify the key factors that, independently of others, most help or hinder children's development
4. Establish the effects of earlier experiences on later life
5. Map dimensions of variation in children's lives
6. Identify the persistent adverse effects that lead to social disadvantage and exclusion, educational difficulties, ill health and deprivation
7. Obtain children's views and opinions on their lives
8. Provide a bank of data on the whole child
9. Provide evidence for the creation of effective and responsive policies and services for children and families

Growing Up in Ireland represents all children in two cohorts in Ireland. It represents the variation and diversity that existed at the time the cohorts were recruited. It forms an important aspect of the national data strategy on children's lives (DCYA, 2011) and provides a unique scientific framework for developing Irish policy in this area. Information from all phases of ***Growing Up in Ireland*** featured prominently in *Better Outcomes, Brighter Futures*, the national strategy for children and young people, 2014-2020 (DCYA, 2014). The study provides the only large-scale, nationally representative evidence base for this type of work in Ireland.

Growing Up in Ireland allows policymakers, practitioners, researchers and other stakeholders to investigate children and young people across time (longitudinally) and across a large number of domains in their lives. The cross-cutting analysis that is supported by ***Growing Up in Ireland*** permits an analysis of risk, resilience and protective factors in their lives. Most importantly, as well as establishing what is typical among young people, it identifies the nature of persistent adverse effects that lead to social disadvantage and exclusion, educational difficulties, ill health and deprivation.

The longitudinal nature of the study is, of course, its greatest strength. It makes it possible to study processes that are intrinsically dynamic in order to draw out the implications for policy. It enables the examination of the influence of early life experiences on later outcomes, and the progress and well-being of children and young people at critical periods in their development. It provides a better understanding of the influence of socio-economic processes on children over time. In so doing, it provides a unique scientific framework in Ireland for developing evidence-informed policy in areas related to children, young people and their families.

Growing Up in Ireland has the potential to inform policy development across a large number of government departments and their agencies, especially in areas concerned with: the family; the child's health and growth; the child's education and training; early labour-market experience; the challenges and

opportunities of adolescence, including sexual orientation and behaviours; the emergence of independent thinking and identity; new patterns of social participation and responsibility; health-relevant behaviours, and issues related to self-harm and antisocial behaviours.

1.4 UNDERLYING CONCEPTUAL FRAMEWORK

The focus throughout *Growing Up in Ireland* is the developmental outcome of the child and the 13-year-old in three main domains:

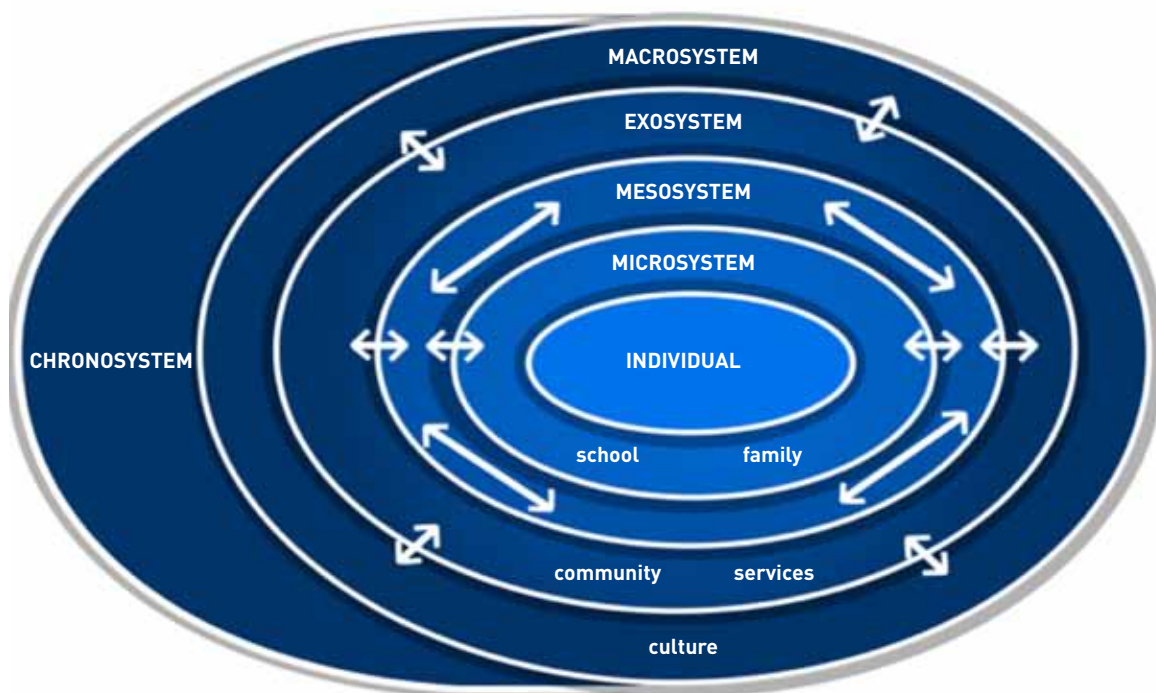
- Social/emotional/behavioural well-being
- Physical health and development
- Educational achievement and intellectual capacity/learning

As outlined in Greene et al. (2010), the conceptual framework adopted by *Growing Up in Ireland* is based on Bronfenbrenner's bioecological model. This hypothesises multiple layers of influence on the development of the individual child and 13-year-old (see Figure 1.1).

The layers of influence in their ecology extend outward from the individual child or 13-year-old and their inherent dispositions and characteristics. The innermost layer in the bioecological system is the *microsystem*. This includes relationships with family, school, peers and neighbourhoods. The relationships between the elements of the microsystem, such as between parents and school, are encompassed by the *mesosystem*. The institutions and settings that indirectly influence the child and their microsystem (such as the health services, parents' work status and workplace) are contained within the *exosystem*. Finally, all the actions and interactions of these inner systems take place under the influence of broader societal and global forces such as cultural beliefs, national policies and general economic prosperity. These constitute the *macrosystem*. Finally, the *chronosystem* refers to the role of time in the life of the child. This can involve both the passing of time and the experiences accumulated over time, as well as the timing of specific events and critical transitions in the child's life. These various layers of the child's ecology are summarised in Figure 1.1.

The diagram summarises the complex multidirectional and recursive relationships between the child and the actors in the various environments and layers within which s/he operates. At 13 years of age, the immediate family and home environment are still of substantial significance for the developing child. However, as the 13-year-old reaches the early teenage years, s/he becomes increasingly oriented to the world outside the home and more directly and indirectly open to a wider range of influences. The roles played by peer and other non-family relationships in the community and neighbourhood substantially increase, as does the significance of the school environment and relationships with teachers and peers at school. Trends in the economy and national policies in education, welfare and health will all have direct and indirect effects on the lives and circumstances of young people.

Figure 1.1: Bronfenbrenner’s ecological perspective on child development



Source: Adapted from Garbarino (1982).

Table 1.1 gives examples of family and individual factors used in *Growing Up in Ireland* that are relevant to 13-year-olds in each layer of the bioecological model.

Table 1.1: Examples of characteristics in *Growing Up in Ireland* by bioecological model layer

Level of bioecological model	Factors
Characteristics inherent to the 13-year-old him/herself	Gender; personality; physical development; social and psychological development; identity; self-concept; mental well-being; cognitive development; physical health; ethnicity
Microsystem	Family and family size, composition and structure; parenting style; parental marital relationship; school and education; parental health; parent-child relationship; parental lifestyle; parental education; parental stress and efficacy
Mesosystem	Work-life balance; parental involvement with community and school; parent/child involvement with child’s grandparents; informal support for education in the home and elsewhere
Exosystem	Access to healthcare; church and religion; social welfare support; parental occupation; availability of and access to public services
Macrosystem	Citizenship/nationality; socio-historical setting of current study; economic climate, education and health policies

1.5 DATA AND METHODOLOGY

1.5.1 THE SAMPLE AT THE SECOND ROUND OF INTERVIEWING

Growing Up in Ireland is a longitudinal study based on the same set of children and young people who (with their families) are interviewed on several occasions over time. Participants in the Child Cohort were selected through the primary school system for inclusion in the first wave of the study at nine years of age and interviews were completed with 8,568 children at that time. The target sample for the second wave (when the young people were 13 years old) included all of those who had participated in the first wave and who were still resident in Ireland four years later, i.e. 8,465 children. A total of 7,423 children were interviewed in the second wave, representing a response rate of 87.7 per cent.

The 13-year-old is the focus of this study. It is s/he whom the study follows, interviews, measures and tests over time, regardless of changes in family composition or where in Ireland s/he lives. In this respect, the study is based on what is described as a fixed panel of young people. After the initial sample was recruited at nine years of age in 2007/08, no additions were made to it. The only loss arose through non-response or attrition between waves (including circumstances where the 13-year-old moved outside the jurisdiction or was deceased). Any 13-year-olds resident in Ireland at the time of the second wave in 2011/12 who had not been living in Ireland at the time of the first wave – because they had migrated to Ireland between the waves – are not included in either the sample or population of 13-year-olds for the purposes of the study. Accordingly, the sample of young people who were interviewed at 13 years of age is representative of the population of children who were living in Ireland at nine years of age in 2007/2008 and who continued to be resident within the State at the age of 13, in 2011/2012.

1.5.2 RESPONSE RATES, INTER-WAVE ATTRITION AND REWEIGHTING THE DATA

The overall response rate in the second round of the study was 87.7 per cent.⁴ Despite rigorous tracking and tracing procedures to encourage participation, some level of attrition between waves is unavoidable in longitudinal studies like *Growing Up in Ireland* (Schoeni et al., 2013). To ensure that the sample remained representative of the population, all data were statistically adjusted or reweighted, using standard procedures, prior to analysis and reporting. This ensures that the figures presented throughout the report are representative of the population of 13-year-olds who were resident in Ireland at nine years of age and who were still living here at 13 years.

1.5.3 BACKGROUND FAMILY CHARACTERISTICS

Information on background family characteristics helps us understand social and other variations in the lives and experiences of 13-year-olds in Ireland. The *Growing Up in Ireland* survey collects details on a number of background characteristics, including family social class, family income, family type and Primary Caregiver's highest level of educational attainment.

Family social class: This is a fourfold classification of social class: Professional/Managerial; Other Non-Manual/Skilled Manual; Semi-skilled/Unskilled Manual, and Never Employed.⁵ The social class classification follows the Standard Occupational Classification used by the Central Statistics Office and is based on the combined work and occupational history of the child's Primary and Secondary Caregivers. Where neither has a relevant work history outside the home (and hence no occupational history), social class cannot be assigned; this social class category tends to be the most socially disadvantaged. In this report, this group is referred to as 'Never Employed'.

Family income: Family income is reported mainly by quintile or fifth throughout the report. In other words, the families are broken into five equally-sized groups, with incomes ranging from the lowest to the highest. Income is adjusted (equivalised) to take account of the number of adults and children in the family.⁶ Therefore, the top quintile consists of families whose adjusted disposable income is in the highest fifth or 20 per cent of families.

Family type is a fourfold classification used throughout the report:

- One-parent, 1-2 children under 18 years
- One-parent, 3+ children under 18 years
- Two-parent, 1-2 children under 18 years
- Two-parent, 3+ children under 18 years

⁴ At the first wave, a total of 57% of eligible children in participating school agreed to take part in the study (see Williams et al., 2009). The Wave 2 response rate, therefore, amounts to 50 per cent of the eligible children in participating schools from wave 1. Further details on the response rate, variations in attrition between waves and the preparation and re-weighting of the data prior to analysis can be found in Thornton et al., 2016.

⁵ The 7-category CSO classification system is based on the occupation of the 'head of household' (see <http://www.cso.ie/en/releasesandpublications/ep/p-cp9hdc/p8hdc/p9bgn/>). Three pairs of the original seven categories are combined: Professional workers are combined with Managerial and technical; Non-manual are combined with Skilled manual; Semi-skilled are combined with Unskilled and All others gainfully occupied and unknown is the final category. In the majority of cases, these families do not have a work history.

⁶ To do this, the number of 'adult equivalents' in the household is calculated by assigning a weight of 1 to the first adult, 0.66 to all subsequent adults and 0.33 to each child (14 years or less). The total number of adult equivalents is then divided into the household's total disposable income to give the household's equivalised income.

The number of parents (one-parent or two-parent) refers to the number of resident caregivers/guardians of the 13-year-old who is the focus of the study. Neither the biological nor marital status of parents is included in this definition. The term ‘children’ in the classification of family type refers to all persons less than 18 years of age who are living in the household. These may not necessarily be the 13-year-old’s siblings. Further, the 13-year-old may have older brothers or sisters who are not considered ‘children’ for the purpose of the classification of family type if they are over the age of 18.

Primary Caregiver’s educational attainment: The four-fold classification used throughout (Junior Certificate or less, Leaving Certificate, Certificate/Diploma, and Degree) is in line with the Irish educational system and is self-defined by the respondent.

1.5.4 THE SOCIO-EMOTIONAL AND BEHAVIOURAL WELL-BEING OF THE 13-YEAR-OLDS

Most of the outcome variables are described in more detail in the chapters of which they are the focus. Socio-emotional and behavioural outcomes, however, are very general in that they can be affected by experiences in a range of areas, including health, education, family and relationships. The chapters specifically focusing on socio-emotional and behavioural well-being come at the end of the report, but its relationship with other aspects of the 13-year-olds’ lives is examined throughout the report. For this reason, the main measure used is briefly described here.

Growing Up in Ireland adopted a widely-used scale to assess child socio-emotional and behavioural well-being: the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997). It is a screening tool rather than a diagnostic tool that asks about behaviour over the previous six months.

The SDQ includes five five-item subscales:

- Emotional symptoms, such as ‘many worries’, ‘often unhappy, downhearted’
- Conduct problems, such as ‘generally obedient’ (reverse coded), ‘often lies or cheats’
- Hyperactivity, such as ‘constantly fidgeting’, ‘sees tasks through to the end’ (reverse coded)
- Peer problems, such as ‘picked on or bullied by other children’, ‘has at least one good friend’ (reverse coded)
- Prosocial behaviour, such as ‘considerate of other people’s feelings’, ‘often volunteers to help others’

Each of the subscales ranges from 0 to 10. The Total Difficulties Score is the sum of scores on the four subscales that capture socio-emotional and behavioural difficulties (emotional symptoms, conduct problems, hyperactivity and peer problems) and thus has a range of 0-40 (Goodman, 1997).

The means on the subscales are shown in Table 1.2, and compared to those for the UK sample. The mean scores for the 13-year-olds in *Growing Up in Ireland* are shown across each of the SDQ subscales. The first four subscales measure ‘problems’ or ‘deficits’ – a higher score suggests a greater risk of problems. The fifth subscale (prosocial) indicates positive aspects of development. In comparison to British norms for the SDQ, as reported by Goodman,⁷ the Irish nine-year-olds and 13-year-olds are quite similar. Although the differences are very small, Irish 13-year-olds compare favourably: they were slightly less likely to show problems in terms of conduct, hyperactivity, peer problems and total difficulties over both age groups, and more likely to show strengths in prosocial behaviour. Overall, the *Growing Up in Ireland* scores drop slightly between the ages of nine and 13, with a somewhat larger drop for the Irish sample than for the British comparison of teens with younger children. The table also illustrates that, since the possible range is 0-10 for the subscales (and 0 to 40 for the Total Difficulties score), the average scores indicate low levels of problem behaviours in the *Growing Up in Ireland* cohort. They also indicate high levels of prosocial behaviour.

⁷ Note, scores are split for five- to 10-year-olds and 11 to 15-year-olds in the British sample. See <http://www.sdqinfo.com/norms/UKNorm3.pdf>.

Table 1.2: Irish and British means for the SDQ

Subscale	Irish Means and SD				British Means and SD			
	9 years old		13 years old		5-10 years old		11-15 years old	
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
Emotional symptoms	2.1	(2.1)	1.9	(2.0)	1.9	(2.0)	1.9	(2.0)
Conduct problems	1.4	(1.5)	1.2	(1.5)	1.6	(1.7)	1.5	(1.7)
Hyperactivity	3.2	(2.5)	2.8	(2.5)	3.6	(2.7)	3.2	(2.6)
Peer problems	1.3	(1.5)	1.1	(1.5)	1.4	(1.7)	1.5	(1.7)
Total difficulties (based on 4 subscales above)	8.0	(5.3)	7.1	(5.4)	8.6	(5.7)	8.2	(5.8)
Prosocial behaviour	8.9	(1.4)	8.8	(1.5)	8.6	(1.6)	8.6	(1.6)

Note: SD = standard deviation, an indicator of how much the scores vary in the sample: the higher the value, the more the scores vary about the mean.

Although SDQ scores form a continuum, following Goodman (1997) it is possible to categorise or group the scores. Here, following the strategy of the scale developers, the top decile on the 'total difficulties' scale is regarded as 'abnormal' (the term used by the authors) or as a threshold to identify those 'at risk' of socio-emotional and behavioural problems (Goodman, 1997). Although the top 10 per cent on the subscales had not been specifically identified by the scale authors as falling into an 'abnormal' range, a similar threshold is adopted here with the subscales in some analyses to facilitate discussion where differences in subscale scores between the groups is of interest. The goal is to facilitate comparisons between groups rather than to diagnose a socio-emotional or behavioural 'disorder'. To facilitate discussion in the remainder of this report, 13-year-olds in the top 10 per cent of the 'total difficulties' scale and also on the four 'problem' subscales (emotional symptoms, conduct problems, hyperactivity and peer problems) are referred to as being 'at risk' or having heightened difficulties.

Because of the distribution of the scores on the scales, it was not always possible to identify a score that would distinguish exactly 10 per cent of *Growing Up in Ireland* children as being 'at risk'. In this case, the threshold on the scale that came as close as possible to identifying the most problematic 10 per cent is adopted. So, for example, as shown in Table 1.3, 10.2 per cent of 13-year-olds fell into the 'at risk' category for Total Difficulties, while this figure was 16.7 per cent for those 'at risk' for conduct problems.

Table 1.3 Percentage of 13-year-olds in the 'at risk' groups for the overall SDQ measure and the subscales

Subscale	Percentage in at risk group
SDQ emotional difficulties risk category	11.6
SDQ conduct risk category	16.7
SDQ hyperactivity risk category	14.7
SDQ peer problems risk category	14.9
SDQ total risk category (based on the four subscales above)	10.2

1.5.5 PRESENTING FINDINGS AND STATISTICAL SIGNIFICANCE

The results reported here come from a sample survey. Thus, in generalising to all 13-year-olds, it is necessary to take account of the degree of uncertainty involved, particularly when the number of cases in a *Growing Up in Ireland* sub-sample is small. To give an idea of the extent of uncertainty, confidence intervals and

significance tests are used. For instance, suppose the analysis suggests that 81 per cent of 13-year-olds live in two-parent families. The confidence interval is the range within which the 'true' population figure would be expected to be found in 95 per cent of samples of this type and size (where 95 per cent is the confidence level that is most often used). It is typically interpreted as the 'likely range' for a statistic. The **confidence interval** is made up of the estimate from the sample and a margin of error around that estimate. For instance, if the sample estimate of the percentage of 13-year-olds living in two-parent families were 81 per cent, with a **margin of error** of plus or minus one per cent, then, in 95% of samples of this size and type, the population percentage would be in the range of 80 to 82 per cent. In general, for a smaller sample size the confidence interval will be wider. When the results are presented in graph form, error bars are used to indicate the lower and upper bounds of the 95 per cent confidence interval.

A related idea is that of **statistical significance**. This is typically used when comparing means or rates for two groups based on results from a sample study. It is also used in regression analysis where the implicit comparison is with zero (no relationship). A difference between two groups might be observed in the sample, but there is some uncertainty as to whether this reflects a difference in the population or whether that kind of difference could have occurred by chance in the sample. For instance, suppose that 11.4 per cent of Study Children lived in a small one-parent family at age nine but 12.9 per cent lived in this type of family at age 13, could a difference of this size have occurred by chance? If the confidence intervals for the two figures do not overlap, then, in 95 per cent of samples of this size and type, a difference this large would not occur by chance. In other words, the difference is 'statistically significant'. When differences are reported as statistically significant, it means that a researcher can be confident (usually at the 95 per cent level) that a difference of this size in the population reflects a difference in the population. Conventionally, the confidence level for confidence intervals is reported as 95 per cent but the significance level is reported as five per cent (often written as $p \leq .05$ or $\alpha = .05$). This is because, with the confidence interval, the level of confidence associated with an estimate being within a range is of interest, while with significance tests, the level of risk associated with concluding that the two values (means or percentages) are different when they are not is the key information sought.

Unless explicitly stated, all of the findings and patterns discussed in the text of the report are statistically significant at the five per cent level, known as having a p value of $\leq .05$. In other words, an observed difference this big by chance would be expected less than five times in a hundred with samples of this size and type taken from a population where there is, in fact, no difference. In a very large sample, quite small differences between the characteristics of subgroups may be statistically significant, in the technical sense, although some of the differences may be relatively small and not of practical importance (Wasserstein and Lazar, 2016).

There is no statistical test for **practical importance**. This needs to be assessed based on the judgement of the analyst. Indeed, in some cases the absence of a relationship may be as important for understanding the lives of young people and for policy as the finding of a strong relationship. For instance, a small (or no) gender difference may be noteworthy if there are reasons to expect a large difference, such as based on earlier findings or based on research in other countries. It very much depends on the purpose of the analysis. In a general report such as this one, it is not possible to definitively assert that a difference between groups is, or is not, of practical importance across all possible applications. In many instances, the practical importance of findings may only become evident as research findings cumulate, such as the socio-economic disadvantages that are apparent across a whole range of outcomes and across studies in different time periods and jurisdictions.

What is possible, however, is to put the magnitude of differences in context by comparing them to other known patterns. For instance, there may be reasons (based on the literature) to expect a gender difference in antisocial behaviour. It may therefore be informative to put the observed differences by social class in context by comparing these to the gender differences. Where appropriate, especially when using scales that do not have an intuitive metric, such comparisons are noted in this report.

Another statistical technique used in this report is **regression analysis**. This examines relationships between factors (such as family type, age of Study Child) that might be expected to affect outcomes (such as health status, cognitive development). It helps identify the factors that have the strongest relationship with an outcome. *All of the figures presented in this report are purely descriptive and should not be interpreted in any sense as causal in nature.* More sophisticated analysis is needed in order to rule out alternative explanations before concluding that a relationship is causal.

When looking at a binary outcome (such as having a high risk of socio-emotional problems), a logistic regression is used and odds ratios are reported. **Odds ratios** measure the relationship between a characteristic (such as living in a one-parent family) and an outcome (such as being in the 'at risk' range for having socio-emotional and behavioural problems). The odds ratio is the ratio of the odds that an outcome will occur given a particular characteristic, compared to the odds of the outcome occurring in the reference group. For instance, an odds ratio of 2.2 for one-parent versus two-parent families would indicate that the odds of socio-emotional difficulties for children in one-parent families are 2.2 times higher than for those in two-parent families. Odds ratios with a value greater than one indicate that the characteristic increases the chances of the outcome, compared to the reference group. An odds ratio less than one means that the characteristic reduces the chances of the outcome compared to the reference group.

1.6 CONTENT AND ORGANISATION OF THE REPORT

The remainder of this report is divided into 10 chapters. These follow broadly the same structure as the bioecological model underlying the project.

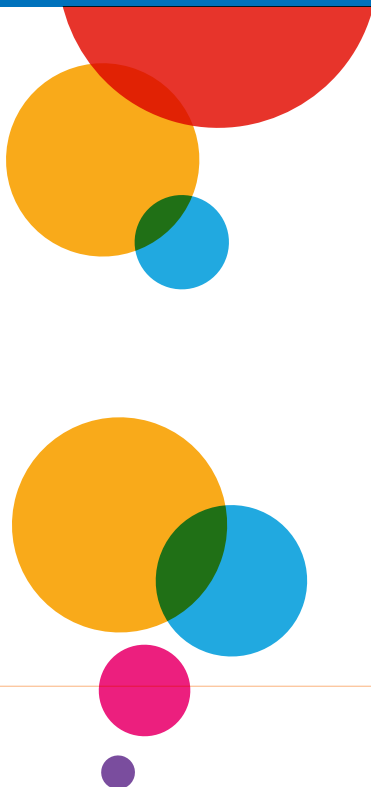
- Chapter Two sets the context by describing the socio-economic characteristics of the families in which the 13-year-olds live, including a discussion of how they were affected by the recession.
- Chapters Three and Four consider the child's health outcomes. The first of these examines the 13-year-old's physical health and maturation. Chapter Four examines in detail BMI status and changes between nine and 13 years of age, as well as physical activity and sedentary behaviours, including details on eating habits and snacking behaviours.
- Chapters Five, Six and Seven focus on aspects of the 13-year-old's education and cognitive development. Chapter Five explores issues such as student-teacher interactions, attitudes to school and subjects, homework and academic self-image from the 13-year-old's perspective. Chapter Six explores these issues from the parent's perspective, looking at school choice, the 13-year-old's transition to second level, parental involvement in the 13-year-old's education, and parental expectations. Chapter Seven considers variations in the cognitive test scores that the 13-year-olds completed as part of the fieldwork at this age.
- Chapters Eight, Nine and Ten focus on the 13-year-old's socio-emotional and behavioural outcomes. The first discusses emotional and behavioural well-being, principally based on the Strengths and Difficulties Questionnaire (SDQ), as well as child-parent relationships, parental monitoring and child disclosure. Chapter Nine describes the 13-year-old's perspective on their friendship networks and peer interactions; bullying – both as a victim and perpetrator; self-concept, and measures of the 13-year-old's mood and feelings. Chapter Ten briefly considers risky and often health-compromising behaviours in which the 13-year-old may be involved. These include antisocial behaviours, drinking, smoking and illicit drug-taking.
- Finally, Chapter Eleven gives a brief overview and summary of results, and identifies some associated policy implications.





Chapter 2

THE FAMILY CIRCUMSTANCES OF 13-YEAR-OLDS



2.1 INTRODUCTION

This chapter examines two important aspects of the 13-year-old's microsystem, then focuses in the remaining chapters on Study Child outcomes. The reason for beginning with these two aspects of the microsystem – family structure and family socio-economic status – is because they are associated with important differences in child outcomes. This information also gives a sense of the variety of contexts in which children live. A crucial aspect of assessing equality in child outcomes is the extent to which differences in outcome are found across family structure and economic status.

Recent decades have seen major changes in family forms in most Western societies, including Ireland (OECD, 2009). In Ireland, there has been a fall in marriage rates and an increase in divorce rates (available in Ireland only since 1997; see Lunn, Fahey and Hannan, 2009). Given the relatively late introduction of divorce, remarriage is a comparatively recent phenomenon in Irish families; a relatively small proportion of children live in informally constituted blended families (Lunn and Fahey, 2011).

Socio-economic status is concerned broadly with the material well-being and resources available to families. It is linked to a range of outcomes in children and young people, including their health, cognitive and socio-emotional development (e.g. Duncan and Brooks-Gunn, 1997; Bolger et al., 1995; Duncan et al., 2007; Holzer et al., 2007; Duncan et al., 2010).

It is particularly important to remember that the families and young people discussed in this chapter were first interviewed when the children were nine years of age, in 2007/2008. They were re-interviewed in 2012 when the Study Child was 13. The first interview when the Study Child was nine years old took place just before the onset of the most serious economic recession ever to affect Ireland. Over the period 2008 to 2011 real GDP declined by 5.4 per cent (real GNP by 10.1 per cent). Unemployment rose from 6.4 per cent in 2008 to 13.2 per cent in 2013.⁸ House prices fell by 50 per cent between 2007 and 2012.⁹ The introduction of national austerity measures resulted in substantial reductions in social welfare payments of all types. These changes in the economy affected all households in the country, resulting in increased financial strain and pressure that (both directly and indirectly) affected children, young people and their families over the period.

The chapter begins by looking at the families in which the young people live, then turns to the socio-economic circumstances of the families and how these have changed between the time the young person was nine and 13 years old. In this context, the chapter considers parental employment, family resources, financial strain, work-life balance/imbalance and the effects of the recession that families have experienced since the Study Child was nine years old. Where possible, changes in these characteristics between age nine and age 13 are considered.

2.2 THE FAMILY CHARACTERISTICS OF 13-YEAR-OLDS

Recent decades have seen major changes in family forms in most Western societies, including Ireland (OECD, 2009). While the traditional two-parent family unit is still the most common family form in Ireland, the *Growing Up in Ireland* data show that 19 per cent of 13-year-olds are in one-parent families.

The influence of family composition and household structure on child outcomes is contested in the literature. Some studies have suggested that some children in one-parent families are more likely to experience emotional distress, negative behaviour, delinquency and drug use (e.g. Amato, 2005; Cairney, Boyle, Offord and Racine, 2003; Cummings, Keller and Davies, 2005; Demo and Acock, 1988; Wells and Rankin, 1991). Others, however, have identified relatively little relationship between household composition and child outcomes (Ford-Gilboe, 2000; Robins and Przybeck, 1987). Using *Growing Up in Ireland* data for Cohort '98 at age nine, Hannan and Halpin (2014) argue that it is the other characteristics of lone parents, such as

lower levels of education rather than lone parenthood in itself that account for much of the unfavourable association between lone parenthood and outcomes such as educational development, health and self-concept. Research has also begun to focus on stability and transition within families, with more emphasis on the correlates of family change as well as different types of change and the significance of their timing (Fomby and Cherlin, 2007; Osborne and McLanahan, 2007; Härkönen, Bernardi and Boertien, 2017).

In the course of their interview, families were asked to identify the 13-year-old's Primary Caregiver. This was defined as the person who provided most care to the 13-year-old and who was most knowledgeable about him/her. The Secondary Caregiver was defined as the resident spouse or partner of the Primary Caregiver. In arranging for the second phase of interviewing, it was made clear to the family that the respondents defined as Primary and Secondary Caregiver could change between nine and 13 years of age, for a variety of reasons. The number of cases where the Primary Caregiver changed (for example, because the main caregiver at age nine had left the family home by the 13-year interview) was very small, however. Details of these changes are outlined in the next section.

Table 2.1 summarises the profile of the 13-year-olds' Primary and Secondary Caregivers in *Growing Up in Ireland*. About 81 per cent of the 13-year-olds were in two-parent families.¹⁰ In general, the 13-year-old's Primary Caregiver (as defined by the family) was female (in almost 97 per cent of cases) and mostly the child's parent (97.5 per cent). Only a small proportion (0.2 per cent) of Primary Caregivers were the 13-year-old's step-parent or partner of the child's parent. Fewer than two per cent were adoptive or foster parents.

Table 2.1: Profile of Primary and Secondary Caregivers of 13-year-olds

	Primary Caregiver %	Secondary Caregiver %
Resident Secondary Caregiver		80.7
Sex		
Male	3.3	97.7
Female	96.7	2.3
Relationship to young person		
Parent	97.5	91.4
Step-parent/partner of parent	0.2	6.3
Adoptive/foster parent	1.6	1.5
Other	0.7	0.7
Age		
Mean years	43.5	46.0
Range in years	26 - 76	25 - 82
Length of time resident in Ireland	Per cent	
Born in Ireland	84.6	87.3
Moved to Ireland 1-5 years ago	0.3	0.4
Moved to Ireland 6-10 years ago	2.9	2.5
Moved to Ireland 11-20 years ago	4.5	3.3
Moved to Ireland 20+ years ago	7.7	6.5
Country of birth	Mean and range	
Ireland	84.1	87.0
UK*	10.2	8.3
Other EU**	1.9	1.6
Rest of world***	3.8	3.1

* England, Scotland, Wales

** Poland, Romania, Czech Republic, Hungary, Bulgaria, Slovakia, Croatia, Lithuania, Slovenia, Latvia, Estonia

*** India, Pakistan, Bangladesh

¹⁰ Not necessarily biological parents.

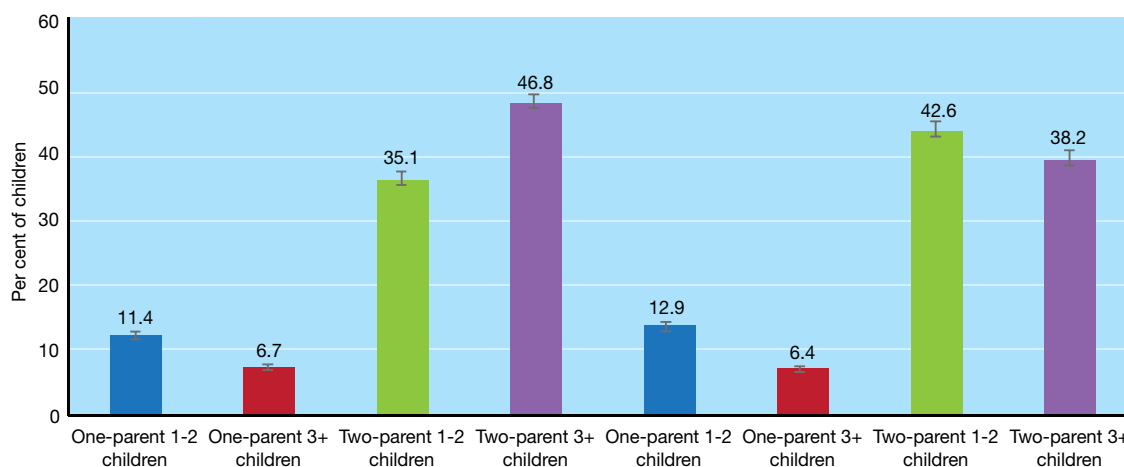
The Secondary Caregiver was generally male (98 per cent) and in 92 per cent of cases was the 13-year-old’s parent. The Secondary Caregiver was the step-parent (partner of the Primary Caregiver) in just over six per cent of cases.

The Primary Caregiver was, on average, 43.5 years of age, and the Secondary Caregiver somewhat older, at 46.0 years. There was a substantial range in ages of both caregivers, rising to 76 years for the Primary Caregiver and 82 years for the Secondary Caregiver. The older ages are almost always cases where the 13-year-old is cared for by a grandparent or grandparents.

Most Primary and Secondary Caregivers were born in Ireland, with a slightly higher figure for the Secondary Caregivers than for the Primary Caregivers (87 per cent compared to 84 per cent). A further seven per cent of caregivers, although not born in Ireland, took up residence in Ireland 20 or more years before the interview. Most of the 13-year-olds’ parents not born in Ireland were born in Britain (10 per cent of the Primary Caregivers).

Figure 2.1 provides a breakdown of the family types when the children were nine years old and when they were 13 years old. Error bars are used in the figure to indicate the confidence interval for each figure reported. Where the confidence intervals do not overlap, a researcher can be ‘95 per cent confident’ that the differences across periods are statistically significant.

Figure 2.1: Type and size of families of Child Cohort at ages 9 and 13



Source: Analysis by authors of the *Growing Up in Ireland* Child Cohort data at ages nine and 13. The figure also uses error bars to indicate the low and high bounds for the 95% confidence interval for the percentage estimate.

The proportion of children living in the larger and smaller one-parent families remained relatively stable over the period. However, there was a reduction in the proportion of Study Children living in the larger two-parent families (with three or more children, from 47 to 38 per cent) and an increase in the proportion living in the smaller two-parent families (one or two children, from 35 to 43 per cent). This often reflects older siblings who were resident at the first interview having turned 18 years of age by the second interview, and thus no longer considered ‘children’, rather than a real change in household composition.

Table 2.2 shows how family type changed (if at all) for the Study Child between nine and 13 years of age. The figures relate to Study Children in the sample at 13 years of age. They show that almost 78 per cent were in two-parent families at both interviews, and 15 per cent were in one-parent families at both

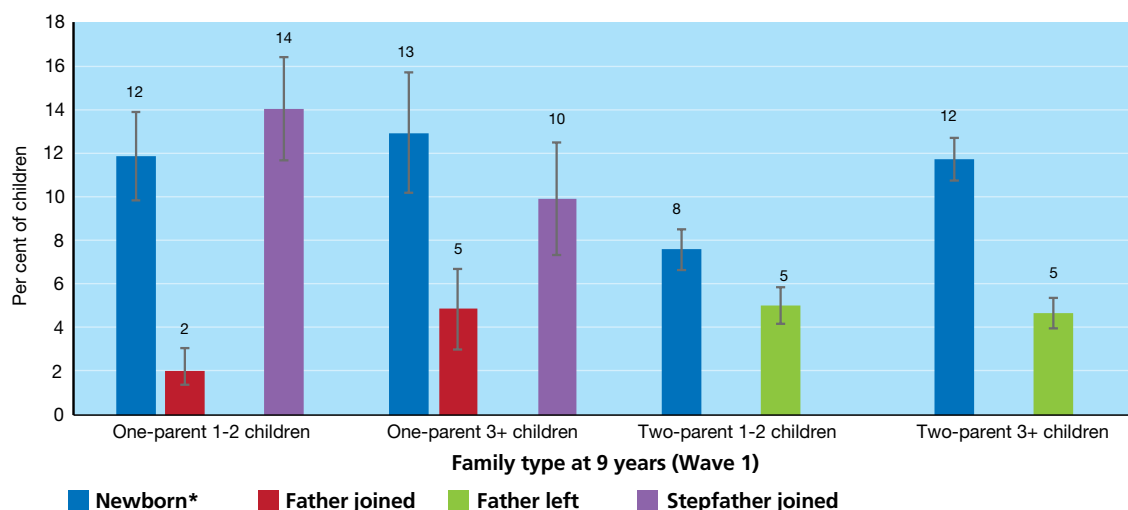
interviews. Just under five per cent had changed from two-parent to one-parent and a slightly smaller percentage (3 per cent) changed from one- to two-parent units.

Table 2.2: Changes in family type between ages 9 and 13

Family type at 9 years	Family type at 13 years	
	One-parent	Two-parent
One-parent	14.6%	3.2%
Two-parent	4.7%	77.5%
Total	19.3%	80.7%

Figure 2.2 summarises some of the main changes in family composition between the ages of nine and 13. The chart is based on family type when the Study Child was nine years old and shows the prevalence of new births in the family, as well as fathers and stepfathers joining or leaving the family home by the time the child was 13.

Figure 2.2: Summary of change in family composition between 9 and 13 years, classified by family type at 9 years



* Born since the child was age nine

Nine per cent of all families had a new birth over the period in question. This incidence of new birth is lower among the smaller two-parent families (eight per cent for two-parent families with one or two children compared to 12 to 13 per cent for the other family types – a statistically significant difference). Fathers joined family units in just under five per cent of larger one-parent families and in just over two per cent of smaller ones. In contrast, fathers ceased to reside in the family home in just under five per cent of two-parent families between the time the Study Child was nine and 13 years of age.

Table 2.3 focuses in greater detail on the prevalence of newborn children (in most cases representing a new sibling for the Study Child¹¹) between the Study Child ages of nine and 13, classified according to change in family structure in the same period. The first column shows the family types in which the new births occurred. This will be very much influenced by the sizes of the groups (shown in the third column of the table). By far the greatest proportion were to families that were two-parent in both periods (nearly 72 per cent). This is not surprising, given that nearly 78 per cent of the 13-year-olds were in families of this type

¹¹ Given the definition of family type, it is possible that a newborn in a multi-family household would not be the Study Child's sibling. The prevalence of this was very low.

(third column). Sixteen per cent of new births occurred in families that had been one-parent at age nine but were two-parent by age 13. Fewer than 10 per cent of the new births were in each of the other family types (one-parent in both periods and changing from two-parent to one-parent).

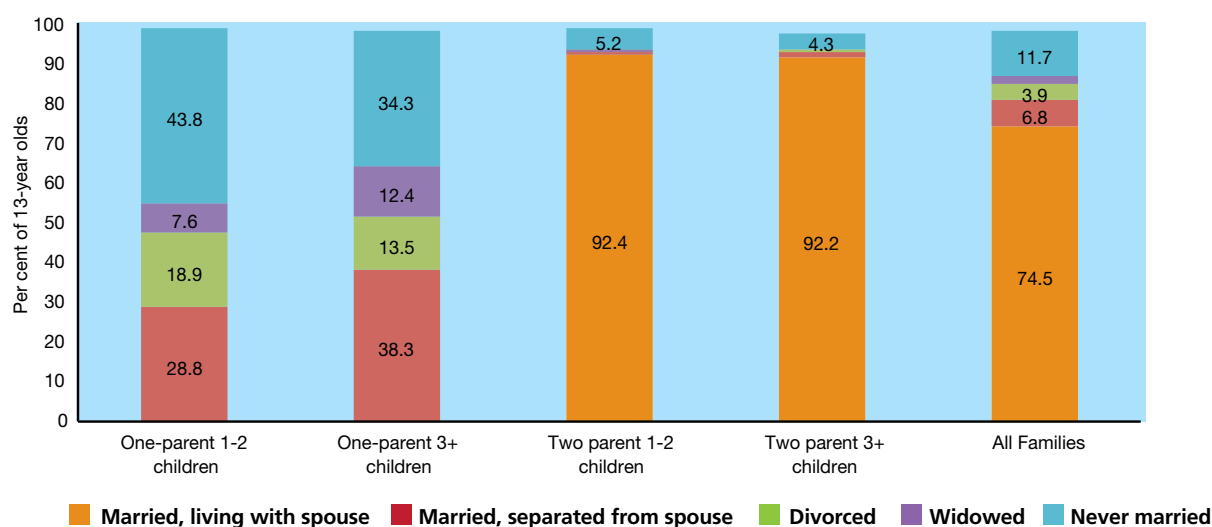
Table 2.3: Percentage of new births in family since Study Child was 9 years old, by transition type and overall

Family type at age 9 and age 13	Percentage of new births in each family type	Percentage of each family type that had a new birth	Percentage of 13-year-olds in this family transition type
One-parent family at both ages	7.7%	4.8%	14.6%
One-parent to two-parent family	15.5%	44.8%	3.2%
Two-parent to one-parent family	5.1%	10.0%	4.7%
Two-parent family at both ages	71.8%	8.5%	77.5%
All families	100.0%	9%	100.0%

The second column provides a slightly different perspective: it shows the percentage of each family/transition combination that had a new birth in the period. Just over eight per cent of families who were two-parent at both nine and 13 years of age experienced a new birth. This is the most common type of family, which is why they account for such a high proportion of new births (in column one). On the other hand, 10 per cent of those who changed from a two-parent to one-parent structure had a newborn in the family home between the Study Child ages of nine and thirteen. The most notable figure in the table, however, is that 45 per cent of the small number of families (3.2 per cent, in column three) changing from one to two-parent units experienced a newborn. Much of this is associated with the consolidation of new relationships, and starting off a new phase of life with a new partner. This, of course, means that the Study Children involved have had to adjust to both a new parent figure in the family home and a new baby between the ages of nine and 13.

Figure 2.3 summarises the composition of 13-year-olds’ families according to the Primary Caregiver’s marital status. In overall terms, about three-quarters (74.5 per cent) of the parents of 13-year-olds were married and living with their spouse, 6.8 per cent were married and separated, 3.9 per cent divorced and 11.7 per cent had never married.

Figure 2.3: Type of family of 13-year-olds in each family type by Primary Caregiver’s marital status



Turning to the one-parent families, Figure 2.3 indicates that separation or divorce is evident in approximately half of one-parent families (48 per cent of the smaller and 52 per cent of the larger one-parent families). Primary Caregivers in smaller one-parent families are more likely than those in larger one-parent families to have never married (44 per cent vs. 34 per cent). In the two-parent families, over nine out of 10 of the Primary Caregivers are married, with only six to seven per cent cohabiting with the Secondary Caregiver (i.e. reporting another marital status).

The educational and class profile of 13-year-olds' families are outlined in Figures 2.4 and 2.5. Figure 2.4 indicates a lower educational profile in particular among larger one-parent families, of whom 37 per cent left education with Junior Certificate or less. This compares with 18-23 per cent for other family types, including smaller one-parent families. Even more striking are the differences in social class profile by family type. Figure 2.5 shows that 46.5 per cent of larger one-parent families were in the *never employed* category – a group that is particularly disadvantaged – compared with only 3-4 per cent among two-parent families.¹² The substantial over-representation of this class category among the larger one-parent families provides an important interpretative framework for many of the trends identified throughout the report.

Figure 2.4: Primary Caregiver's educational attainment by type of family, at 13 years old

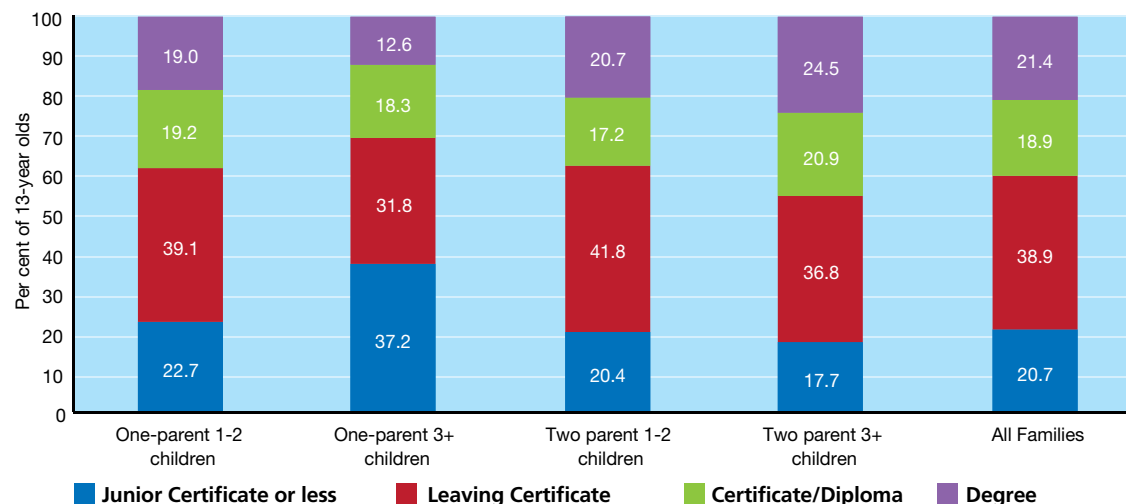
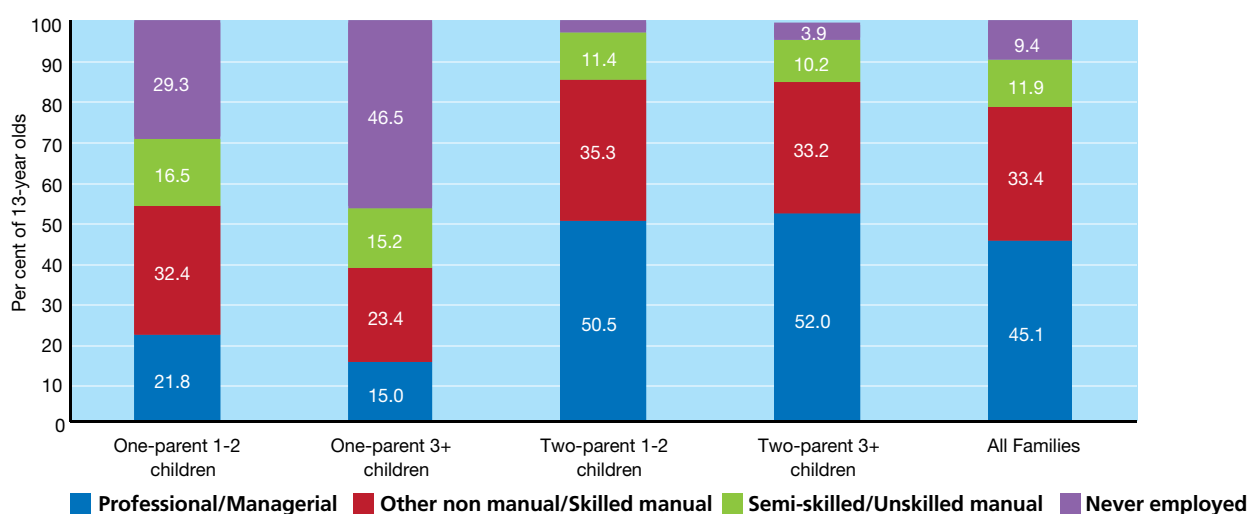


Figure 2.5: Family social class by family type of 13-year-olds



¹² Social class category is assigned on the basis of the usual occupation of the child's caregivers.

2.3 SOCIO-ECONOMIC STATUS OF THE 13-YEAR-OLDS' FAMILIES

A large volume of research documents the important differences between child outcomes according to socio-economic status, encompassing health, cognitive and socio-emotional development (e.g. Duncan and Brooks-Gunn, 1997; Bolger et al., 1995; Duncan et al., 2007; Holzer et al., 2007; Duncan et al., 2010; Green et al., 2005; Cooper and Stewart, 2013). These effects begin prior to birth and persist throughout the life-cycle. The two main accounts of the mechanisms linking economic situation and child outcomes are the family stress model and the investment model.

The *family stress model* describes the pathway through which economic difficulties can affect child outcomes in terms of the impact of economic difficulties on family processes such as parental distress, parental conflict and other aspects of the emotional environment in the home. For example, emotional distress (such as depression) in the parent(s) due to economic pressures can create friction between them (arguments, marital distress), in turn resulting in less effective parenting – i.e. insufficient monitoring, lack of control over the child's behaviour, lack of warmth and support, and conflict, etc. (Conger et al., 1994; Conger et al., 1997; McLeod and Shanahan, 1993). In this case parenting is an intervening or mediating variable explaining the impact of poverty and low income on child development, while also highlighting how different styles of parenting might operate in different ways. For adolescents, low socio-economic status is often associated with poor adaptive functioning, an increased likelihood of depression, and delinquent behaviour (McLoyd 1997). The family stress model is especially relevant to development at adolescence (Conger and Conger, 2002).

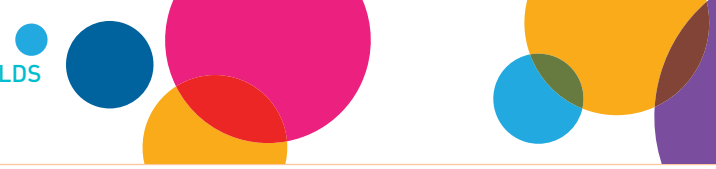
An alternative explanation of the relationship between income and child outcomes is the investment model (Mayer, 1997; Magnusson and Duncan, 2002). In this case, the pathway is via parents' capacity to invest in goods and services that contribute to healthy child development, such as a safe neighbourhood environment, good-quality housing, healthy food, a home with books and educational toys, a place to study, participation in clubs and other activities. The family stress and investment models are not mutually exclusive, however, and both may interact in their impact on child outcomes (Conger and Donnellan, 2007).

In a systematic review of 34 studies (mostly from the US), Cooper and Stewart (2013) concluded that children from lower-income households have less favourable outcomes across a range of areas (cognitive, social-behavioural and health), at least in part because they are poorer and not simply because low income is correlated with other characteristics of the households and the parents. Further, reporting on 13 studies that addressed this issue, the authors concluded that the effects of increasing income were greater at the lower end of the income distribution.

An update, including 27 additional studies to the review, broadly confirmed the earlier findings; additional conclusions were reached on the impact on health (particularly birthweight) and confirming that increases in income towards the bottom of the income distribution have the strongest beneficial effects on child outcomes. The authors conclude that, although increases in family income are unlikely to be a panacea for all aspects of inequality in childhood outcomes, there is enough evidence to indicate that a reduction in poverty would bring benefits across a range of outcomes (Cooper and Stewart, 2017).

A large body of literature links emotional and behavioural problems in childhood to low income and low socio-economic status (Brooks-Gunn and Duncan, 1997 and 1999; Mazza et al., 2017; Fitzsimons et al., 2017). Other studies have found socio-economic status to be negatively associated with the incidence of physical aggression, and weakly but positively associated with prosocial behaviour (Romano et al., 2005), while family income has been found to be weakly negatively associated with hyperactivity, conduct disorder and property offences (Hou and Ram, 2003; Kerr, 2004), although this relationship was found to be age-related, proving stronger for children aged six to 11 than those aged 12 to 16 (Lipman et al., 1996).

Substantial research on poverty and deprivation has been carried out in Ireland in recent years, using data from EU-SILC (e.g. Whelan et al., 2003; Whelan et al., 2007, Whelan and Maitre, 2005). Some recent



work has focused specifically on the prevalence of poverty and deprivation among families with young children (e.g. Russell et al., 2010; Tomlinson and Walker, 2009; Watson and Maitre, 2012; Watson, Maitre and Whelan, 2012). Watson et al. (2012), for example, note that children in Ireland had a higher rate of being at risk of poverty¹³ over the period 2004 to 2010 than the general population. They found that the highest rates of risk of poverty were among older children (aged 12-17 years) and the lowest rate among pre-school children (aged 0-4 years). The level of poverty at the household level does not translate directly into deprivation for the children, however, as the authors found evidence that, even when resources are limited, parents seek to protect the standard of living of their children. Based on a set of 16 items or activities that a child might have or participate in, Watson et al. (2012) note that the percentage of children experiencing an enforced lack¹⁴ was low – below one per cent for seven items and between one and four per cent for another eight. The rates were higher for children in one-parent families, however. About 28 per cent of children in one-parent families lacked at least one child-specific item compared to eight per cent of children living with married parents (Watson et al., 2012).

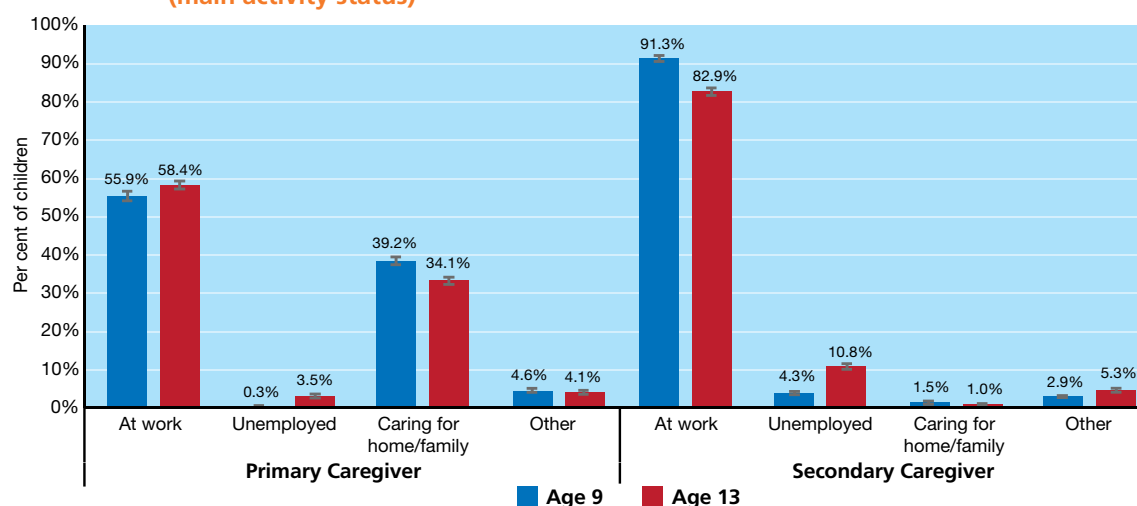
2.4 PARENTAL EMPLOYMENT AND WORK-LIFE BALANCE AT 9 AND 13 YEARS

Parental employment outside the home will generally result in higher family income and more freedom in garnering other resources. This may have a positive effect on child outcomes through, for example, access to private health insurance, higher nutritional content of diet and improvements in parental health and self-esteem (especially maternal health, e.g. Morrill, 2008). Out-of-home working may also have negative effects on outcomes through work-life imbalances, less time for family, and less parental monitoring and supervision (e.g. Gennetian et al., 2010; Berger et al., 2005).

Figure 2.6 summarises the Principal Economic Status of Primary and Secondary Caregivers when the young people were nine and 13 years of age. As outlined in Chapter One, the Primary Caregivers were generally the 13-year-olds’ mothers and the Secondary Caregivers were usually their fathers. Economic status was self-defined by the respondent, based on their own perception of their situation with regard to work, from a list of 10 pre-coded categories presented to them in the course of their interview.

There was a slight increase in the percentage of Primary Caregivers *at work outside the home* (55.9 to 58.4 per cent¹⁵) as well as an increase in the percentage recording themselves as being *unemployed* between the time the young people were nine and 13 years old. This is counterbalanced by a fall in the percentage who identified themselves as being *engaged in home duties* (39.2 to 34.1 per cent). These trends towards greater labour-market participation may reflect reduced childcare commitments as the family moves through the lifecycle, with the children getting older, and the Primary Caregivers re-entering the workforce.

Figure 2.6: Labour-force status of Primary and Secondary Caregiver when Study Child was 9 and 13 (main activity status)



¹³ Using a 60 per cent median income line.

¹⁴ 'Enforced' due to family financial or budgetary constraints.

¹⁵ The change was just statistically significant.

The figures show an 8.4 percentage point fall between the time the young people were nine and 13 years old in the proportion of Secondary Caregivers who were employed outside the home, as well as a 6.5-point increase in the percentage who classified themselves as unemployed. These are very much in line with trends in the economy over the period in question.

The numbers in Figure 2.6 suggest *relative* stability in economic status among main caregivers over the period. Table 2.4, however, indicates that the overall trends in Figure 2.6 mask a substantial degree of change in work at the level of the individual parent. For example, 82 per cent of those who were *at work outside the home/State Training Scheme* when the Study Child was nine years of age were still working outside the home when the Study Child was 13 years of age. About 12 per cent of this group, however, had moved to *caring for home/family*. Similarly, one-quarter of Primary Caregivers who had been *caring for home/family* when the child was nine were *at work outside the home* by the time the young person was 13. Two-thirds (67 per cent) of this group were still living in a household in which the Primary Caregiver was principally involved in *caring for home/family* at the time the young person was age 13.

Table 2.4: Changes in Primary Caregiver’s labour-force status between the Study Child being 9 and 13 years of age

Labour-force status of PCG when Study Child was 9 years of age	At work outside the home/State Training Scheme	Unemployed	Caring for home/family	Other	Total	Per cent at 9 years
	Per cent at 13 years					
At work outside home/ State Training Scheme	82	3.0	12	3	100	56
Unemployed	*	*	*	*	100	*
Caring for home/family	25	4	67	4	100	39
Other	50	*	27	16	100	5
Per cent at 13 years	58	3	34	4	100	100

Note: * indicates too few cases to report.

On average, the Primary Caregivers of 13-year-olds worked slightly more than 27 hours per week outside the home, with 36 per cent of those who worked outside the home doing so for 20 or fewer hours (Table 2.5). Average hours worked by the small proportion of male Primary Caregivers (mostly the 13-year-old’s father) is almost 40 hours per week. This compares with 27 hours among Primary Caregivers who were female (mostly the 13-year-old’s mother). The average hours worked by Secondary Caregivers was 46 per week, with over half of them working for over 40 hours per week.



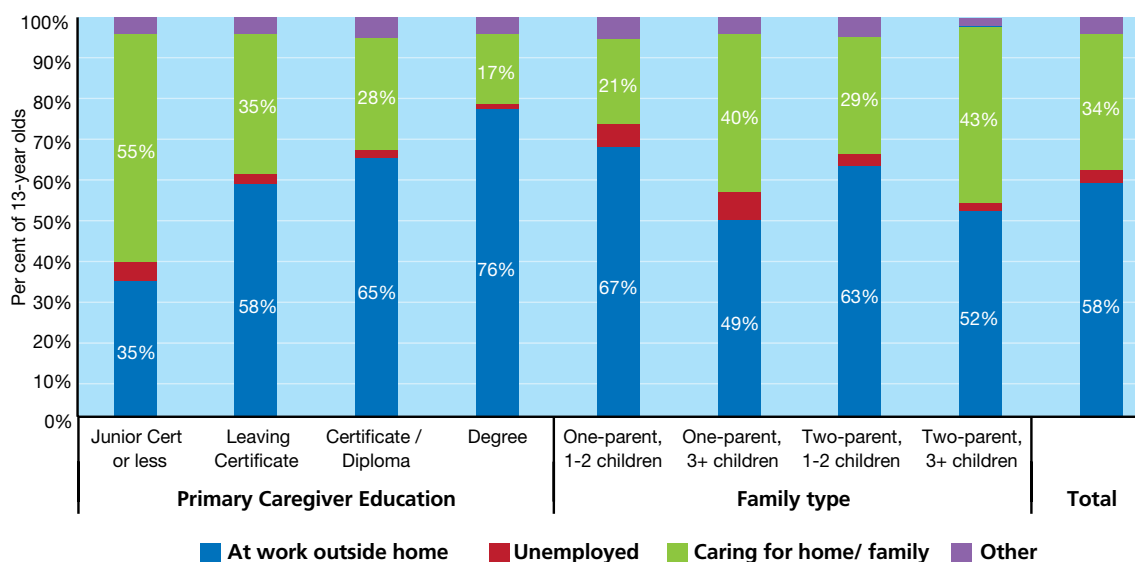
Table 2.5: Hours worked outside the home by Primary and Secondary Caregiver when Study Child was 13 years old

	Primary Caregiver	Secondary Caregiver
Hours per week	<i>Per cent</i>	<i>Per cent</i>
1-10	6	
11-20	30	4 ^a
21-30	25	5
31-40	31	35
41-50	5	32
51+	2 ^b	23
Total	100.0	100.0
Average hours	27.8	45.7
Males	39.6	45.9
Females	27.4	35.3

a Includes 1-20 hours per week – cell size too small to disaggregate.
 b Includes 51+ hours per week – cell size too small to disaggregate.

The work status of Primary Caregivers was strongly linked to their education and also to family structure (Figure 2.7). In general, those who had lower levels of educational attainment were less likely to be at work outside the home and more likely to be engaged in *home duties/looking after the home*. For example, 35 per cent of main caregivers who had left school with a Junior Certificate or less were at work outside the home compared with 76 per cent of those with a third-level degree qualification.

Figure 2.7: Labour force status of Primary Caregiver of 13-year-olds classified by family type and level of educational attainment



The graph also shows that the Primary Caregivers of 13-year-olds in larger one-parent families were least likely to be at work outside the home (49 per cent). Thirteen-year-olds in small one-parent families, however, were most likely to have a Primary Caregiver working outside the home (67 per cent). In broad terms, there

was relatively little difference in the percentages of mothers working outside the home between one- and two-parent families, when account is taken of family size: 49 per cent for larger one-parent families compared with 52 per cent for their two-parent counterparts and 67 per cent and 63 per cent for smaller families (1-2 children).

Working outside the home has clear advantages in terms of income and resources available to the family. It may, of course, also be associated with pressures such as work-life imbalance and may negatively affect the quantity and quality of time available for family life. To investigate potential work-life conflicts, Primary and Secondary Caregivers working outside the home were asked to record their agreement or otherwise with a series of statements on how their work responsibilities affected their family life and how family responsibilities affected their work life. The results are summarised in Table 2.6.

Sections A and B of Table 2.6 indicate that substantial minorities (28 per cent) of Primary Caregivers *agreed* or *strongly agreed* that they had missed out on family activities as a result of their work responsibilities, while 32 per cent felt that their family time was less enjoyable as a result of work. Even larger percentages of Secondary Caregivers felt that their work had negatively affected their family; 42 per cent felt they had missed out on family activities, and 28 per cent that family time was less enjoyable than it would otherwise have been. Sections C and D of the table consider the effects of family life on work. This indicates that almost one-quarter (23 per cent) of Primary Caregivers and 16 per cent of Secondary Caregivers said that, as a result of family responsibilities, they had turned down work activities or opportunities they would otherwise have preferred to take on. Similarly, almost 21 per cent of Primary and almost 17 per cent of Secondary Caregivers agreed that their work time was less enjoyable and more pressured because of their family responsibilities.

Table 2.6: Work-life balance/imbalance among Primary and Secondary Caregivers of 13-year-olds

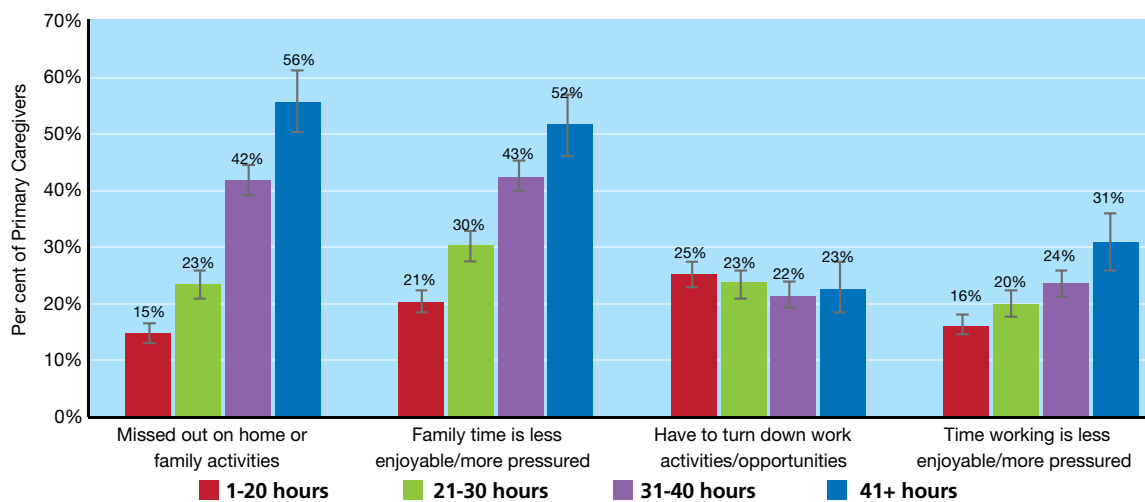
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total
<i>Because of your work responsibilities</i>	<i>Per cent</i>					
A) You missed out on family activities						
Primary Caregiver	29.3	36.5	5.8	20.3	8.2	100.0
Secondary Caregiver	18.0	30.8	8.8	30.7	11.7	100.0
B) Your family time is less enjoyable						
Primary Caregiver	22.5	36.4	8.9	25.5	6.7	100.0
Secondary Caregiver	20.3	40.1	11.1	22.2	6.3	100.0
<i>Because of your family responsibilities</i>						
C) You have to turn down work activities or opportunities that you would prefer to take on						
Primary Caregiver	26.7	43.0	6.8	18.2	5.3	100.0
Secondary Caregiver	27.8	48.1	8.2	13.5	2.3	100.0
D) The time you spend working is less enjoyable and more pressured						
Primary Caregiver	24.0	46.2	9.2	17.4	3.3	100.0
Secondary Caregiver	24.6	48.4	10.2	14.1	2.7	100.0

Note: Based on Primary Caregivers who recorded that their principal economic status (PES) was at work outside the home / State Training Scheme. Excludes those with other statuses, even if they also had a part-time job.

As might be expected, work-life imbalances were strongly related to the number of hours worked. Figure 2.8 shows the percentages of Primary Caregivers who agreed or strongly agreed with the four statements on work-life balance, classified by number of hours worked outside the home each week. The left side of the chart shows that work-life imbalance for Primary Caregivers increases sharply (and significantly) with hours worked. For example, 15 per cent who worked 1-20 hours per week outside the home indicated that their family time was less enjoyable and more pressured because of their work responsibilities. The comparable figure was 56 per cent among those working 40+ hours per week – a group that is made up of seven per cent of Primary Caregivers who worked outside the home. Equally, the percentage of Primary Caregivers who recorded that family time was less enjoyable and more pressured increased significantly with number of hours worked outside the home.

The effect of family responsibilities on work is shown in the right-hand-side of the chart. In this case, the relationship with hours worked is weaker. The differences in the percentage of Primary Caregivers reporting having had to turn down work opportunities were not significantly related to number of hours worked. However, those working over 40 hours per week were more likely to agree that time working was less enjoyable and more pressured (31 per cent) than those working between 20 and 40 hours (20 to 24 per cent), while those working fewer than 21 hours per week were less likely to agree with this statement (16 per cent).

Figure 2.8: Measures of work-life balance for Primary Caregivers classified by number of hours worked outside the home



2.5 FAMILY INCOME AND FINANCIAL STRESS

The influence of family income and financial circumstances (including financial stress) on child outcomes has been considered at length in the international literature (e.g. Bolger et al., 1995; Duncan and Brooks-Gunn, 1997; Brooks-Gunn and Duncan, 1997; Aber et al., 1997; Yeung et al., 2002; Wood, 2003; Kiernan and Huerta, 2008; Heckman, 2008; Duncan et al., 2010; Cooper and Stewart, 2013 and 2017) and in research in Ireland (Russell et al., 2010; Watson and Maitre, 2012; Watson et al., 2014).

2.5.1 VARIATIONS IN FAMILY INCOME

Figure 2.9 summarises variations in equivalised disposable household income among the families of 13-year-olds. The income figures have been adjusted or 'equivalised' to account for differences in the composition

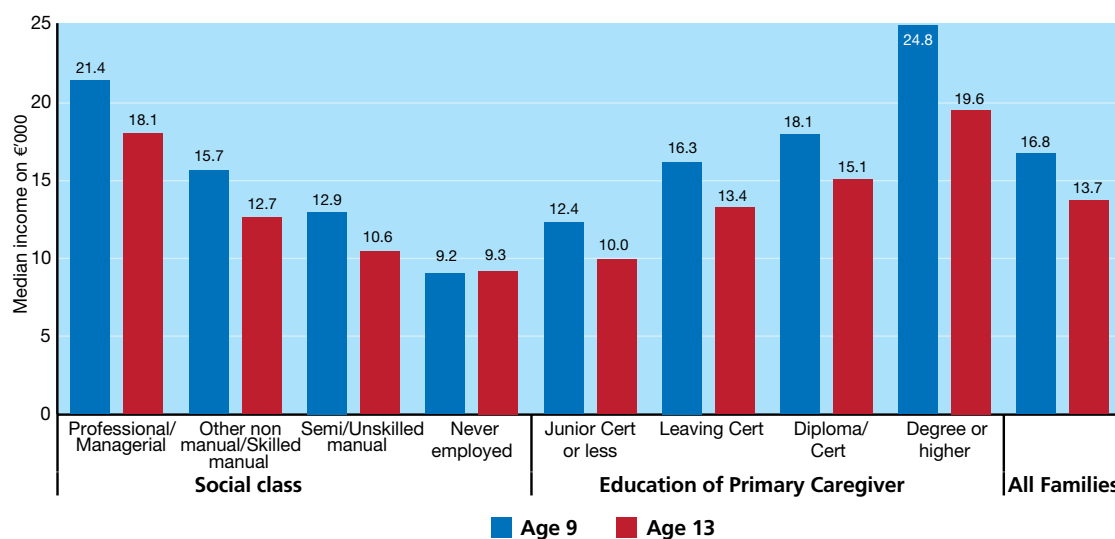
of families (number of adults and children), using internationally adopted procedures. Because of this adjustment, the median equivalised family income will be quite a bit lower than the median gross family income.¹⁶

Figure 2.9 shows that median equivalised family income was €16,800 in 2007/2008, falling to €13,700 four years later by the time the young person was 13 years old (in 2012). This represents a reduction of about 18 per cent in the period.¹⁷

The figures in the graph clearly illustrate that median income in both years was strongly related to family social class and Primary Caregiver’s level of educational attainment. At the time of the first interview when the Study Child was nine years of age, in terms of social class, median income ranged from €21,400 for the most socially advantaged group to €9,200 for the most disadvantaged group. The same relationship was evident when the families were re-interviewed when the Study Child was 13 years old, with higher median equivalised incomes where the Primary Caregiver had higher levels of education and where the family social class was professional/managerial. All groups experienced a fall in income over the period, with the exception of those in families where the adults had never been in employment. The median incomes of this social class were by far the lowest in both periods, but their incomes were prevented from falling further by the floor provided by social welfare. Although the drop in median income was greatest in absolute terms for the professional/managerial class, there was little difference between the classes (apart from the never employed) in terms of proportionate reductions in median figures. Nevertheless, the drop in incomes may have been more keenly felt by those families already struggling to make ends meet.

The same general trends are apparent in relation to Primary Caregiver’s education. At the first interview, the average equivalised income of a nine-year-old’s family in the most educationally disadvantaged group was €12,400. This increased progressively with education to stand at €24,800 among graduate-level families. The graph shows that median income fell for families in all educational categories over the four-year period. Despite the reduction, however, the strong positive relationship between education and income is still evident at the later period in 2012.

Figure 2.9: Median annual equivalised household income for families of children at 9 and 13 years of age, classified by family social class and Primary Caregiver’s education



¹⁶ The Irish national equivalence weights of 1.0 for the first adult; 0.66 for subsequent adults and 0.33 for each child under 14 years of age have been used. Note that the median equivalised disposable income will be considerably lower than the median gross (before tax and not adjusted for household size and composition) income.

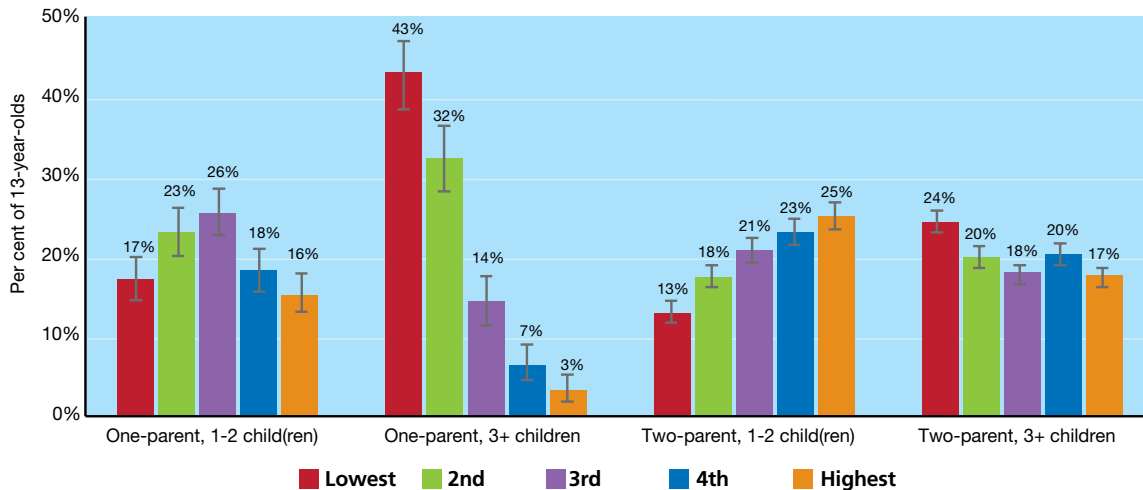
¹⁷ This is slightly larger than the drop across all age groups. SILC data showed median equivalised income falling by about 15 per cent between 2008 and 2012 (CSO, 2015, *Survey on Income and Living Conditions (SILC) 2013 results*).



Figure 2.10 presents details on where family types are located within the income distribution, on the basis of income quintile. If all families were distributed equally within the income distribution, one would expect that 20 per cent of each family type would fall into each of the five income quintiles. Their distribution within each type would effectively be a horizontal line at 20 per cent. The chart shows substantial over-concentration of larger one-parent families in the lowest two income quintiles; 43 per cent of this group were in the lowest quintile and 32 per cent in the second quintile. Only about 10 per cent of this family type were in the top two income quintiles (compared to an expected 40 per cent if the group were spread equally throughout the income distribution). There was an over-concentration among smaller one-parent families in each of the second and third quintiles. A total of 34 per cent of this group was in the top two income quintiles (an effective ‘under-representation’ of six percentage points).

In contrast, there was an over-concentration (of about eight percentage points) among smaller two-parent families in the top two quintiles. The larger two-parent families were relatively equally spread across the income distribution, but with some over-representation in the bottom quintile (24 per cent).

Figure 2.10: Family type of 13-year-olds classified by family equivalised income quintile



2.6 ECONOMIC STRAIN AND THE RECESSION

Figure 2.11 indicates the extent to which financial strain was felt by families when the Study Child was nine and when the Study Child was 13. This is based on a direct question to the Primary Caregiver asking him/her to record how difficult their family found making ends meet. Responses were on a six-point scale from ‘with great difficulty’ through to ‘very easily’. Figure 2.11 shows that 61 per cent of the families of 13-year-olds recorded that they were making ends meet with *great difficulty*/ *with difficulty* or *with some difficulty*. The comparable figure when the Study Child was nine, four years previously, was 30 per cent. Clearly, families were finding it more difficult to manage financially in mid-recession, when the Study Child was 13.

Figure 2.11: Difficulties in making ends meet in families of children at 9 and 13 years of age

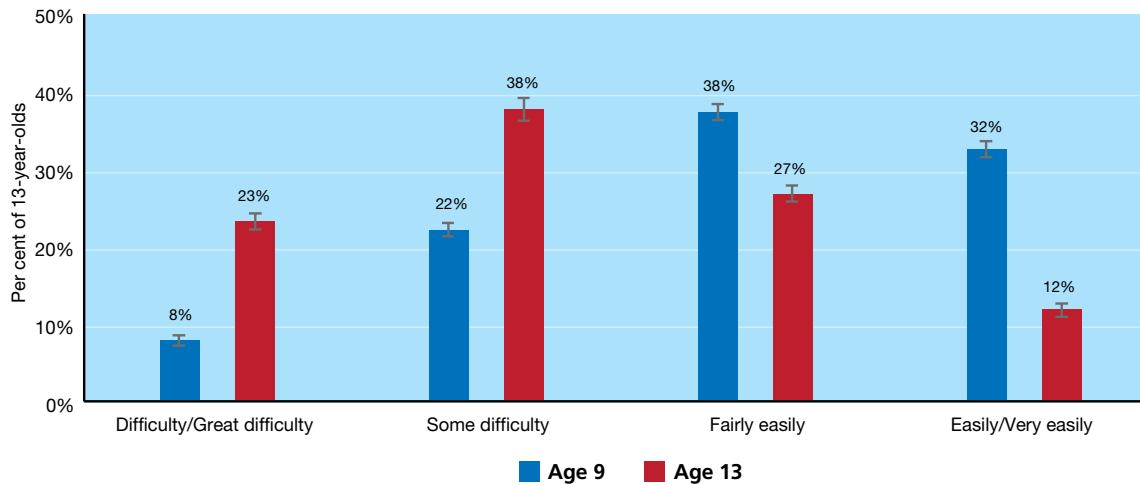
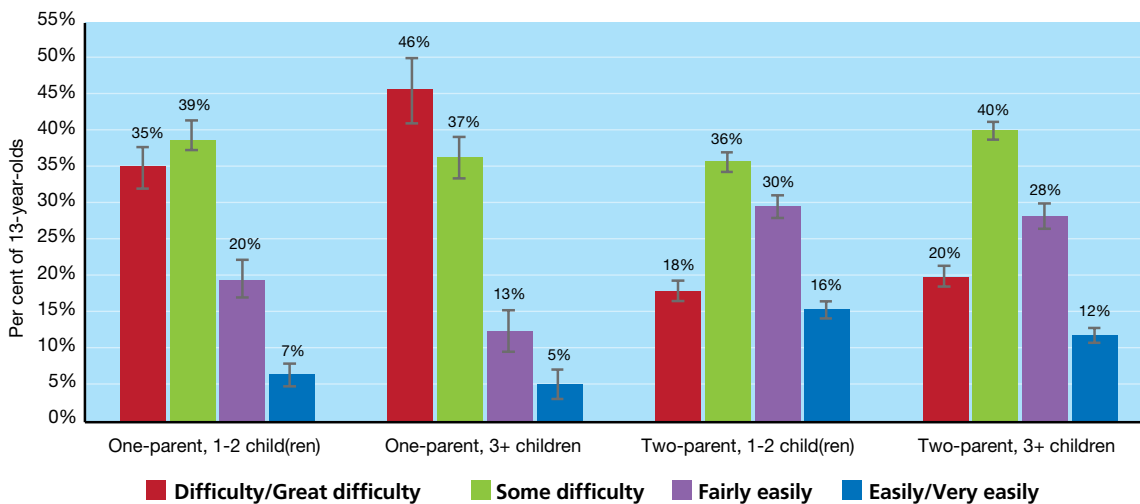


Figure 2.12 shows the degree of financial strain experienced by different family types. This shows clearly the high levels of financial strain felt by one-parent families, especially larger ones – 82 per cent of larger and 74 per cent of smaller one-parent families recorded that they experienced some level of difficulty in making ends meet. The comparable figures were 60 per cent and 54 per cent, respectively, for the larger and smaller two-parent families.

Figure 2.12: Difficulties in making ends meet of families with children at 13 years of age, according to family type

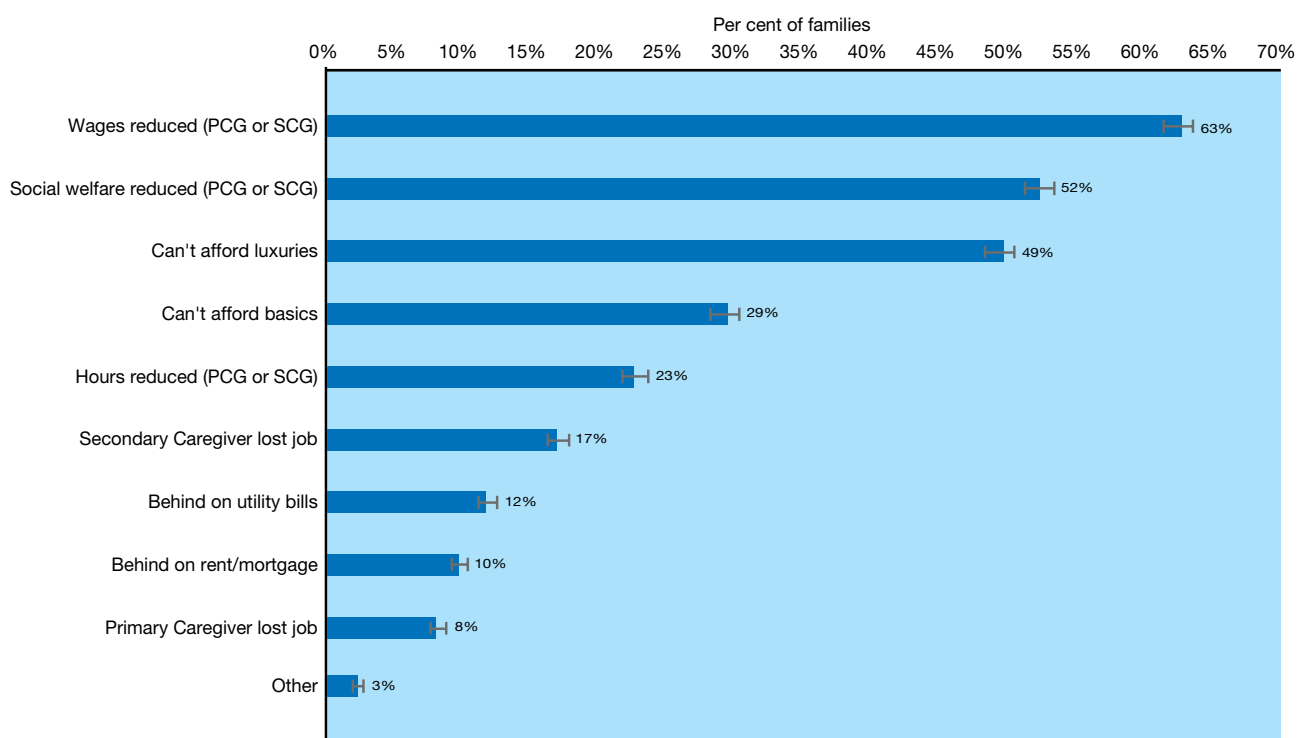


In the course of their interview, Primary Caregivers were asked to indicate the effect that the recession had had on their family since the Study Child was nine years old. Response categories were: a *very significant effect*, a *significant effect*, a *small effect* or *no effect at all*. A total of 23 per cent of families said it had a *very significant effect*, 38 per cent that it had a *significant effect* and 32 per cent a *small effect*. Just over seven per cent said it had *no effect at all*.



Families who recorded having been affected in some way by the recession were asked to indicate (from a pre-coded list of 10 possible effects) how it had affected them. The results are presented in Figure 2.13, shown as a percentage of all families. Given the recession and the national austerity measures implemented between the time the Study Child was nine and 13, it is not surprising that reduction in wages (63 per cent) and social welfare payments (52 per cent) were most frequently mentioned by families. Most notable from the chart, however, are the relatively large minorities of 13-year-olds who were living in families which said they *couldn't afford/had cut back on basics* (29 per cent), were *behind with utility bills* (12 per cent) or *behind with the rent/mortgage* (10 per cent). These three are all relatively basic types of payments. The fact that such substantial minorities of families with young 13-year-olds said they had had to cut back on or could not afford basic payments of this nature is a matter of concern.

Figure 2.13: Effects of the recession on family income since the Study Child was 9 years old



PCG = Primary Caregiver, SCG = Secondary Caregiver

2.7 SUMMARY

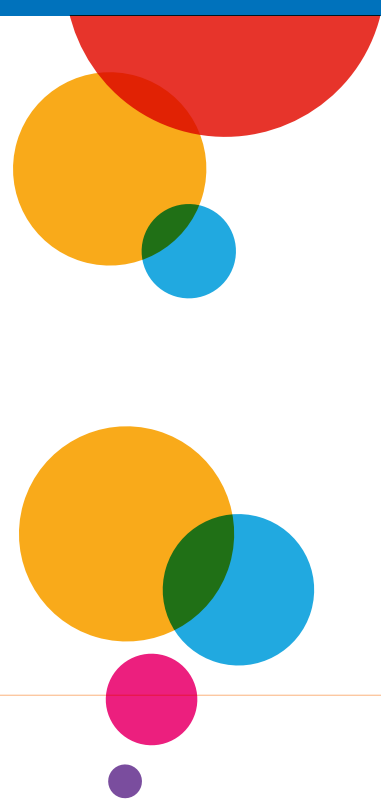
This chapter provided information on the family and economic context in which the 13-year-olds live in order to facilitate the interpretation of findings throughout the report. The main points are as follows:

- Most 13-year-olds live in two-parent families (81 per cent) and most had no change in family structure since the age of nine. However, since the age of nine, some Study Children experienced significant change in the family, such as a change from two- to one-parent (five per cent), a change from one-parent to two-parent (three per cent), or a new birth into the family (nine per cent).
- Family type and measures of social disadvantage are associated. One-fifth of the Primary Caregivers had Junior Cert.-level education or less while slightly more than one-fifth had a degree or higher level of education. The larger one-parent families were particularly disadvantaged in terms of the level of education of Primary Caregivers, with 37 per cent having completed Junior Cert.-level or less.
- As the children grew older, and less dependent on their Primary Caregivers, more of the latter moved into employment. Among Primary Caregivers who had been caring for home/family when the Study Child was nine years old, one-quarter had moved into employment by the time the Study Child was aged 13. The effects of the recession could be seen in the employment of both Primary and Secondary Caregivers, however. Despite a certain percentage of Primary Caregivers moving into employment, the overall percentage at work changed very little (up from 56 per cent when the Study Child was aged nine to 58 per cent at age 13) because other Primary Caregivers became unemployed or left the labour force in the period. Among Secondary Caregivers, the percentage in employment actually fell between the two time periods (from 91 to 83 per cent). These figures mask an even greater level of job loss due to recession as they do not take account of cases where the parents lost a job but managed to find another. In 17 per cent of families the Secondary Caregiver lost their job or was made redundant as a result of the recession while the figure was eight per cent among Primary Caregivers.
- Other effects of the recession on families were evident in that 29 per cent had difficulty in affording basics; 12 per cent had fallen behind on utility bills and 10 per cent on the rent or mortgage. A general question on ease or difficulty in making ends meet also revealed the impact of the recession: eight per cent of Primary Caregivers had difficulty or great difficulty in making ends meet when the Study Child was nine years old but this had increased to 23 per cent by the time the Study Child was aged 13, at the height of the recession.
- There was evidence of problems related to work-life balance among Primary Caregivers who worked long hours; 56 per cent of those working more than 40 hours reported that they missed out on home or family activities and 52 per cent that family time was less enjoyable or more pressured, compared to figures of 15 per cent and 21 per cent, respectively, for those working 20 hours or less.



Chapter 3

PHYSICAL HEALTH AND MATURATION AMONG 13-YEAR-OLDS



3.1 INTRODUCTION

Although adolescence can be considered as a discrete developmental period in its own right, in the life-course perspective adolescence is a dynamic stage occurring between childhood and early adulthood (Johnson et al., 2011). It is a time of rapid developmental change, characterised most markedly by the changes in physical development that accompany sexual and reproductive maturation. Adolescence is normally a period of relative good health. Because it is a time of rapid growth and physiological change, accompanied by important individuation and socialisation processes, coping with poor health or a chronic illness can constitute a major challenge for the individual, as well as his/her family (WHO, 2002). As at other stages of the life course, variations in health at this stage are associated with educational attainment and socio-economic position. Poor health in adolescence may in turn come to affect adult health outcomes.

The association between wealth (or income) and health has been acknowledged for centuries (Adler and Stewart, 2010; Phelan et al., 2010). One of the most consistently documented findings in epidemiological research is that child health is socially patterned and that children at the lower end of the social spectrum are disproportionately more likely to suffer the burden of ill health (Boyce and Keating, 2004). These patterns have been observed across a wide variety of health outcomes, including low birthweight (Kramer et al., 2000; McAvoy et al., 2006); general health status (Case and Paxson, 2002); chronic illness (Hysing et al., 2009); oral health (Nunn, 2006); accidents and injury (Roberts and Power, 1996); obesity (Stamatakis et al., 2010), and socio-emotional health (Bradley and Corwyn, 2002; Propper and Rigg, 2007; Nolan and Layte, 2014). The gradient is apparent in early infancy and extends through childhood and adolescence into adulthood (Chen, 2004), though there is some suggestion that the strength of the association may vary across childhood and adolescence (Chen et al., 2006). Nolan and Layte (2014), for instance, note the absence of income gradient in health in infancy, but the relationship was significant for nine-year-olds. Gradients are found irrespective of whether education, income, social class or a large number of other SES indicators are used, and exist even in countries where there is universal healthcare coverage (Currie and Wanchuan, 2007).

3.2 PHYSICAL HEALTH

In *Growing Up in Ireland*, Primary Caregivers were asked to describe the 13-year-old’s health in the past year – with response options of *very healthy, no problems*; *healthy but a few minor problems*; *sometimes, quite ill*, and *almost always unwell*. The final two categories were combined as the numbers in them were small. Figure 3.1 indicates that the majority of 13-year-olds were rated as being *very healthy*, although a sizeable minority (23 per cent) experienced some *minor problems* and two per cent were *sometimes quite ill/almost always unwell*. From Figure 3.1, it can be seen that there was little difference in aggregate terms in parent-reported health status between nine and 13 years of age.

Figure 3.1: PCG report of child’s general health at age 9 and 13

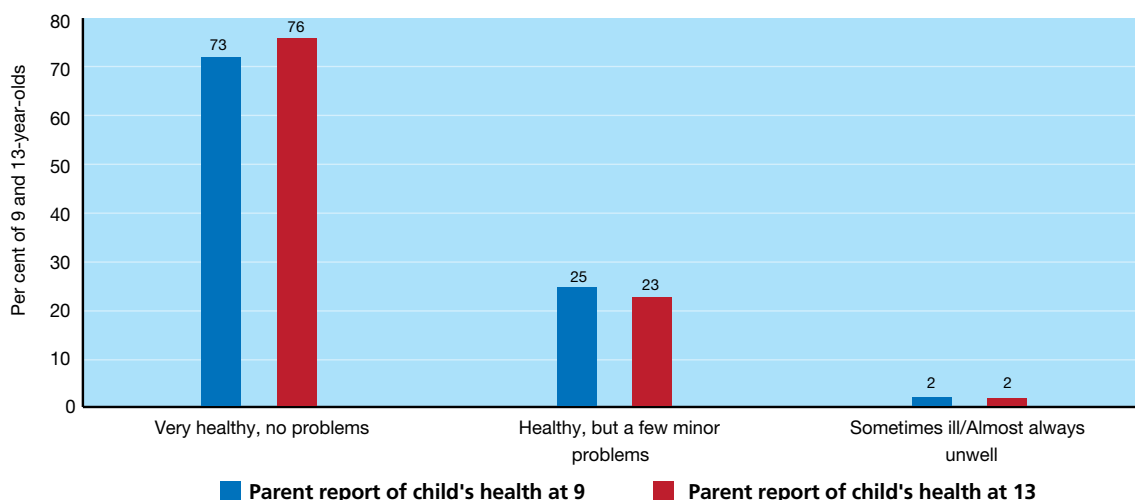
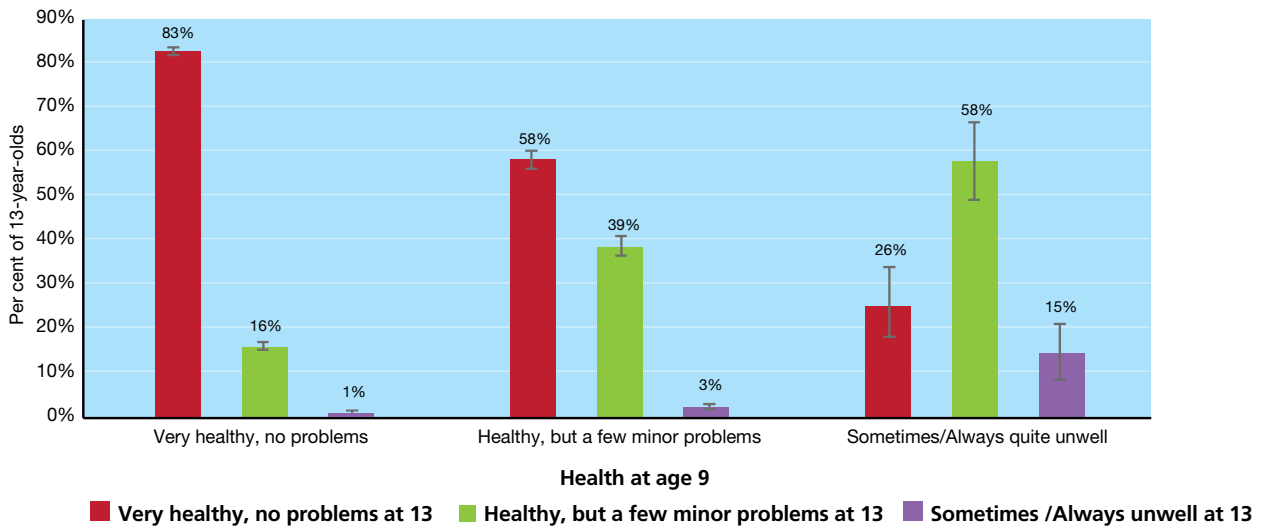




Figure 3.2 illustrates change and stability at the individual level. It shows that parent-reported health status changed for many children in that period. For instance, 83 per cent of those who had been *very healthy* at age nine were also *very healthy* four years later at age 13; 16 per cent were *healthy but with a few minor problems* at age 13 and less than one per cent were *sometimes or almost always unwell*. Of those who had been *healthy, with a few minor problems at age nine*, 39 per cent were in that health status at age 13; 58 per cent improved and were *very healthy*, and three per cent were *sometimes or almost always unwell*.

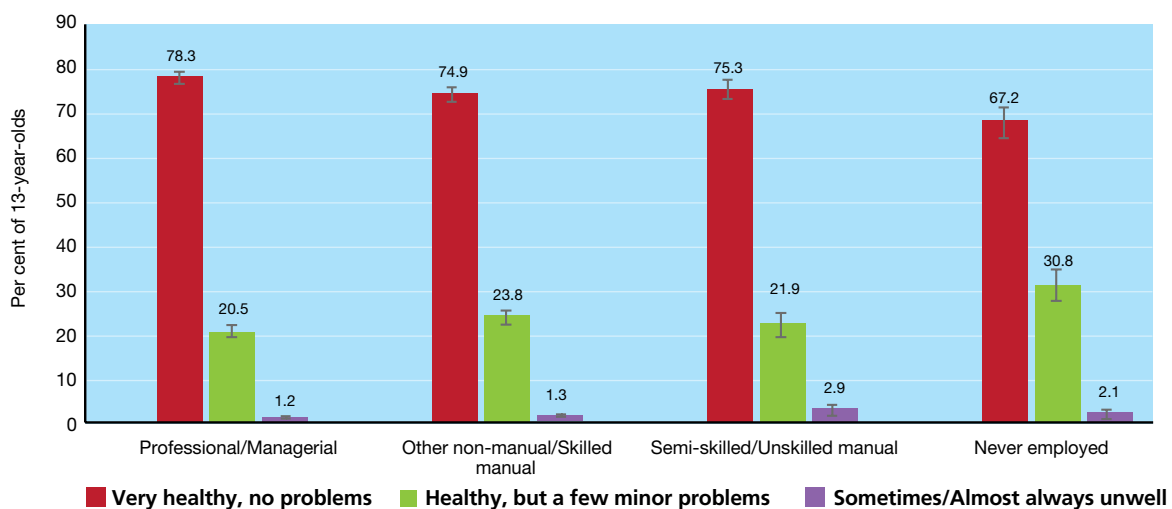
Figure 3.2: Changes in child’s general health between 9 and 13 years, based on PCG report



Of those who had been *sometimes quite ill/almost always unwell* at age nine, 26 per cent were *very healthy* by age 13 and 58 per cent were described as *healthy with a few minor problems* but 15 per cent remained *sometimes quite ill/almost always unwell*. It is encouraging that most of those who had been *sometimes quite ill/almost always unwell* at age nine had improved by age 13.

A social gradient was evident from parents’ ratings of their child’s health at 13 years of age. Figure 3.3 shows that those in the highest social class group were much more likely to be rated as *very healthy, no problems* (78 per cent), especially when compared to those in the lowest social class, where only 67 per cent of parents described their 13-year-old as *very healthy*. The latter group was also more likely to have some problems, either minor (31 per cent), or more severe (two per cent) than those in the highest social group (21 per cent and one per cent respectively). The difference between the professional/managerial social class and the lowest social class are statistically significant.

Figure 3.3: PCG report of 13-year-old’s health by family social class



Furthermore, the social gradient for those in the *very healthy* group remained fairly stable since age nine when 77 per cent of those in the highest social group were described as *very healthy* compared to 61 per cent of those in the lowest social group (not shown here).

3.3 CHRONIC ILLNESS

Chronic illness is not uncommon in childhood, affecting a sizeable minority of young people. While the prevalence varies (depending on the definition employed), it has been estimated that chronic illness affects anywhere between 10 and 31 per cent of children (Halfon and Newacheck, 2010; Northam, 1997; Geist et al., 2003). Although the majority of children and families adapt to chronic illness, as a group these young people are at increased risk for a number of adverse outcomes, including reduced schooling and academic attainment (Eide et al., 2009; Maslow et al., 2011) and higher risks of psychological problems (Hysing et al., 2009). Longitudinal studies have also shown that the experience of childhood chronic illness may constrain educational attainment and socio-economic position in adulthood (Maslow et al., 2011; Kokkonen, 1995). For example, a study by Maslow and collaborators (2011), using data from the National Longitudinal Study of Adolescent Health, examined the impact of having a non-asthmatic chronic illness at 12-19 years of age. They found that children with such chronic illnesses were less likely to have graduated from high school, and were more likely to be unemployed and claiming disability supports in young adulthood. Understanding the mechanisms conferring this additional risk for poorer outcomes among children with a chronic illness as well as the protective factors that buffer children against adversity is an important prerequisite to developing programmes aimed at improving the well-being of children and families living with a chronic illness.

While 89 per cent of 13-year-olds had no ongoing illness, 11 per cent of parents reported that their child had a chronic illness. Of these, 52 per cent were reported as being *hampered in their daily activities* by that illness. Furthermore, boys were significantly more likely than girls to have a chronic illness (13 per cent compared to nine per cent), which was similar to the level of prevalence at nine years (13 per cent and nine per cent, respectively).

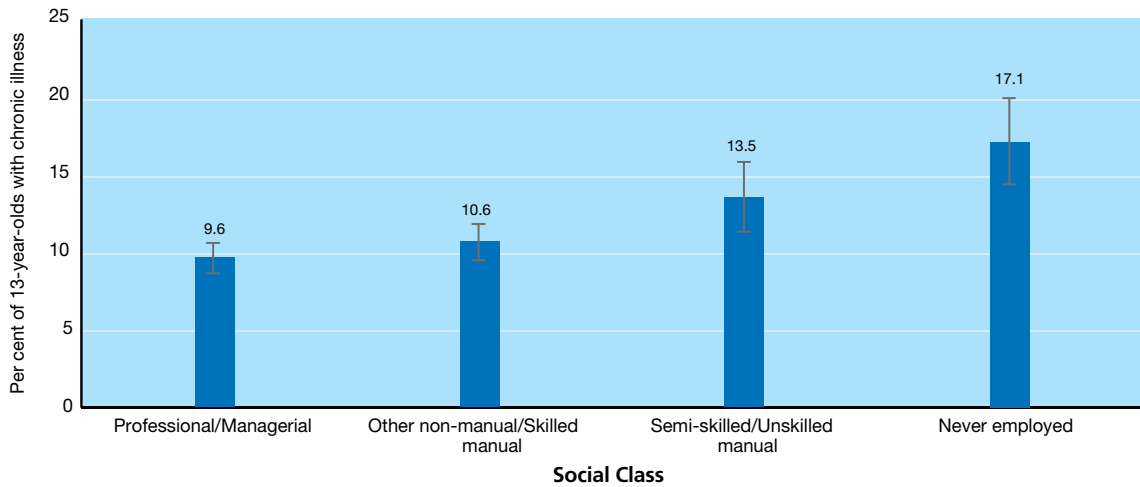
Of those with a chronic illness, the most frequently reported was disease of the respiratory system (38 per cent). This had been higher at age nine (at 44 per cent). Most of those who had respiratory problems at age nine had improved by age 13: of those who had this problem at nine years old, 39 per cent still had it at 13. On the other hand, two per cent of those who did not have a respiratory problem at nine years had developed one by the time they were 13. The second most prevalent problem at 13 years of age was mental or behavioural disorders (25 per cent).

3.3.1 SOCIAL CLASS AND CHRONIC ILLNESS

There was strong evidence of a social gradient in the prevalence of chronic illness (Figure 3.4). Respondents in the two lowest social classes were significantly more likely to report chronic illness in the 13-year-old (17 per cent, 14 per cent) than those in the two highest social classes (10 per cent).



Figure 3.4: Social class and chronic illness of the 13-year-olds

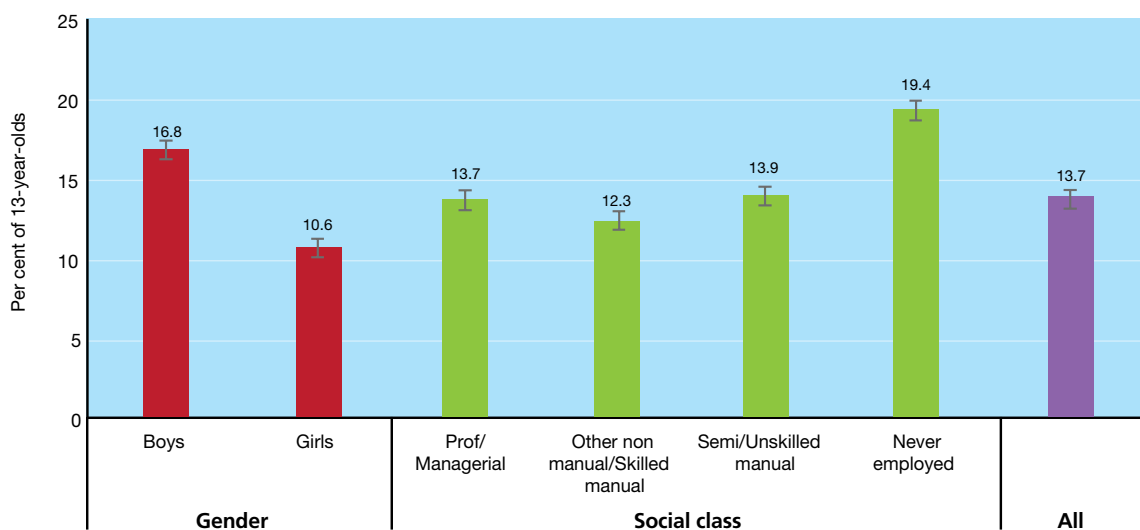


More than nine out of 10 of those reported as having a chronic illness at 13 had been diagnosed by a medical professional. The differences in this respect by social class were not statistically significant.

3.4 ACCIDENTS IN THE LAST YEAR

Primary Caregivers were also asked whether their 13-year-old had ever had an accident that required hospital treatment or admission. In total, 14 per cent of 13-year-olds had had an accident. Figure 3.5 shows that prevalence was significantly higher among boys than girls (17 per cent and 11 per cent, respectively), mirroring findings from the UK (Mason, Deacon, Perkins and Bellis, 2013). Those in the lowest social class group were also significantly more likely to have had an accident (19 per cent) than those in other social groups (12 to 14 per cent).

Figure 3.5: Prevalence of accidents requiring hospital treatment or admission in the last year, classified by (a) gender and (b) family social class

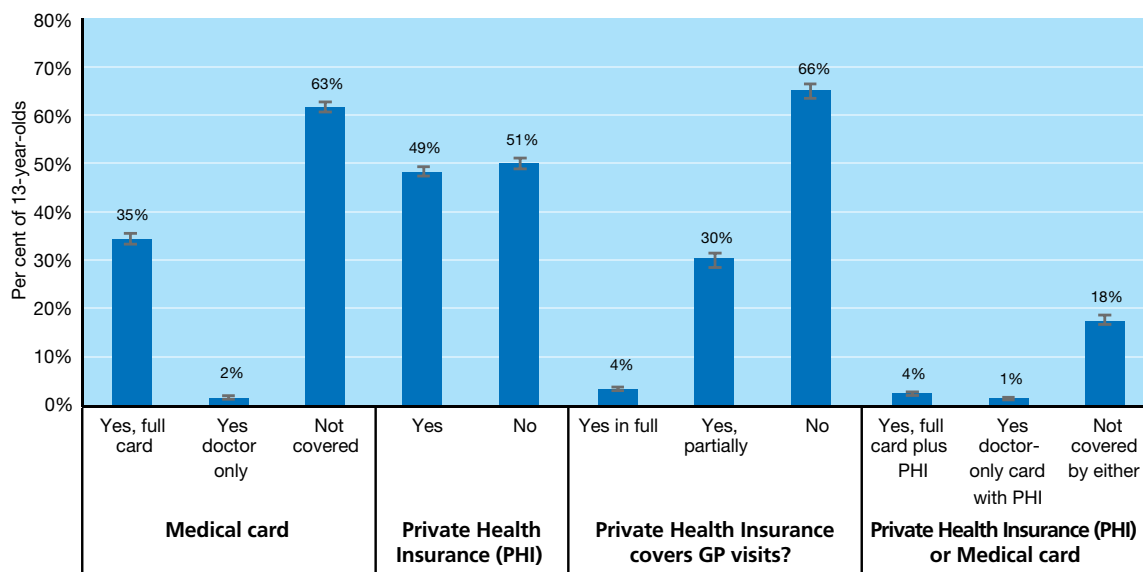


3.5 MEDICAL CARD COVER

In Ireland a full medical card entitles the holder to free GP services, free prescribed drugs and medicines, hospital services, dental, optical and aural services, maternity and infant care, community care and personal social services. Some of those not eligible for the 'full' medical card may be covered for GP care on a 'GP only' card. Qualification for a medical card depends on family income and the size of the family. In cases where income is derived entirely from social welfare payments, there is automatic qualification for a medical card. Social welfare payments and several payments from the Health Services Executive (such as foster-care allowance and mobility allowance) are not included when assessing income for medical-card purposes.

Previous research in this area highlighted the different rates of GP visits between medical-card holders and non-medical-card holders (Nolan and Nolan 2004; Nolan 2007; Nolan and Nolan 2008; Nolan and Smith 2012) and indicated that the price faced by users is a strong determinant of healthcare utilisation. Figure 3.6 shows the breakdown of medical coverage in the *Growing Up in Ireland* sample. The figure shows that 37 per cent were covered by a medical card ('full' or 'GP only'), and 50 per cent by private health insurance. On the other hand, 18 per cent of 13-year-olds do not have any form of medical coverage. Private health insurance (PHI) does not usually cover the cost of GP visits, with only two per cent of children covered by PHI having full cover and 15 per cent having partial cover. However, there is some overlap between cover by medical card and PHI.

Figure 3.6: Medical health cover for 13-year-olds in Growing Up in Ireland



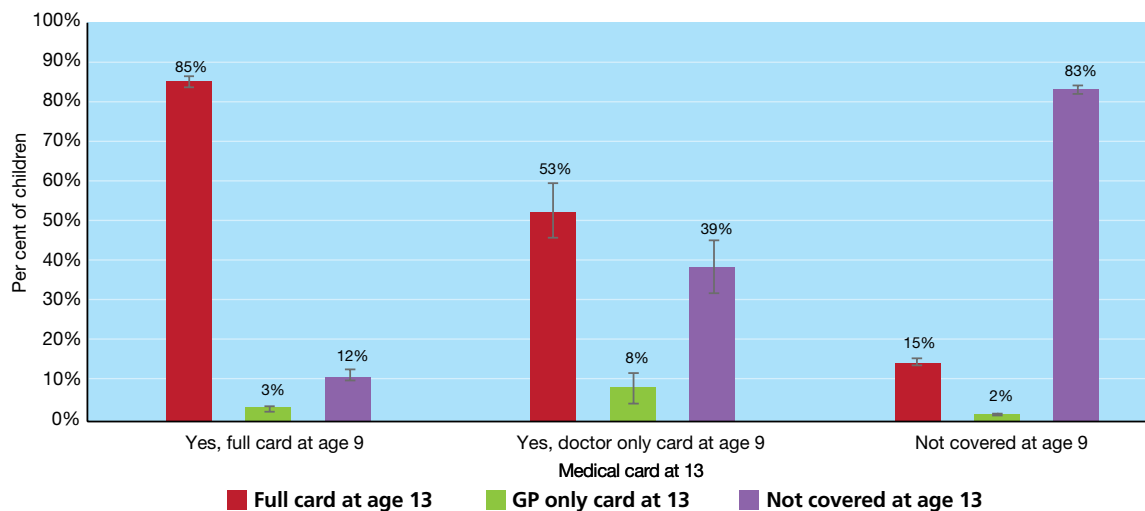
About five per cent of 13-year-olds had both PHI and medical card (four per cent had a full medical card and one per cent had a GP-only card). This might arise in cases where a medical card is granted for non-income reasons (such as to children in foster care or those with certain illnesses) or where someone outside a low-income household is contributing to health insurance cover.

Figure 3.7 shows changes in medical-card status between nine and 13 years of age for those who had a full medical card and those who had no medical card at age nine. At age nine, 27 per cent of families had a full medical card and a small percentage (2.7 per cent) had a GP-only card. Figure 3.7 shows that 85 per cent of young people who had full medical-card coverage at age nine were still fully covered at age 13; three per cent now had a GP-only card and 12 per cent were not covered at age 13. There was somewhat



more movement in the other direction, as a result of the falls in income during the recession. Of those who had no medical card at age nine, 15 per cent had a full medical card by age 13 and two per cent had a GP-only card, while 83 per cent still had no medical card. Only a small number of families had a GP-only card at age nine; thus, although the figures in the chart show the percentage of these with different types of cover at age 13, they should be treated with caution because of the wide margin of error, as shown by the error bars. Nevertheless, the figures suggest quite a bit of movement over the period. Substantial numbers either moved to a full medical card by age 13 or had no cover by age 13.

Figure 3.7: Changes in medical-card status between 9 and 13 years of age



It is likely that some of these changes were driven by the recession that occurred between the time the Study Child was age nine and the time s/he was age 13. As household incomes fell in cases of unemployment, the family would have become eligible for a medical card.

GP visits and medical-card coverage

Since price is a strong determinant of healthcare utilisation, the link between change in medical-card status and any related change in the number of GP visits in the previous year is clearly of interest from a policy perspective. At an aggregate level, the mean number of GP visits at age nine was 0.97, increasing slightly to 1.04 at 13. Considering the GUI sample as a whole, a change from having no medical-card coverage at age nine to either full or 'GP only' card at 13 led to a significant increase of 0.41 in the mean number of GP visits (compared to an increase of approximately 0.04 visits for those with no change to medical-card coverage). A decrease in coverage from full or 'GP only' medical card, to no medical card, led to a significant decrease of 0.27 in the number of GP visits from ages nine to 13 (compared to an increase of approximately 0.09 visits for those with no decrease in cover). These patterns suggest a change of roughly 0.36 to 0.37 in the number of visits at age 13 associated with a change in cover – a substantial difference, given that the average number of visits is 1.04. Checks using statistical models indicated that these changes in service usage linked to changes in eligibility are not accounted for by any change in parent's report of the 13-year-old's health status. Further checks with more sophisticated models controlling for child and family characteristics besides health would be needed in order to isolate the impact of the change in cover from the impact of other changes in the child's life in that period. Given the link between medical-card cover and the family's economic situation, a change in cover is likely to be associated with other important changes in the circumstances of the family. A more sophisticated analysis by Nolan and Layte (2017, using propensity score analysis, and including both *Growing Up in Ireland* cohorts) also found significant effects of changes in coverage on GP utilisation.

3.6 MATURATION

Puberty is a developmental milestone with wide-ranging effects, including in the biological, social and psychological domains. As physical appearance changes, young people need to negotiate the social norms and expectations that accompany their developing maturity. However, because most adolescents just want to 'fit in', timing of puberty can be important. Research has shown that deviation from the norm (whether early or late) can affect emotional and behavioural outcomes both during adolescence and early adulthood (Peterson and Taylor, 1980; Striegel-Moore et al., 2001; Blumstein, 2006). Early or late maturation affects boys and girls differently. In particular, girls who mature earlier than their peers are more likely to find pubertal adjustment challenging and they may also experience negative outcomes (e.g. Caspi and Moffitt, 1991; Ge, Conger and Elder, 1996), including risk of lower self-esteem (Striegel-Moore et al., 2001) and higher rates of depression (Copeland et al., 2010). They are more likely to be influenced by older peers and more deviant peers (Ge, Conger and Elder, 1996) and initiate intercourse, substance use and other norm-breaking behaviours at younger ages (Deardorff et al., 2005; Johansson and Ritzén, 2005). Fewer studies have focused on the timing of puberty in boys, but some findings indicate an association between early puberty and social disadvantage (Sun et al., 2017) and an increased risk of early use of cigarettes and alcohol among early-maturing boys (Westling et al., 2008). The findings on physical health are not always consistent, but some studies have found an increased risk of testicular cancer among early-maturing boys, and early puberty has been linked with breast cancer in girls (Golub et al., 2008; Walvoord, 2010).

In the UK, research examining factors associated with pubertal onset found that, for boys and girls, earlier pubertal onset was associated with poorer parental socio-economic status. Similar findings are reported for both boys and girls from Australia (Sun et al., 2017). However, other studies have investigated the relationship between social class and age at menarche (first onset of menstruation in girls) and the findings to date are inconsistent. Some have found that in lower social classes menarche is delayed by exposure to adverse environmental and nutritional factors during early childhood or even deficient nutrition during adolescence (Chavarro et al., 2004; Orden, Vericat and Apezteguia, 2011). Others have found that lower social class and parental education are associated with earlier onset of menarche (e.g. Romans et al., 2003; Schooling et al., 2008; Sun et al., 2017). In a study across 34 countries, Currie et al. (2012) found a significantly lower age at menarche among girls who were obese. There is some suggestion that menarche may occur earlier for girls in lower social classes because rates of obesity and overweight are higher for this group (Downing and Bellis, 2009; Hernandez et al., 2007).

The developmental importance of pubertal timing for boys is generally less well studied than for girls (e.g. Mendle and Ferrero, 2012). This has been attributed to the difficulties in measuring pubertal development in boys. While the gold standard would be a physical exam, this can be expensive and not usually feasible in studies such as *Growing Up in Ireland*. For girls, this issue is often overcome by using age at menarche. However, there is no analogous milestone in males. The marker of male puberty used here was voice change. This is clearly not a discrete event like menarche and so there were a number of different outcomes that boys could report. These included no change to the voice; voice was occasionally lower; the voice had changed completely, or unsure of voice change.

The data relating to puberty discussed in this chapter were collected at one time point, so discussion of 'late' and 'early' developers is somewhat incomplete since not all of the young people have reached the markers that were used here to measure puberty. Some of the findings are discussed below.

3.6.1 GIRLS AND MATURATION

The declining age of menarche since the 19th and early 20th centuries' (Lomenick et al., 2010; Walvoord, 2010) is drawing attention from the health scientific community, because changes in the age of menarche or early menarche are known to be a risk factor for disease, for example, obesity, metabolic syndrome,



cardiovascular disease, diabetes, breast cancer and even increases in the mortality rate from ischemic heart disease and stroke (Sloboda, Hickey and Hart, 2011; Golub et al., 2008; He et al., 2010; Karapanou et al., 2010; Jacobsen, Oda, Knutsen and Fraser, 2009).

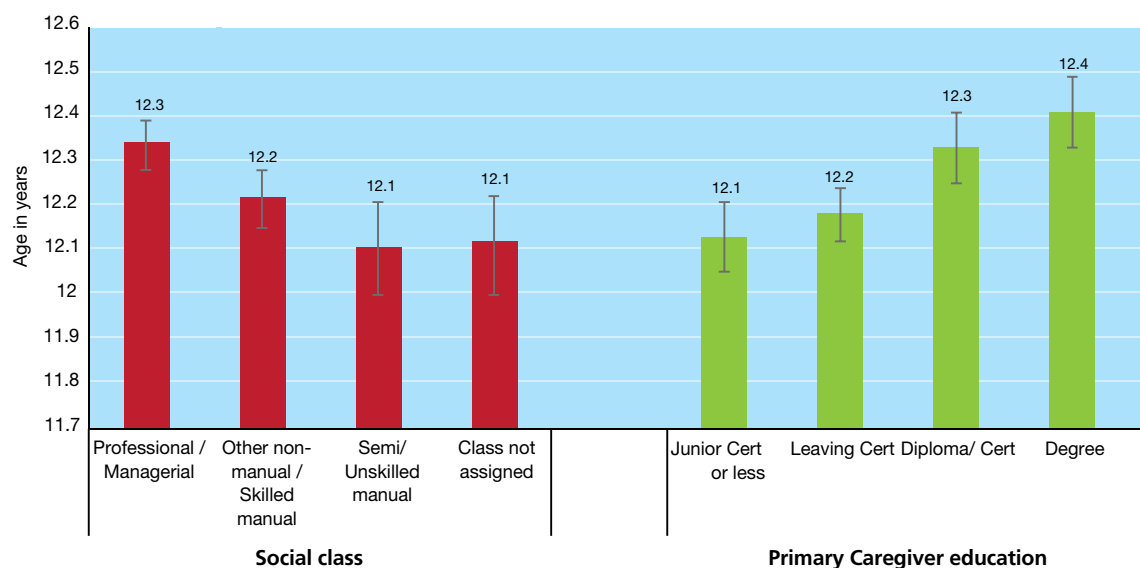
Data obtained on a nationally representative sample of Irish girls aged 10-18 years from the 2006 Irish Health Behaviour in School-Aged Children (HBSC, 2015) study revealed that the mean menarcheal age was 12.53 years (O'Connell et al., 2009), with a median of 13.0 years (Currie et al., 2012). This study showed no significant variation in age at menarche by geographic area, social class or immigrant background (O'Connell et al., 2009).

In *Growing Up in Ireland*, 73 per cent of girls had started their periods at the time of interview at age 13 and 27 per cent had not. The age range of menarche for girls in *Growing Up in Ireland* is 8.6 to 13.9, with a mean age of 12.23 years, although this is likely to be higher when data from future waves of the study become available on those who had not yet reached menarche at age 13.

3.6.1.1 Family circumstances and age at menarche

Findings from *Growing Up in Ireland* on socio-economic status and onset of menarche indicated that menarcheal age increased with social class. The biggest (and statistically significant) differential of 2.4 months related to those with parents in the professional/managerial class (12.3 years) compared to those in the lowest social class (12.1 years), as shown in Figure 3.8.

Figure 3.8: Social class, Primary Caregiver's education and age at menarche



The chart also illustrates that girls whose Primary Caregivers were better educated were more likely to start their periods on average 3.4 months later (12.4 years) than those whose Primary Caregiver was educated to lower secondary level or less (12.1 years). These results are statistically significant.

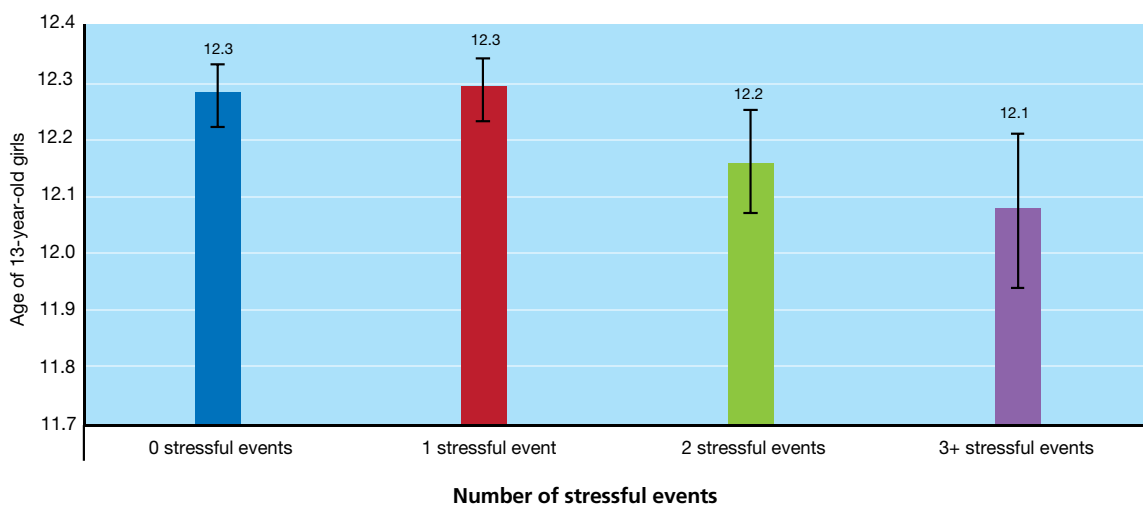
3.6.1.2 Life events and age of menarche

Stress has previously been highlighted as a social risk factor that may accelerate the onset of menarche (e.g. Goldman, Troisi and Rexrode, 2013). The Adverse Childhood Experiences (ACE) study in the United States was (and continues to be) a landmark study in the potentially serious effects of such events on physical and mental health in adulthood (e.g. Felitti et al., 1998); although the list of 'stressful life events'

used in *Growing Up in Ireland* covers a somewhat different range of events than the original ACE study. In *Growing Up in Ireland*, the Primary Caregiver was presented with a list of 14 life events and asked to record whether or not the 13-year-old had experienced each since the time of the interview when the Study Child was nine. Examples of stressful life events included: moving house, moving country, serious illness or injury, and death of a parent (see Chapter Eight for detail). These are referred to as ‘stressful’ rather than ‘adverse’ childhood events since some of them, such as moving home or country, may bring positive benefits. The accumulation of stressful life events is important. The literature indicates that outcomes deteriorate with the number of adverse events experienced (e.g. Mayer et al., 2009).

The number of stressful life events experienced by girls in *Growing Up in Ireland* was associated with menarcheal age. Figure 3.9 illustrates that the number of stressful life events was negatively linked to age of menarche in *Growing Up in Ireland* (12.1 years for three or more stressful life events compared to 12.3 years for those experiencing no stressful life events or just one such event).

Figure 3.9: Number of stressful life events and age at menarche



When social class was included in the analysis to account for the previously demonstrated link between social class and number of stressful life events, the association with age at menarche remained, suggesting that the impact of the events themselves may be contributing to this social class difference in menarcheal age. The difference between those experiencing three or more stressful life events and other 13-year-old girls is statistically significant, although the practical importance of this difference may be small because of the relatively modest effect (amounting to about 2.4 months) and because of the small size of the group experiencing three or more stressful life events (eight per cent of 13-year-olds; see Chapter Eight).

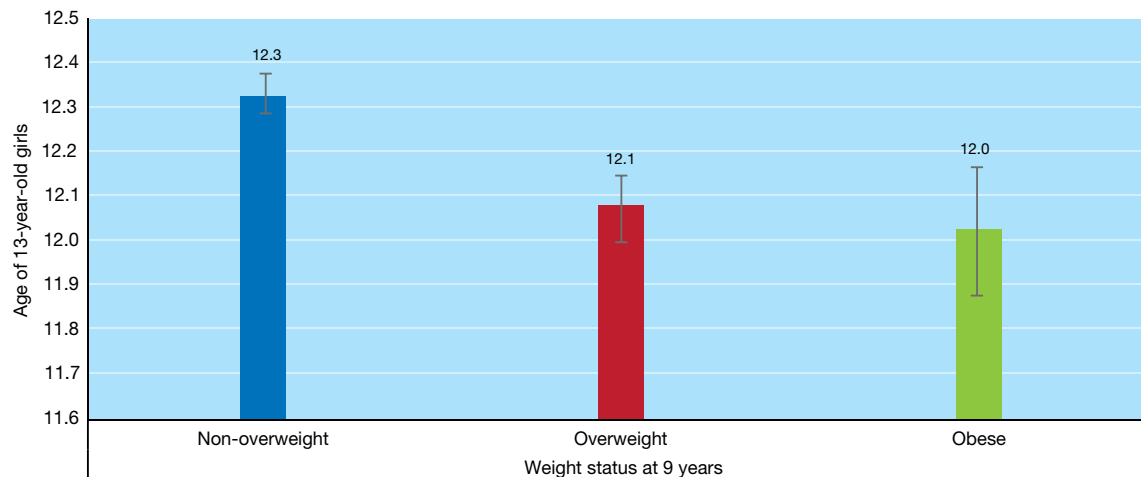
3.6.1.3 Weight status at 9 years and age at menarche

Since weight status has been highlighted in the literature as a possible influence on menarcheal age, the 13-year-old’s weight status at age nine was used to explore this relationship. Figure 3.10 shows that girls who were either overweight or obese at age nine were significantly more likely than those who were non-overweight to be younger at age of menarche. The average age of menarche was 12.0 years for those who were obese and 12.1 for those who were overweight at nine years, compared to 12.3 years for those who



were non-overweight, reflecting a statistically significant difference of 3.6 months between those who were obese and those who were non-overweight.

Figure 3.10: Weight status at 9 years and age at menarche



3.6.1.4 Age of menarche and emotional and psychological functioning

As noted above, the literature points to links between psychological functioning and menarche. In particular, onset of puberty that is different from the norm can affect emotional and behavioural outcomes (Peterson and Taylor, 1980; Striegel-Moore et al., 2001; Blumstein, 2006), with early-maturing girls having lower self-esteem (Striegel-Moore et al., 2001) and higher rates of depression (Copeland et al., 2010). A link between earlier onset of menarche and higher measures of asceticism, drive for thinness, impulse regulation and social insecurity was highlighted by Ackard and Peterson (2001). The data from *Growing Up in Ireland*, using scores from the SDQ, showed that age of menarche was significantly and negatively associated with emotional and behavioural functioning in girls. This held even when previous SDQ scores (at nine years) were accounted for. For example, a one-year increase in onset of menarche was associated with a 28 per cent drop in the odds of being 'at risk' of socio-emotional and behavioural problems.

Body-image is one of several aspects of self-concept that is measured by the Piers-Harris self-concept scale used in *Growing Up in Ireland* (Piers and Herzberg, 2007). When scores on this body-image subscale are compared against onset of menarche, girls who had started at the time of interview tended to have a less positive body image than those who had not: 30 per cent of the yet-to-start group had a below-average body image compared to 35 per cent of those who had started their periods. However, among the group who had already started menstruating, variation in age at menarche was not significantly associated with poorer scores on the measure of body-image.

3.6.2 BOYS AND MATURATION

As noted above, there have been fewer studies on the timing of puberty for boys (e.g. Mendle and Ferrero, 2012), in part because of the difficulties in measuring their pubertal development. There have been some findings of an association between early puberty in boys and social disadvantage (Sun et al., 2017); an increased risk of early use of cigarettes and alcohol among early-maturing boys (Westling et al., 2008), and some studies linking an increased risk of testicular cancer with early maturation among boys (Golub et al., 2008; Walvoord, 2010).

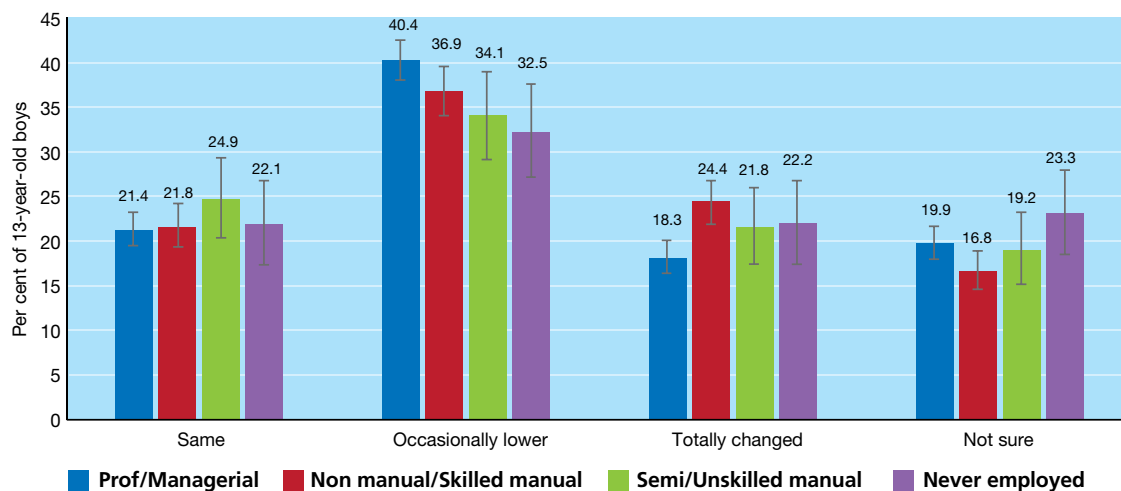
Voice change is one indicator of the timing of puberty in boys (Harries et al., 1997). Because voice change in boys at the time of puberty is not a discrete event, boys were asked to record whether their voice was *the same*, *occasionally a lot lower*, *totally changed*, or *not sure*. As in the previous section on girls, variations were explored between different groups of boys to identify possible links with other factors, such as social class and emotional and behavioural outcomes. Further, following trends identified in international literature, consideration is given to any evidence which might suggest that puberty is a more positive event for boys than girls.

The majority of boys reported being in the transitional stage where their voice was occasionally lower (38 per cent), although more than one-fifth reported that their voice had totally changed (23 per cent), while another fifth (21 per cent) reported that it had not changed at all. Just under one-fifth of boys were not sure whether their voice had changed or not (19 per cent).

3.6.2.1 Socio-demographic background and voice change

As with girls, the link between social class and maturation for boys was considered. Figure 3.11 indicates that, for all social groups, the majority of boys reported that their voice was now occasionally lower. However, the differences by social class are not large and are of borderline statistical significance. The error bars, representing the margins of error around the figures, tend to overlap across the social classes.

Figure 3.11: Self-reported change in voice among 13-year-old boys by family social class

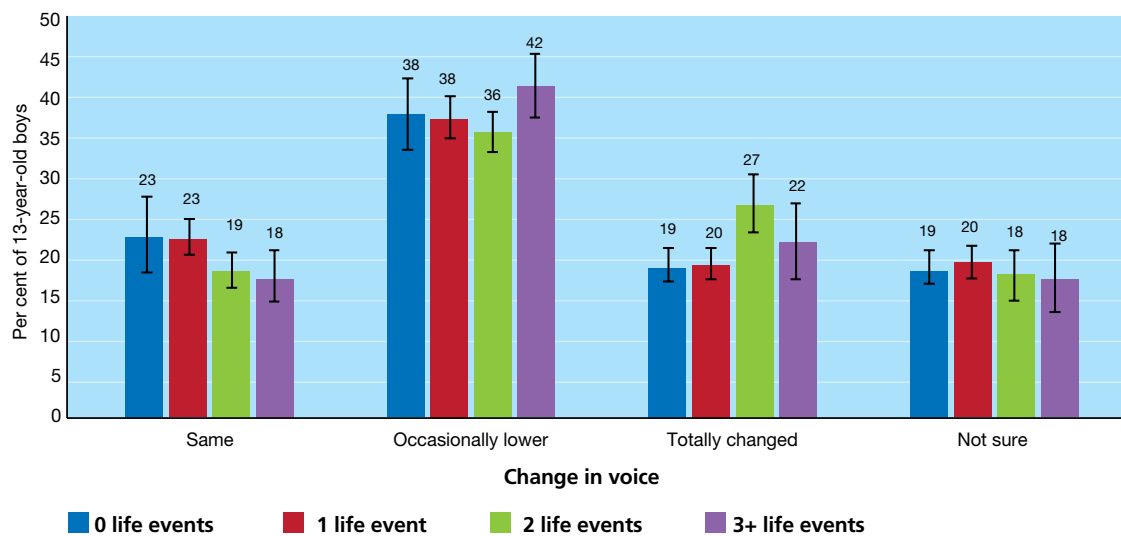


3.6.2.2 Stressful life events and voice change

Figure 3.12 shows voice change by the number of stressful life events experienced by boys. There is an association, with a tendency for boys who had experienced more a higher number of stressful life events to have experienced voice change by age 13. However, the pattern is not as clearly defined as it was for girls. The error bars often overlap, because the differences are modest and the number of cases experiencing higher numbers of events tends to be low.



Figure 3.12: Number of stressful life events and voice change



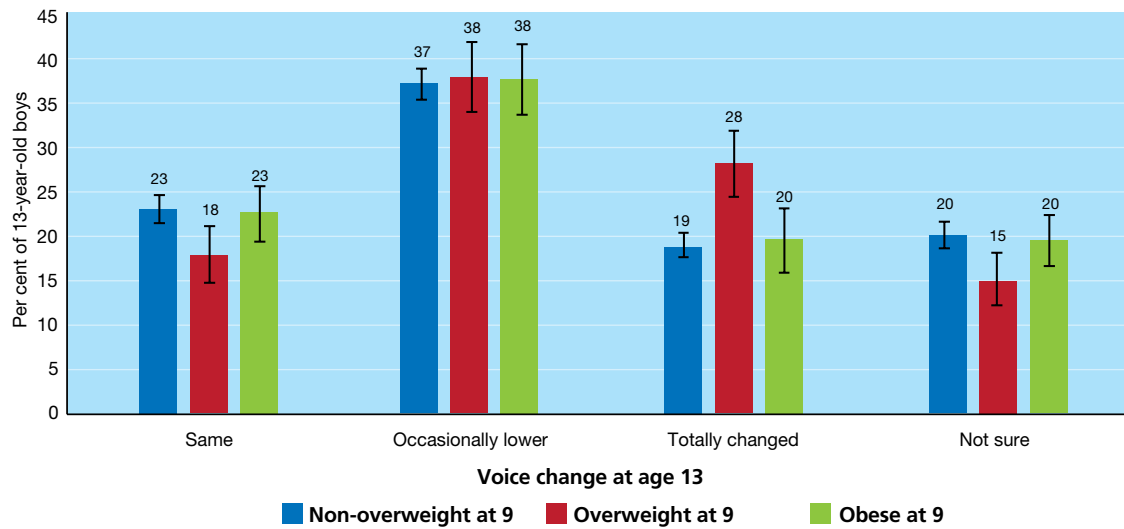
By combining the categories, enough cases are obtained to establish the significance of the broad patterns. For instance, those experiencing two or more stressful life events were significantly less likely to report that their voice was *the same* (18 per cent, significantly lower than the figure of 23 per cent among those experiencing either no stressful life event or just one such event). Similarly, the percentage reporting that their voice had *totally changed* was significantly higher among those experiencing two or more stressful events than among those experiencing none or just one (25 and 19 per cent, respectively).

Since the number of stressful life events tends to correlate highly with social class, a further analysis (not shown here) was carried out; it established that social class did not account for the significant association between number of stressful life events and voice having totally changed.

Weight status at 9 and voice change

Boys' weight status at nine years was examined in relation to voice change at 13, as shown in Figure 3.13. Again, there was some evidence of a relationship but it was only statistically significant for the boys having reported that their voice had *totally changed*. Boys who were *overweight* at nine years of age were more likely to report complete voice change (28 per cent), compared to 20 per cent of those who were *obese* and 19 per cent who were *non-overweight* at age nine. This trend holds even when social class is accounted for. Again, the differences were not as clearcut as they were for girls, which accords with some of the previous research in this area (e.g. Semiz et al., 2009).

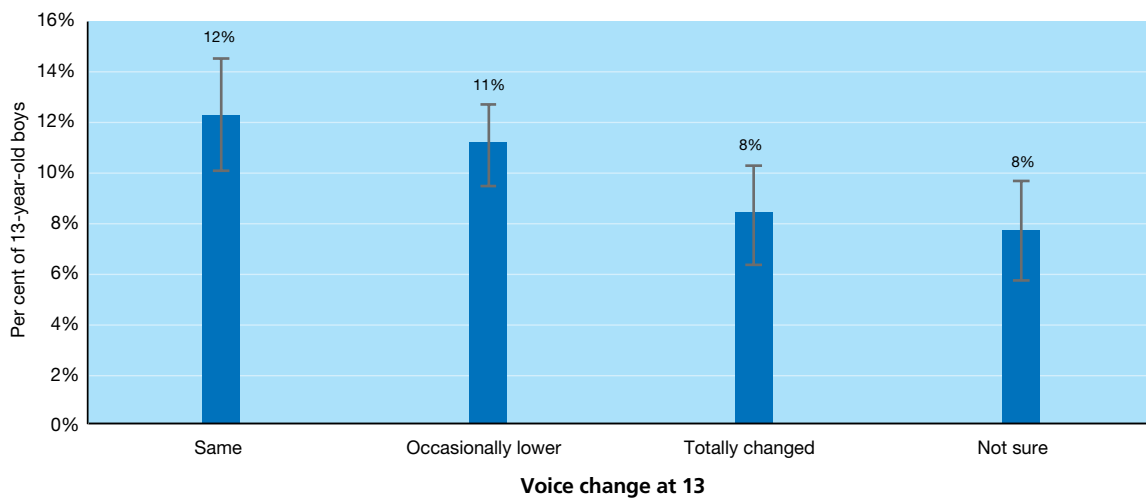
Figure 3.13: Weight status at 9 years and voice change at 13



3.6.2.3 Maturation and emotional and behavioural outcomes for boys

Turning to psychological outcomes and maturation, Figure 3.14 shows the association between being in the ‘at risk’ group for socio-emotional and behavioural (SEB) problems, using the SDQ measure, and voice change. The error bars in the chart indicate that the differences by the stage of voice change are not statistically significant. There is no evidence here that boys whose voice had changed, either occasionally or totally, were more likely to be at risk of experiencing emotional or behavioural difficulties than those whose voice had not changed at all. This is different from the situation observed for girls, where an earlier onset of menarche was associated with a higher risk of SEB difficulties.

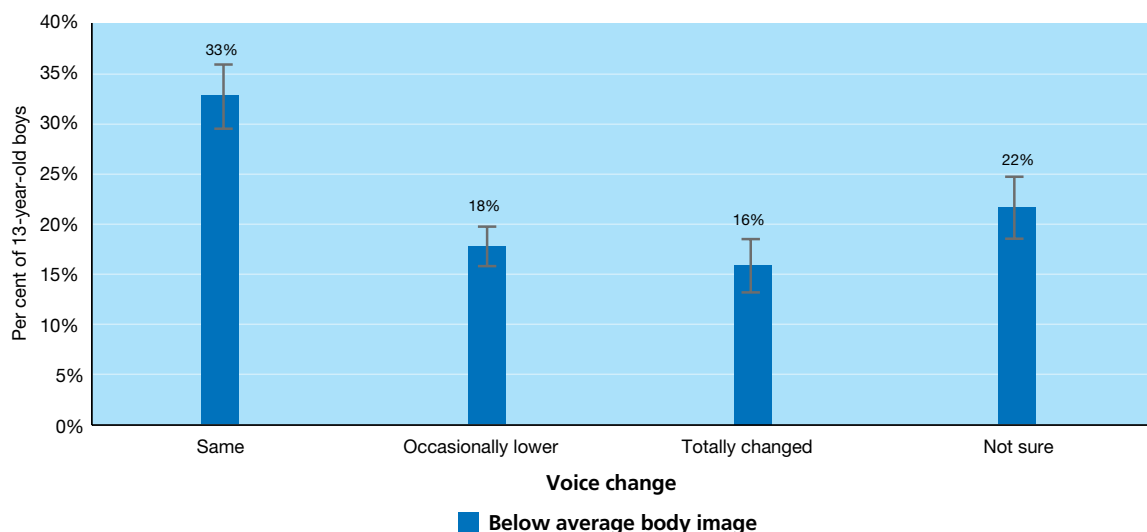
Figure 3.14: Voice change and risk of socio-emotional and behavioural problems (SDQ) in boys





While girls who had started their periods by the time of interview at age 13 tended to have a worse than average body image than those who had not, for boys the reverse appeared to be true. Figure 3.15 illustrates that below-average body image was much more common among those whose voice had not changed at all (33 per cent) compared to 16 per cent of boys whose voice had totally changed and 18 per cent of boys whose voice was occasionally lower (Figure 3.15).

Figure 3.15: Body image among 13-year-old boys, classified by voice change in boys



In addition to measurement challenges, there is the possibility that the social meaning of puberty has changed over time for boys (Ge et al., 2001). More recent perspectives suggest that the relations of pubertal timing with psychological well-being may be more complex than initial findings have indicated. In particular, early maturation is not necessarily advantageous for boys (Ge et al., 2001; Huddleston and Ge, 2003), while some studies have implicated both early and late development as problematic for adjustment (Alsaker, 1992; Williams and Dunlop, 1999). Future research on *Growing Up in Ireland* data can explore this further. While reasonably complete information is expected to be obtained for girls with respect to the onset of menarche, information on the timing of voice change in boys is likely to be more difficult to obtain retrospectively.

3.7 SUMMARY

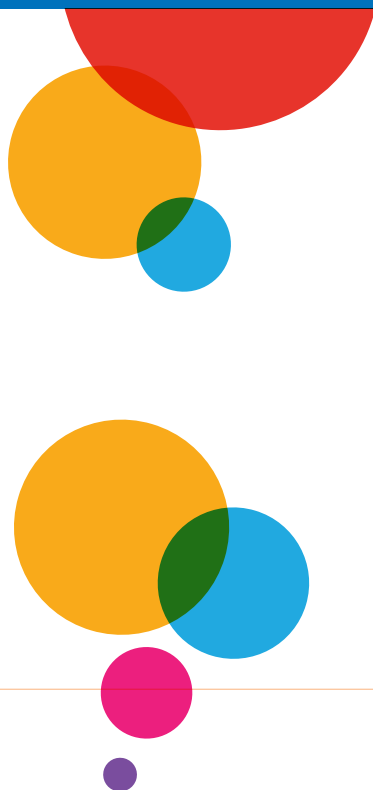
This chapter focused on the physical health and maturation of the 13-year-olds. Among the most important findings were the following:

- Most 13-years-olds were reported by their parents to be either very healthy with no problems (76 per cent) or healthy, but with a few minor problems (23 per cent). Only two per cent were reported to be sometimes ill or almost always unwell. These figures were similar to the distribution at age nine. However, there was considerable change at the individual level. An encouraging finding was that, of the small group that had been sometimes ill or almost always unwell at nine years old, most had improved by age 13.
- Boys were more likely than girls to have had an accident in the previous year that required hospital treatment or admission (17 per cent compared to 11 per cent). The risk of accidents was also higher in the lowest social class (19 per cent).
- At 13 years old, over one-third of young people were covered by a medical card and nearly half were covered by private health insurance, with a small number (five per cent) having both. Just under one-fifth had no healthcare cover.
- Seventy-three per cent of the girls had started their periods by the time they were 13 years old, with an average age of first period of 12.23 years for this group. The age at first period tended to be lower for girls from more disadvantaged backgrounds, those who had experienced three or more stressful life events since age nine, and for those who had been overweight or obese at age nine. An earlier start age at menarche was associated with an increased risk of socio-emotional and behavioural problems.
- Among boys, voice change was taken as an indicator of puberty. Nearly two in five boys reported that their voice was occasionally lower by age 13, with just over a fifth reporting no voice change, a similar proportion reporting that their voice had changed completely and about the same proportion being unsure. Voice change in boys had a weaker relationship with stressful life events, weight status at age nine and emotional and behavioural outcomes. There was evidence that boys whose voice had changed by the time of the interview at age 13 had a more positive body image than those whose voice had not changed.



Chapter 4

WEIGHT STATUS AND ACTIVITIES



4.1 WEIGHT STATUS (BODY MASS INDEX, BMI)

Childhood obesity is one of the most serious public health challenges of the 21st century. The problem is a global one and is increasingly affecting many low- and middle-income countries. The World Health Organisation (WHO, 2016, p.8) describes the prevalence of obesity as “reaching alarming proportions in many countries”, with an estimated 41 million children under the age of five believed to be overweight or obese in 2014. Previous findings from *Growing Up in Ireland* also highlight the issue. For example, of the Infant Cohort, 25 per cent were overweight or obese at three years old, 20 per cent at five years old, and 26 per cent of the Child Cohort were overweight or obese at age nine years.

Adverse health consequences associated with overweight include increased risk for non-insulin-dependent diabetes (type two), cardiovascular risk, respiratory disorders and a wide spectrum of other chronic diseases (e.g. Sabin et al., 2004). Longitudinal studies have shown that obese children have a higher risk of becoming obese adults (Gunnell et al., 1998). The adverse effects of overweight are not confined to the health domain. Numerous studies show that children who are overweight have more problematic relationships with peers (Boneberger et al., 2009), lower self-esteem, and lower educational attainment (Gortmaker et al., 1993). Research also shows that the development of eating disorders peaks during adolescence. Figures from the HBSC study show that 39 per cent of 13-year-old girls and 23 per cent of 13-year-old boys across 35 countries were dissatisfied with their body weight (Mulvihill et al., 2004). Again, this is important from a developmental perspective because youth who are dissatisfied with their body shape tend to score lower on measures of self-esteem and self-concept, and are more likely to engage in unhealthy weight-control practices, with longitudinal studies indicating a progression from less to more severe disturbances (Polivy and Herman, 2002).

Previous research, including *Growing Up in Ireland*, has also highlighted anomalies in parents’ perceptions of their child’s weight. Parents of overweight or obese children tend to underestimate their child’s weight (Layte and McCrory, 2011). One European study covering eight countries found that 63 per cent of parents whose children were overweight or obese classified them as the ‘proper weight’, although these perceptions differed by region (Regber et al., 2012).

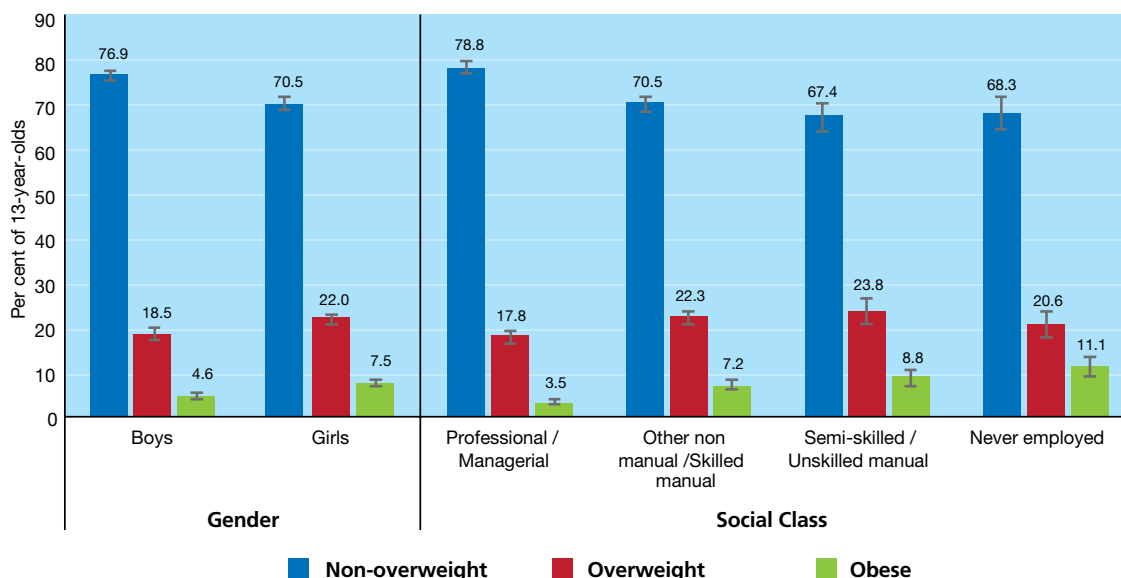
The height and weight measurements taken by the interviewer in *Growing Up in Ireland* were used to calculate the 13-year-old’s BMI. A BMI of 25 kg/m² for overweight and 30 kg/m² for obesity are the adult cut-off points in widest use, and it is these cut-offs which have been linked to BMI centiles for children to provide cut-off points for children (Dietz and Robinson, 1998; Bellizzi and Dietz, 1999). The cut-off points here refer to non-overweight (which also incorporates underweight in young people), *overweight* and *obesity*. For a full description of the development of age- and sex-specific cut-off points for BMI for overweight and obesity in children, see Cole et al. (2000).

4.1.1 WEIGHT STATUS AT 13 YEARS

Overall, 74 per cent of 13-year-olds in *Growing Up in Ireland* were non-overweight, 20 per cent were overweight, and six per cent were obese – figures that are very close to those at age nine. As was the case at nine years, more than one in four 13-year-olds had a BMI beyond the range considered healthy for this age group.

Figure 4.1 shows that boys were significantly more likely to be non-overweight than girls (77 compared to 71 per cent), while girls were significantly more likely to be overweight or obese than boys (*overweight*: 22 compared to 19 per cent; *obese*: eight compared to five per cent). Figure 4.1 also highlights a social gradient in weight status. Those in the highest social class were more likely to be *non-overweight* (79 per cent) and considerably less likely to be *overweight* or *obese* than the other social classes.

Figure 4.1: Weight status at 13 years of age, classified by (a) gender and (b) family social class



4.1.2 CHANGE IN WEIGHT STATUS SINCE 9 YEARS

Figure 4.2 shows the extent to which weight status at nine years is predictive of weight status at 13 years. Those who were *non-overweight* at nine years were highly likely to remain so at 13 (89 per cent), with 10 per cent becoming *overweight*, and only a small minority (one per cent) becoming *obese*. Fifty-four per cent of those who were *overweight* at age nine remained *overweight* at 13, although a sizeable proportion of this group had moved into the non-overweight group (35 per cent). However, 11 per cent of this group were *obese* at 13 years. Fifty per cent of *obese* nine-year-olds were still obese at 13 years, although 41 per cent had moved into the *overweight* group, and nine per cent into the *non-overweight* group.

Figure 4.2: Weight status at age 13 by weight status at age 9

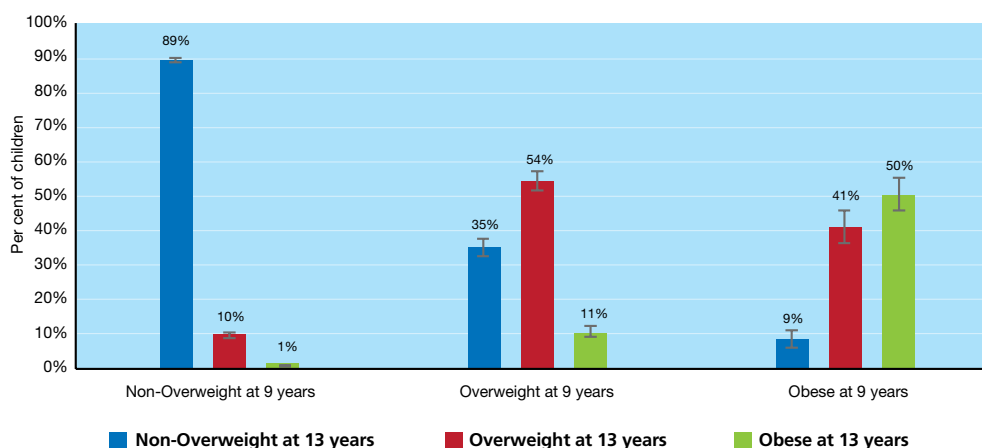
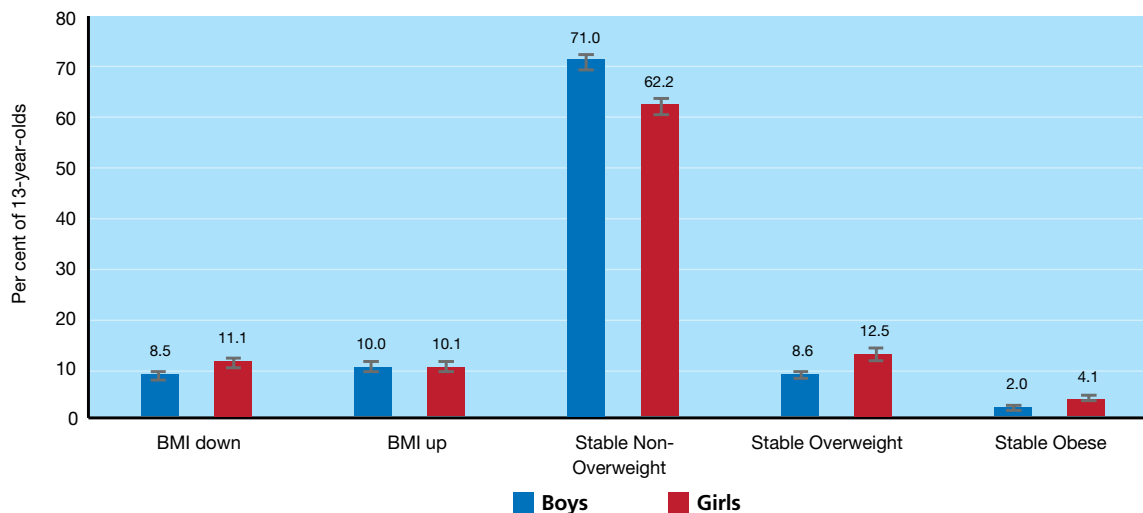


Figure 4.3 illustrates the changes in weight status by the 13-year-old’s gender. Most children remained in the same status as at age nine: either stable non-overweight (71 per cent of boys and 62 per cent of girls), stable overweight (nine per cent of boys and 13 per cent of girls) or stable obese (two per cent of boys and four per cent of girls). Boys and girls were about equally likely to experience an increase in BMI sufficient to move them into a different weight category (10 per cent) but girls who were more likely to be in the higher categories at age nine were more likely than boys to move down (11 per cent compared to nine per cent).

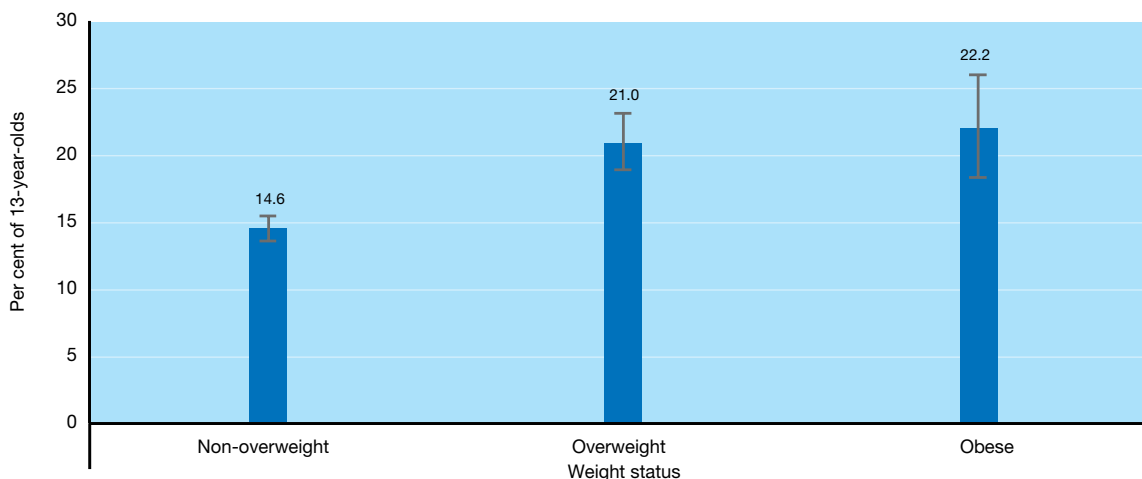
Figure 4.3: Change in weight status of males and females between 9 and 13 years of age



4.1.3 WEIGHT STATUS AND PHYSICAL HEALTH

Obesity has been increasingly linked to various physical ailments, although the reasons are as yet unclear. Because of particularly high prevalence rates of asthma in Ireland, parents were specifically asked whether or not the 13-year-old had any experience of ‘wheezing or whistling on their chest in the past year’. A total of 16 per cent of parents answered affirmatively. Figure 4.4 shows the breakdown of young people with chest problems by weight status. It indicates that *overweight* or *obese* 13-year-olds were significantly more likely to have chest problems (21 and 22 per cent respectively) than *non-overweight* 13-year-olds (15 per cent).

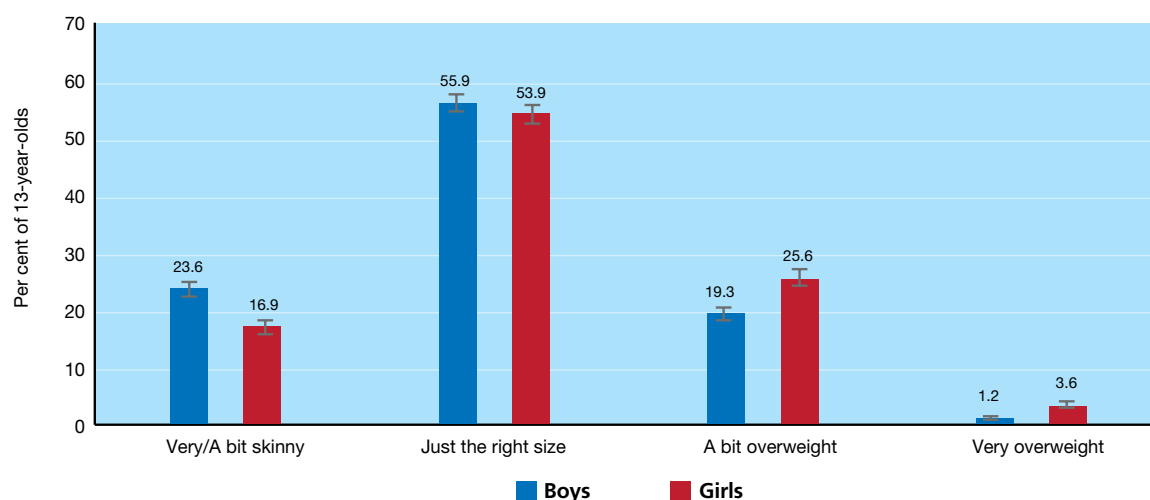
Figure 4.4: Weight status at 13 and occurrence of wheezing or whistling on chest in past year



4.1.4 WEIGHT STATUS, PERCEPTION OF WEIGHT AND BODY IMAGE

In the course of their interview, 13-year-olds were also asked how they perceived their own weight. Answer categories ranged from *very skinny* to *very overweight*. While most 13-year-olds thought they were just the right size (55 per cent), a significant minority did not: three per cent perceived themselves as *very skinny* and 17 per cent as *a bit skinny*, while 22 per cent thought they were *a bit overweight*, and two per cent *very overweight*. Breaking this down by gender, Figure 4.5 shows that girls were significantly more likely to think that they were either *a bit* or *very overweight* (29 per cent) compared to boys (20 per cent).

Figure 4.5: Perception of weight according to gender

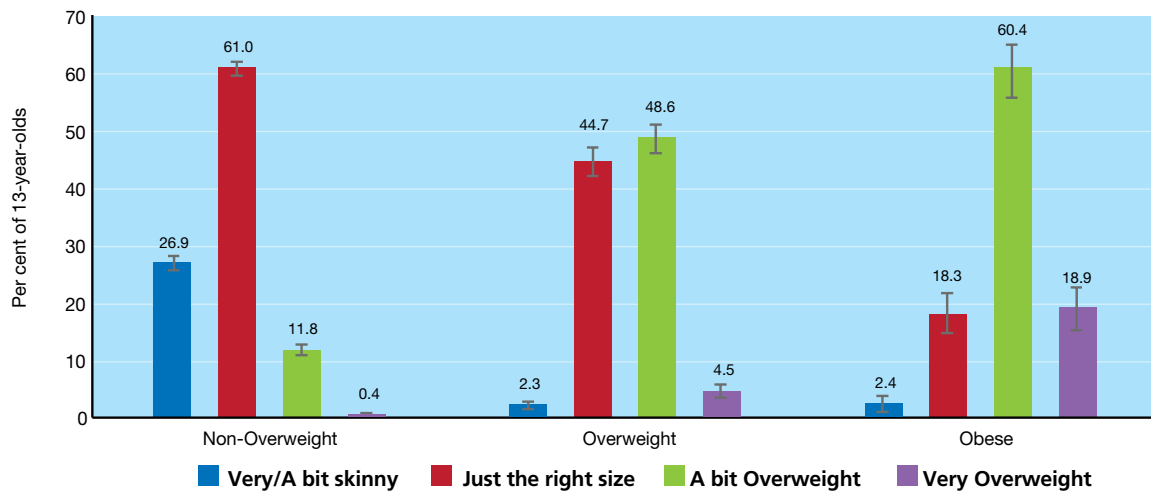


On the other hand, boys were much more likely to see themselves as being *very/a bit skinny* (24 per cent) compared to girls (17 per cent), similar to findings from previous literature (e.g. Demarest and Allen, 2000; Stanford and McCabe, 2005). However, similar proportions of boys and girls viewed themselves as *just the right size* (56 per cent of boys and 54 per cent of girls).

It was also important to explore the link between *actual* weight status and *perception* of weight on the part of the 13-year-old. Figure 4.6 shows that only 19 per cent of 13-year-olds who were *obese* described themselves as *very overweight*, with 60 per cent misperceiving themselves as being *a bit overweight*, 18 per cent as *just the right size*, and two per cent as *skinny*. A total of 45 per cent of overweight 13-year-olds described themselves as *just the right weight* and another two per cent saw themselves as *skinny*, while 49 per cent thought they were *a bit overweight*, and five per cent thought they were *very overweight*. The current findings indicate that, the heavier the 13-year-old was, the more likely they were to misperceive their weight. Thirteen-year-olds who were non-overweight were most likely to see themselves as *just the right size* (61 per cent) or *very/a bit skinny*¹⁸ (27 per cent), but 12 per cent thought they were overweight to some extent. The discordance between perceived and actual weight status on the part of 13-year-olds is of particular importance in terms of policies aimed at changing their health-related behaviours.

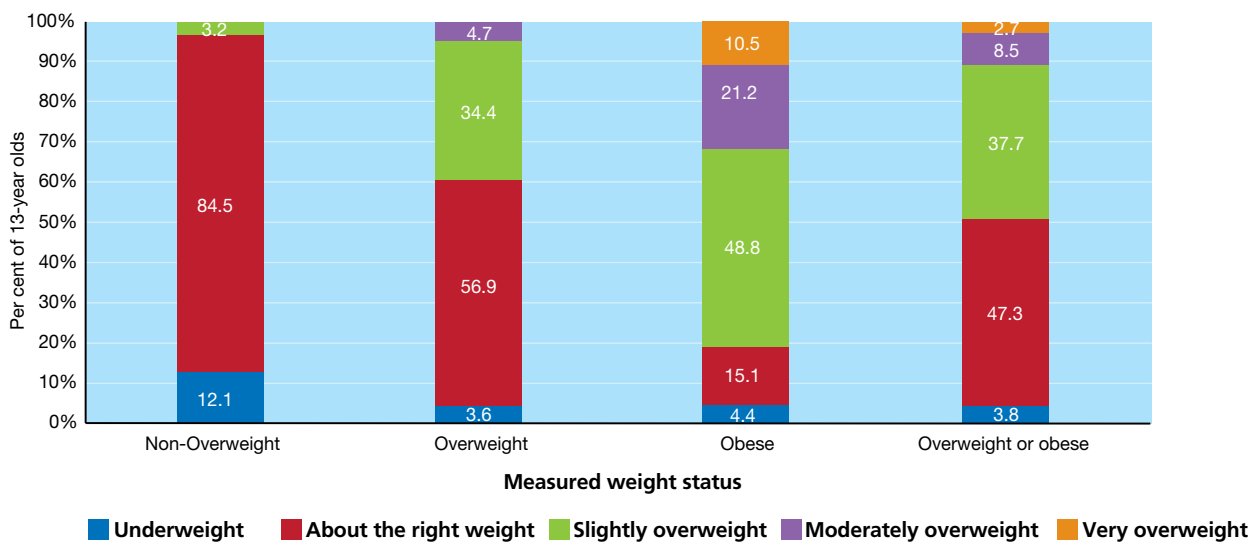
¹⁸ Non-overweight includes underweight and normal weight, so this might not in fact be a misperception of weight status.

Figure 4.6: Perceptions of 13-year-olds of their weight status by their actual weight status



Differences in perception of the 13-year-old’s weight status among parents was also noted, as shown in Figure 4.7. For example, only 11 per cent of parents/guardians of obese 13-year-olds in *Growing Up in Ireland* described them as *very overweight*. A further 21 per cent described them as *moderately overweight*, 49 per cent as *slightly overweight*, and 15 per cent as *about the right weight*, while four per cent described them as *underweight*. This compared to 86 per cent of parents of non-overweight 13-year-olds who described their son or daughter as *about the right weight*. In total, as the final column in Figure 4.7 shows, about half (51 per cent) of parents whose child was either overweight or obese thought *s/he was about the right weight* (47 per cent) or *underweight* (four per cent).

Figure 4.7: Parents’ perception of 13-year-olds’ weight status, classified by the 13-year-old’s measured weight status

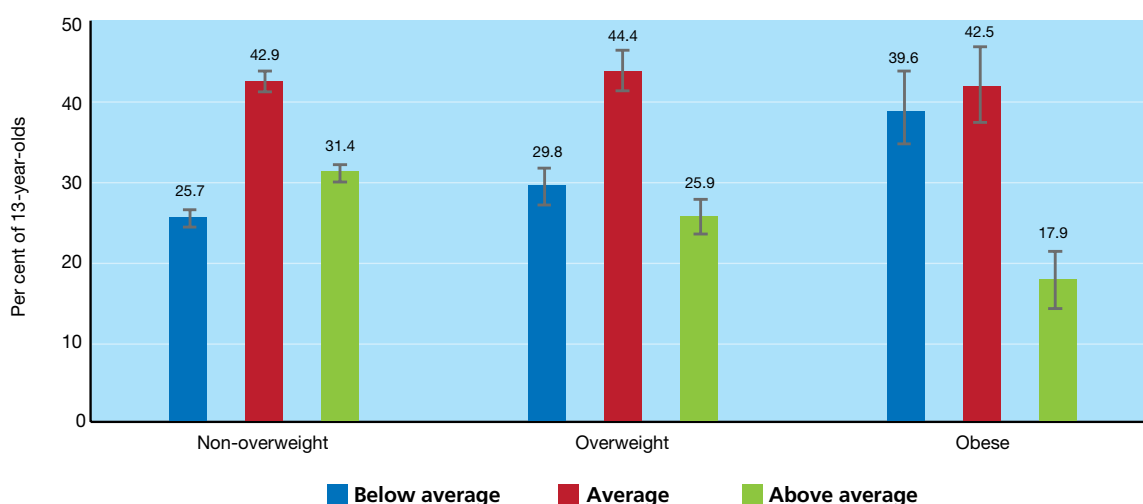


Another measure of body-image was based on the physical appearance and attributes subscale of the Piers-Harris II self-concept measure. According to the authors (Piers and Herzberg, 2007), a rating *above average* is an expression of general satisfaction in this domain. An average rating would indicate both positive and negative evaluations, with the positive tending to outnumber the negative. Those in the *below average* range are likely to have poor self-esteem with regard to their body image and physical attributes.

While the majority of 13-year-olds in *Growing Up in Ireland* rated themselves as average in terms of their physical attributes (43 per cent), almost 30 per cent rated themselves as above average, and 27 per cent as *below average*.¹⁹

Figure 4.8 shows that non-overweight 13-year-olds were least likely to have a *below average* body-image (26 per cent), while obese 13-year-olds were most likely to have a below average body-image (40 per cent). The latter group was also least likely to perceive themselves as being *above average* physically (18 per cent) compared to 13-year-olds in the overweight category (26 per cent), or the non-overweight category (32 per cent), who were most likely to describe themselves as *above average* physically, using the Piers-Harris scale.

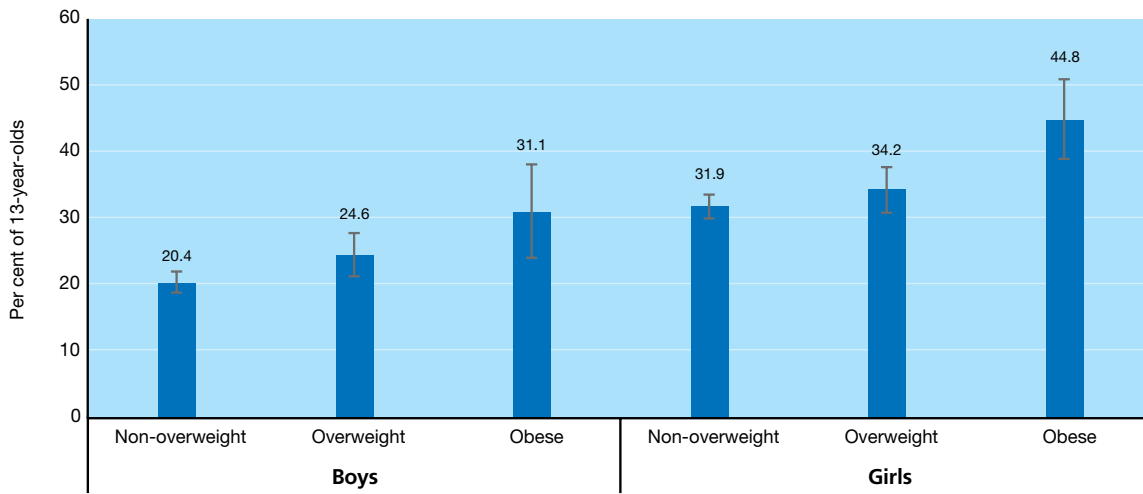
Figure 4.8: Physical self-concept using the Piers-Harris subscale classified by BMI



When gender was accounted for in this analysis, differences emerged in terms of physical self-concept, as shown in Figure 4.9. For example, a fifth (20 per cent) of *non-overweight* boys described themselves as *below average* physically, compared to almost a third (32 per cent) of *non-overweight* girls. Furthermore, while 31 per cent of obese boys had below-average physical self-concept, this rose to 45 per cent for obese girls.

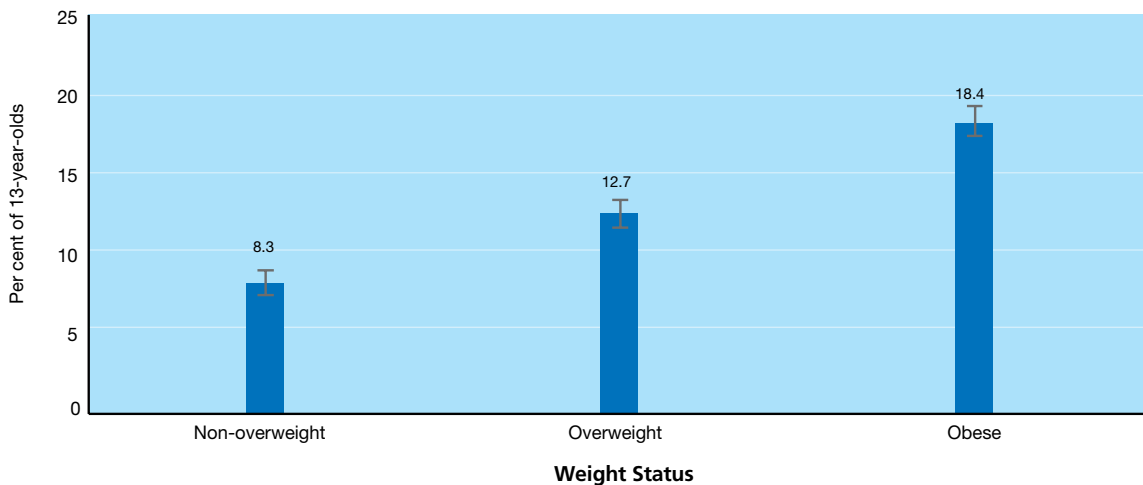
¹⁹ Based on the thresholds and adopting the terminology used by the authors of the Piers-Harris scale.

Figure 4.9: Physical self-concept (per cent below average) classified by gender and BMI



There was also an association between obesity and psychological functioning in 13-year-olds. Figure 4.10 shows the percentage of 13-year-olds who were in the ‘at risk’ category of the SDQ Total Difficulties scale according to weight status. Those who were overweight were significantly more likely to be at risk of socio-emotional and behavioural problems than those who were non-overweight (13 per cent compared to eight per cent), while the risk was still higher for those who are obese (18 per cent). It should be noted, however, that there are likely to be other confounding factors (including social disadvantage), and that direction of causality cannot be assumed. While increased weight status may cause some emotional distress to the 13-year-old, it may also be the case that emotional distress and problems with peers could disrupt healthy eating patterns.

Figure 4.10: Percentage of 13-year-olds ‘at risk’ of socio-emotional problems, by weight status



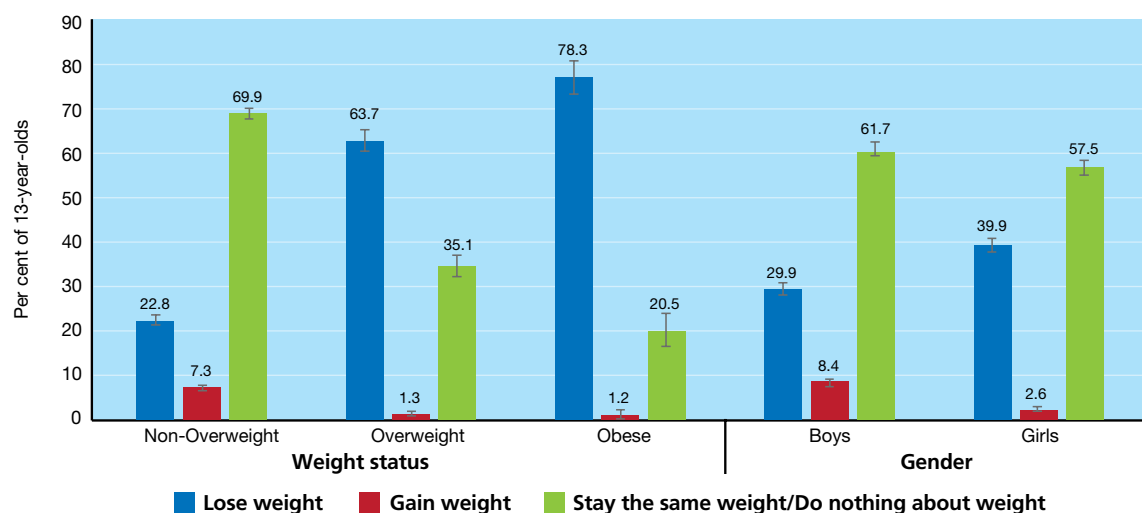
4.2 WEIGHT STATUS AND DIETING

Unhealthy dieting and disordered eating behaviours among 13-year-olds are of particular concern because they can affect nutrient intake, mental health status and long-term health outcomes (Neumark-Sztainer, 2000). Dieting and disordered eating behaviours may also be a risk factor for the later development of serious eating disorders. For this reason, it is important to explore the issue in the context of teenage weight status as well as current body perception, in an attempt to identify those individuals who may already be engaged in risky dieting behaviours as well as those who may be likely to develop more serious problems with their eating in the future.

4.2.1 WEIGHT STATUS, GENDER AND WEIGHT MONITORING BEHAVIOURS

In *Growing Up in Ireland*, 13-year-olds were asked if they were trying to do anything about their weight, and, specifically, whether they were trying to *lose weight*, *gain weight*, *stay the same weight*, or *do nothing about their weight*. The majority reported that they were either *trying to remain at the same weight* or were *not doing anything about their weight* (59 per cent), while 35 per cent were trying to *lose weight* and six per cent were trying to *gain weight*. Figure 4.11 shows that being overweight or obese was closely linked to trying to *lose weight* (64 per cent and 78 per cent respectively), whereas less than a quarter (23 per cent) of those in the non-overweight group was trying to *lose weight*. The graph also shows that significantly more girls (40 per cent) than boys (30 per cent) were trying to *lose weight*, and significantly more boys (eight per cent) than girls (three per cent) were trying to *gain weight*.

Figure 4.11: Weight control behaviours classified by weight status and gender



4.2.2 DIETING BEHAVIOURS

Specific dieting behaviours included in *Growing Up in Ireland* were: *exercising to lose weight or avoid gaining weight*; *eating less food, fewer calories, or lower fat foods*; and *weighing oneself*.

Overall, almost half of the *Growing Up in Ireland* 13-year-olds reported ever exercising in order to lose weight or avoid gaining weight (48 per cent). Girls were slightly more likely to exercise for this reason than boys (48 per cent compared to 44 per cent). Meanwhile, a third (33 per cent) of 13-year-olds had ever eaten less food, fewer calories or foods low in fat in order to lose weight or avoid gaining weight. Girls were much more likely than boys (36 per cent compared to 27 per cent) to report this type of dieting behaviour.

The majority of 13-year-olds reported that they *never* weighed themselves or did so *less than once a month* (68 per cent), while 18 per cent reported doing so *once a month*. A sizeable minority (11 per cent) reported weighing themselves *once a week*, while only a small number said they weighed themselves *every day* (two per cent), or *more than once a day* (one per cent). There did not appear to be any differences of note between girls and boys in terms of weighing behaviours.

To explore this issue further, 13-year-olds were classified in terms of the number of dieting behaviours in which they were involved – none, one or two. For example, ‘one dieting behaviour’ referred to those who exercised *or* ate less to control their weight, while ‘two dieting behaviours’ included those who exercised *and* ate less to control their weight. Those who used neither of these methods to control their weight were classified as having no dieting behaviours.

Figure 4.12: Dieting behaviours classified by gender

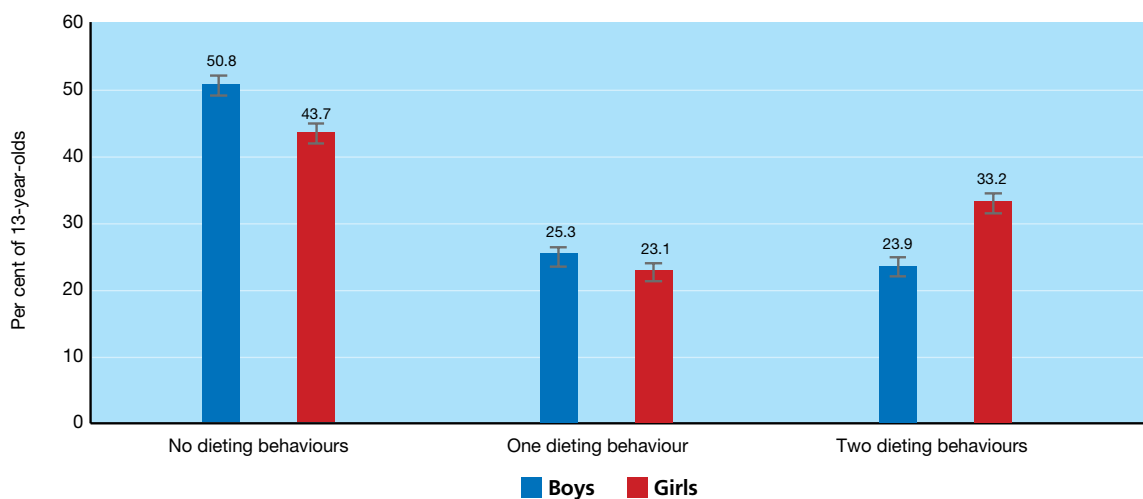


Figure 4.12 shows that almost half of 13-year-olds in *Growing Up in Ireland* (48 per cent) reported no dieting behaviours. However, almost a quarter (24 per cent) reported using either exercise *or* reduced food/calorie intake as a means of losing weight, while 28 per cent reported using both. Girls were significantly more likely (33 per cent) than boys (24 per cent) to use exercise *and* reduce food/calorie intake in order to lose weight.

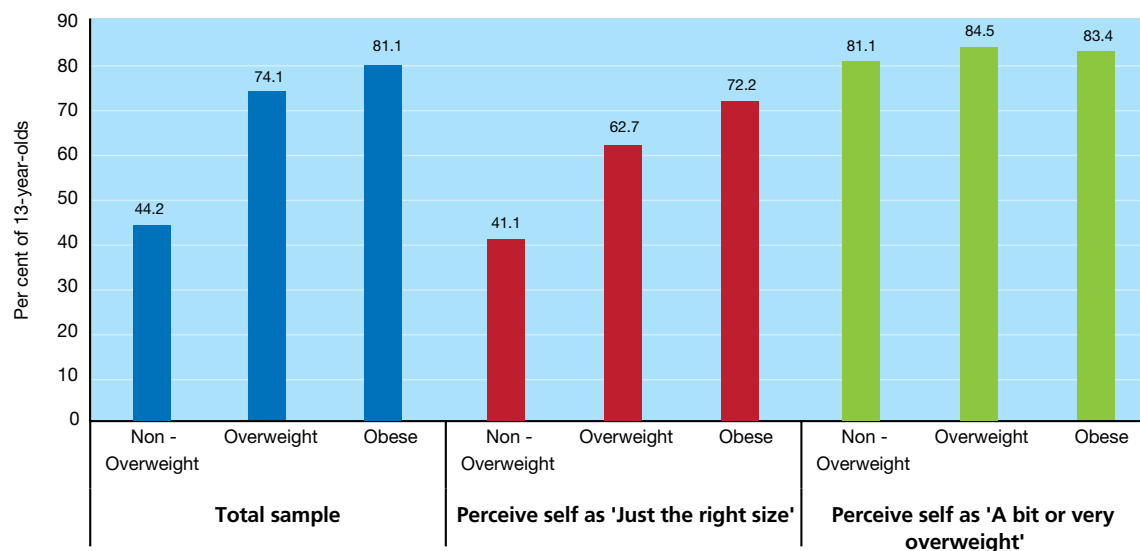
4.2.3 WEIGHT STATUS, WEIGHT PERCEPTION AND DIETING BEHAVIOURS

Figure 4.13 shows that, although non-overweight 13-year-olds were less likely (44 per cent) to diet than those who were overweight (74 per cent) or obese (81 per cent), more than two in five of the non-overweight were dieting in an attempt to lose weight. Where they perceived themselves as *just the right size* they were also less likely to diet (41 per cent). However, among those *non-overweight* children who described themselves as *a bit or very overweight*, dieting was much more common: 81 per cent of this group reported at least one dieting behaviour. It is also notable that these children were almost as likely as *overweight* or *obese* children (who perceived themselves as overweight) to report dieting.

On the other hand, more than half of *overweight* or *obese* children were dieting regardless of their weight perceptions, although the chart shows there is still some relationship to perceptions. For example, *obese* children were generally much more likely than others to diet (81 per cent). However, where *obese* children

described themselves as *just the right size*, this proportion dropped to 72 per cent compared to those who saw themselves as *a bit or very overweight* (83 per cent). Furthermore, those in the *overweight* group were also generally more likely to report dieting (74 per cent). This proportion was much higher among those describing themselves as *a bit or very overweight* (85 per cent), but considerably lower for those who saw themselves as *just the right weight* (63 per cent).

Figure 4.13: Percentage of 13-year-olds using at least one dieting behaviour, by weight status and weight perception



These findings highlight the complexity of this particular issue: the interaction between *perception* of weight and *actual* weight status and the potential importance of perception in driving other behaviours such as dieting. This also raises important questions for policymakers, especially in the case of non-overweight children who are dieting. For instance, is it the case that non-overweight children have dieted in the past or are currently dieting? What is the association between dieting and the types of food consumed? A more detailed look at these issues in order to inform public health messages would be worthwhile.

4.3 PHYSICAL ACTIVITY AT AGE 13

Although there is continuing debate over the amount and type of physical activity needed to improve health in young people (Sallis et al., 2000; Hallal et al., 2006), it is widely agreed that some form of physical activity is beneficial. While it can help in building strong bones, joints, a healthy heart and good mental health, it also helps reduce the risk of developing obesity and chronic diseases such as diabetes, cardiovascular disease and colon cancer (DHHS, 2008). It has been found to reduce feelings of depression and anxiety, and may improve academic performance and factors that influence academic performance, such as concentration and attentiveness in the classroom (CDC, 2010).

Despite the undisputed health benefits, many young people do not engage in the recommended levels of physical activity (Johnson, 2000; WHO, 2010) and longitudinal studies have shown that a steep decrease in physical activity occurs during adolescence, especially among girls (Beech et al., 2003; Kimm et al., 2002). In the Irish context, research by Lunn, Kelly and Fitzpatrick (2013), found that the almost universal participation in sport at primary school level (88 per cent) falls at the point of transition to second level, with roughly one in ten regular sports participants dropping out and those who remain reducing the number of their activities, there is a further fall in participation across the period of second-level education.

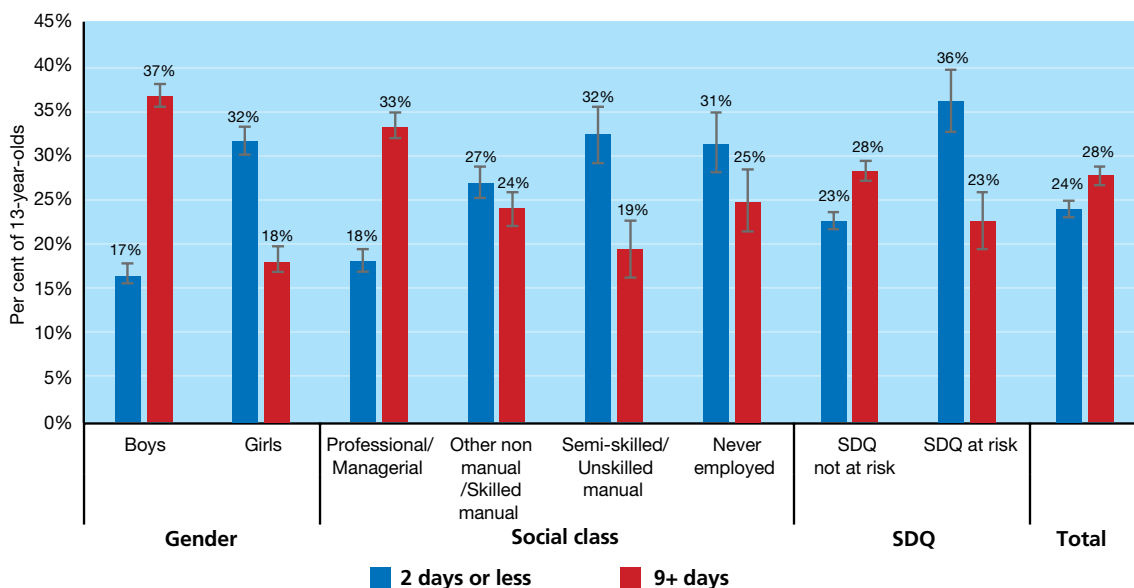
One of the reasons posited for the fall-off in participation at this stage is that, as children become adolescents, their perceptions of gender roles and appropriate behaviour for each gender become more rigid (Liben and Bigler, 2002), and adolescent girls may be more likely than they were as younger children to view sports as a ‘male’ activity. Research with girls has also highlighted that many girls worry that being physically active would ruin their appearance because it may mean getting sweaty and messing up their makeup and hair (Grieser et al., 2006; Whitehead and Biddle, 2008).

In line with World Health Organisation guidelines (WHO, 2010), Irish children are encouraged to partake in 60 minutes of moderate to vigorous activity every day, with muscle-strengthening, flexibility and bone-strengthening exercises three times each week (Department of Health, 2014).²⁰

4.3.1 HARD EXERCISE IN THE PAST 14 DAYS

The *Growing Up in Ireland* 13-year-olds reported on the frequency with which they were participating in *hard* exercise for at least 20 minutes in a day. *Hard* exercise was defined on the questionnaire as activity being sufficiently vigorous to make the heart beat faster (football, jogging, fast cycling). Light exercise was defined as exercise that was not hard enough to make the young person breathe heavily and make the heart beat fast (such as walking or slow cycling). Similar to previous findings from the literature, at thirteen years, boys in *Growing Up in Ireland* were likely to exercise with higher frequency than girls. Figure 4.14 shows that, while girls were more likely than boys to engage in hard exercise for two or fewer days out of 14 (32 per cent compared to 17 per cent), boys were more likely than girls to exercise on nine or more days out of 14 (37 per cent compared to 18 per cent).

Figure 4.14: Number of days in last fortnight 13-year-old participated in hard exercise by gender, social class and being ‘at risk’ of socio-emotional and behavioural problems



The indicators from the *Growing Up in Ireland* study at age 13 do not directly match onto the Department of Health guidelines. For instance, the *Growing Up in Ireland* figures distinguish hard and light exercise and refer to 20 minutes instead of 60 minutes, and measure the number of days over a fortnight instead of a week. Further, days of hard and light exercise might be different days or the same days. Table 4.1 shows the cross-classification of days on which hard and light exercise was undertaken by the 13-year-old. If it can be assumed that the hard and light exercise sessions took place on different days, the shaded

²⁰ <https://www.hse.ie/eng/about/who/healthwellbeing/our-priority-programmes/heal/physical-activity-guidelines/>

area represents the cases where the 13-year-old could have exercised every day for at least 20 minutes. The total figure comes to 42 per cent of 13-year-olds. To get the recommended 60 minutes of exercise a day, the 13-year-old would need to have exercised at least this amount. The figure of 42 per cent, then, could be seen as an upper boundary for the group getting the recommended 60 minutes of exercise each day. This means that fewer than half of 13-year-olds are getting the recommended daily exercise according to national guidelines.

Returning to the figures on hard exercise in Figure 4.14, there were also clear differences by social class. Those in the more advantaged social classes were more likely to engage in hard exercise for nine or more days out of 14. The figure was 33 per cent for those 13-year-olds from professional or managerial backgrounds compared to 19 to 25 per cent among those from other social classes.

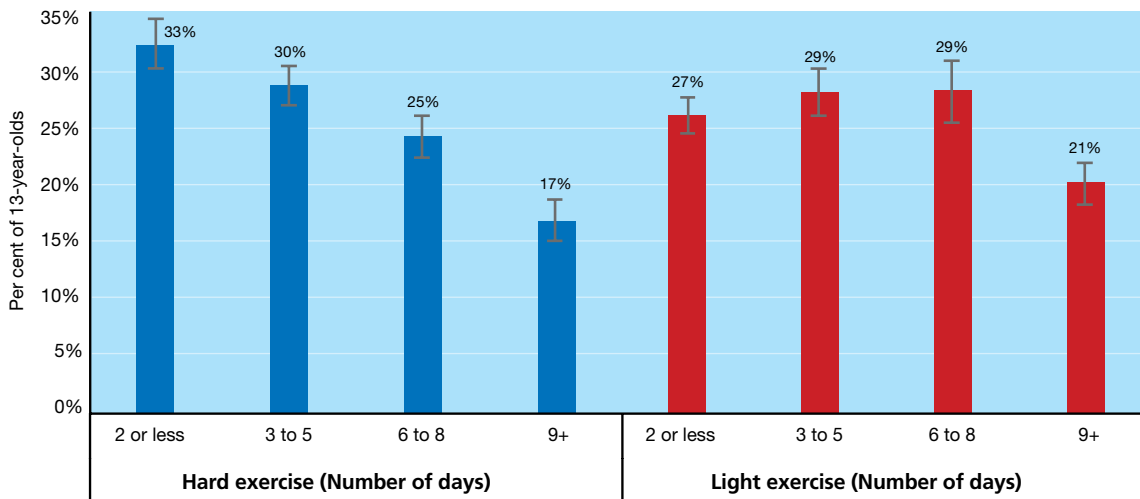
Table 4.1: Number of days on which the 13-year-old does hard and light exercise

		Light Exercise					
		None	1 to 2 days	3 to 5 days	6 to 8 days	9+ days	Total
Hard exercise	None	2%	2%	1%	0%	0%	5%
	1 to 2 days	3%	7%	6%	2%	1%	19%
	3 to 5 days	3%	9%	7%	5%	4%	29%
	6 to 8 days	1%	4%	5%	3%	6%	20%
	9+ days	3%	5%	5%	3%	12%	28%
	Total	13%	27%	23%	14%	23%	100%

Figure 4.14 also shows that those children 'at risk' of socio-emotional and behavioural problems at age 13 were significantly more likely to have engaged in hard exercise on two or fewer days (36 per cent compared to 23 per cent of those not at risk) and significantly less likely to have engaged in hard exercise on none or more days (23 per cent compared to 28 per cent of those not at risk). This does not necessarily imply a causal relationship, however. Those with socio-emotional and behavioural problems may be less motivated to exercise; those who exercise may be less at risk of socio-emotional and behavioural problems, or the association could be due to the link between both of these factors and other characteristics such as family social class.

The link between BMI and exercise at age 13 is shown in Figure 4.15. It shows that 13-year-olds who participated in hard exercise for a greater number of days were less likely to be overweight or obese. The gap is sizeable, ranging from 33 per cent overweight or obese among those who engaged in hard exercise on two or fewer days in the last fortnight down to 17 per cent overweight or obese among those engaging in hard exercise on nine or more days in the same period.

Figure 4.15: Percentage of overweight (including obese) 13-year-olds by number of days in last fortnight they participated in hard or light exercise

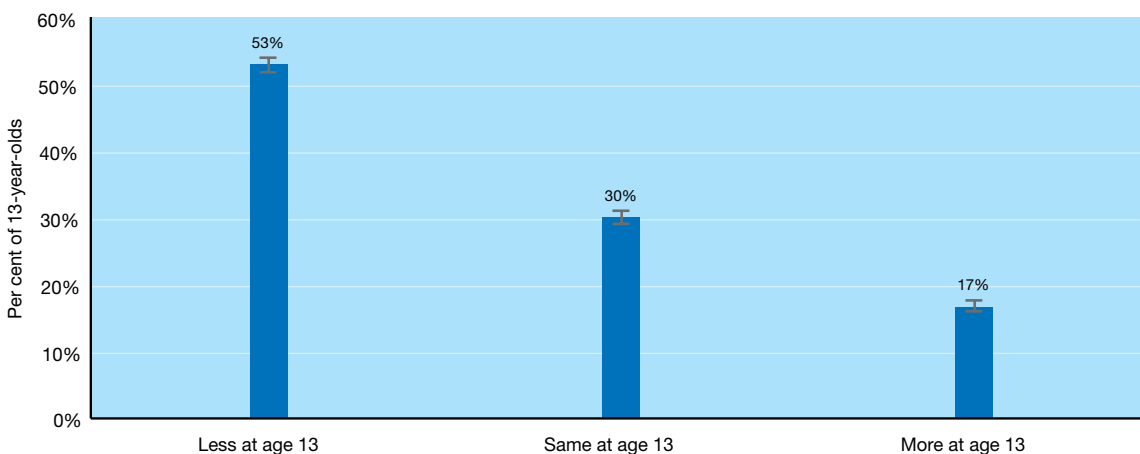


The link between BMI and light exercise is not as clear, with no significant difference in the risk of being overweight observed among 13-year-olds exercising for different numbers of days under eight days. Those engaging in light exercise on nine or more days, however, are less likely to be overweight or obese (21 per cent compared to 27 to 29 per cent among those exercising for less than nine days).

4.3.2 CHANGES IN EXERCISE LEVELS FROM AGE 9 TO 13

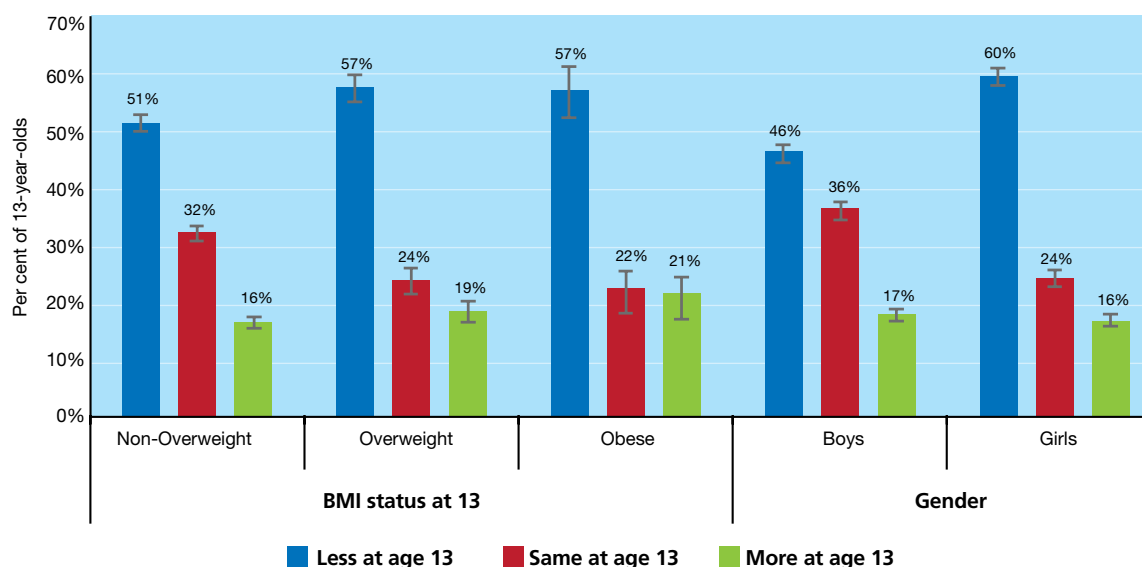
At the first wave of the study, the number of days of hard and light exercise in the last fortnight was reported by the Study Child’s Primary Caregiver. At age nine, most parents (55 per cent) reported that the Study Child had engaged in hard exercise on nine or more days in the last fortnight, but only 28 per cent of the 13-year-olds reported exercising at this intensity. To examine patterns of stability and change in physical activity, a variable was computed to classify 13-year-olds based on comparing their current self-reported exercise levels to those reported by the Primary Caregiver at age nine: *less hard exercise at age 13 than age nine, the same level of hard exercise at age 13 as age nine, or more hard exercise at age 13 than at age nine*. As shown in Figure 4.16, 53 per cent of 13-year-olds were taking less hard exercise than when they were at nine years, 30 per cent were exercising at the same level, and only 17 per cent were taking more hard exercise than they were at nine years.

Figure 4.16: Change in levels of hard exercise between ages 9 and 13



Change in level of hard exercise between nine and 13 years of age was clearly differentiated by gender and weight status. Figure 4.17 shows that, while the main trend across time was towards less exercise, considering each overweight category, heavier children were considerably more likely to be doing less now than when they were at age nine. This was equally true of overweight and obese 13-year-olds (57 per cent doing less at age 13 compared to 51 per cent of non-overweight study participants). Girls were also significantly more likely than boys to decrease their hard exercise levels (60 per cent doing less compared to 46 per cent), while boys were significantly more likely than girls to maintain their level of exercise across time (36 per cent compared to 24 per cent).

Figure 4.17: Change in levels of hard exercise between ages 9 and 13, classified by (a) weight status and (b) gender



4.4 SEDENTARY ACTIVITY

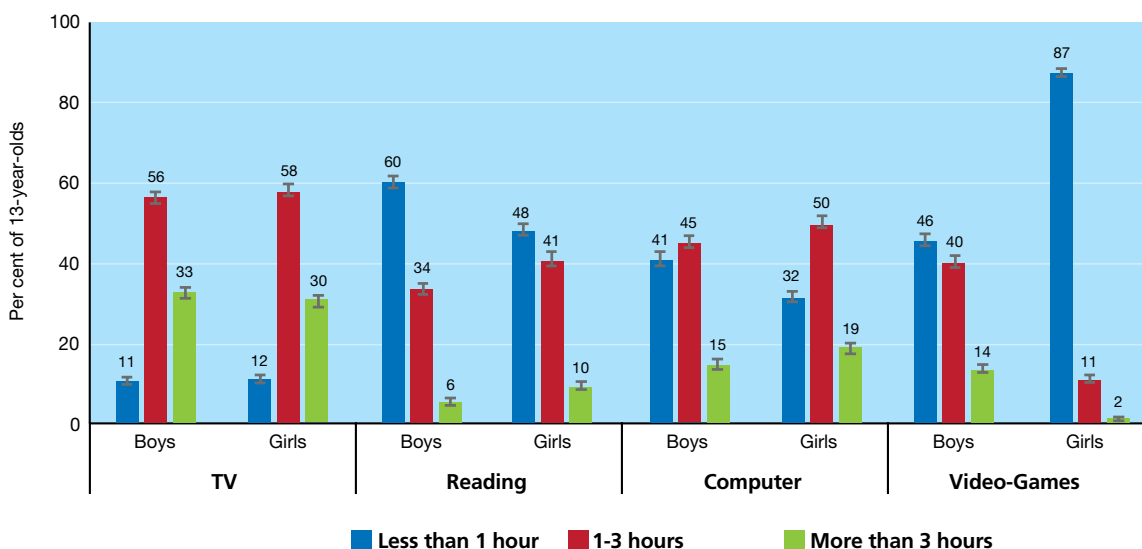
While research on physical activity has increased in recent years, less is known about the correlates of sedentary behaviours in young people, although researchers have called for more work in this area (e.g. Biddle et al., 2004; Owen et al., 2000). Accumulating evidence suggests that, independent of physical activity, sedentary behaviours are associated with increased risk of cardio-metabolic disease, all-cause mortality, and a variety of physiological and psychological problems including obesity (Tremblay et al., 2011). Screen time has increased in recent decades, and television viewing habits in particular have been of considerable interest to researchers. While watching TV has been linked to a decrease in physical activity, it has also been linked to the passive consumption of energy-dense foods.

4.4.1 SEDENTARY ACTIVITY AND GENDER

The 13-year-olds in *Growing Up in Ireland* were asked how much time on an average weekday they spent engaged in certain sedentary activities. While not an exhaustive list, these included activities such as: watching television, videos or DVDs, reading for pleasure, using a computer, and playing video games.²¹ Figure 4.18 indicates that the number of hours spent watching TV, DVDs or videos, on a normal weekday outside school hours, was similar for boys and girls, with the majority watching for between one and three hours. (Numbers in Figure 4.18 have been rounded to eliminate decimal places.)

²¹ Note, however, that some of these sedentary activities, particularly reading, are known to have benefits in terms of academic achievement.

Figure 4.18: Time spent by 13-year-olds on sedentary activities by gender

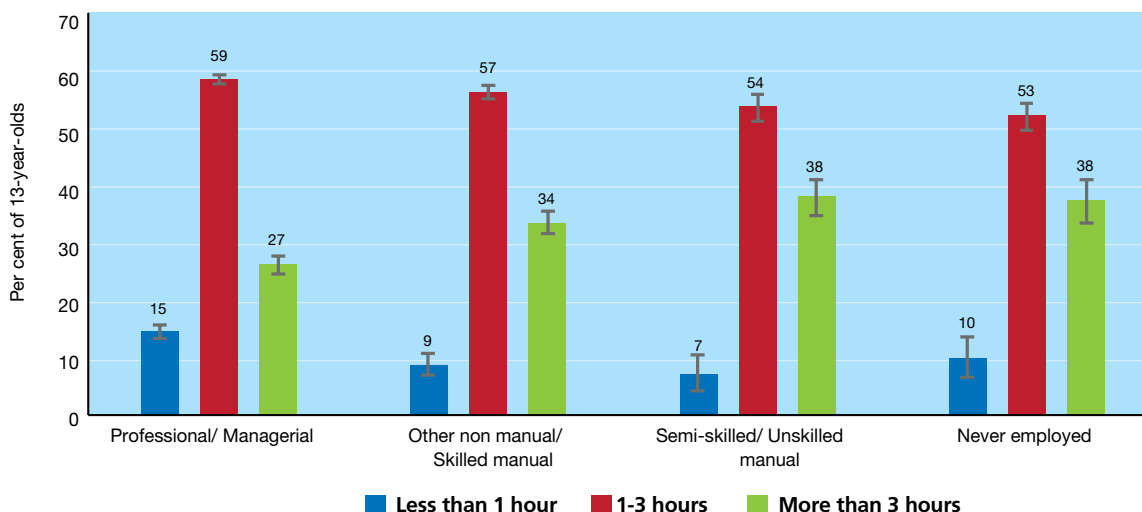


However, in terms of computer usage, girls spent more time than boys using a computer – 69 per cent of girls used a computer for at least one hour a day compared to 60 per cent of boys, who were more likely than girls to report using a computer for less than one hour a day (41 per cent compared to 32 per cent). Girls were also more likely to read for pleasure (51 per cent report reading for more than one hour per day compared to 40 per cent of boys). Conversely, boys were considerably more likely than girls to play video games for at least one hour a day (54 per cent compared to 13 per cent). Additionally, girls were more likely to have a computer in their bedroom than boys (43 per cent compared to 32 per cent), while boys were more likely to have a games console in their bedroom (50 per cent compared to 25 per cent).

4.4.2 SEDENTARY ACTIVITY AND SOCIAL CLASS

Figure 4.19 illustrates a clear social gradient in the number of hours of television watched by 13-year-olds. While the majority of 13-year-olds watched between one and three hours of television per day, those in the lowest social class group were significantly more likely to report spending more than three hours watching television (38 per cent) compared to those in the highest social class (27 per cent).

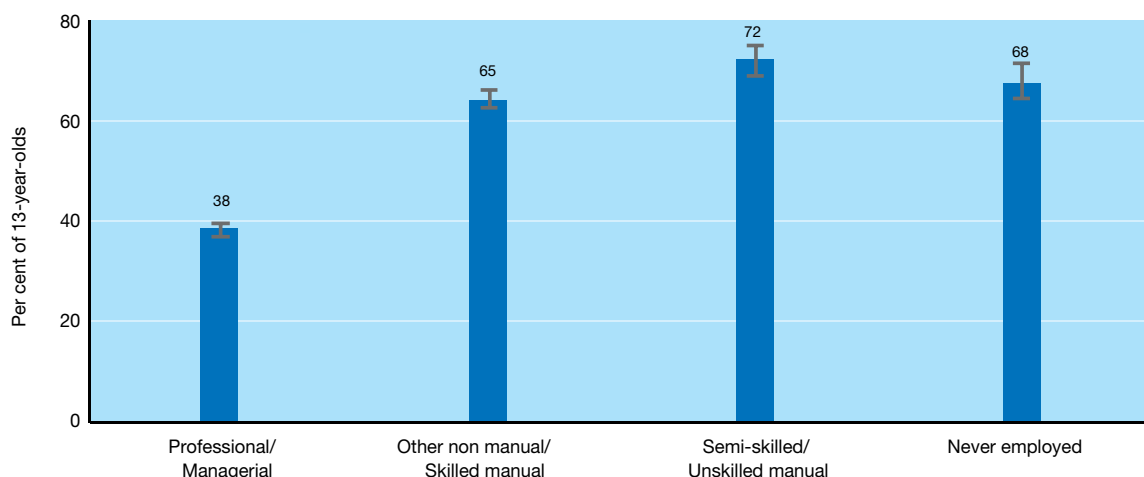
Figure 4.19: Number of hours of TV watched by 13-year-olds by social class





This could be linked to the fact that 13-year-olds in the 'never employed' group were also much more likely to have a television in their bedroom (68 per cent compared to 38 per cent in the professional/managerial social class) (Figure 4.20).

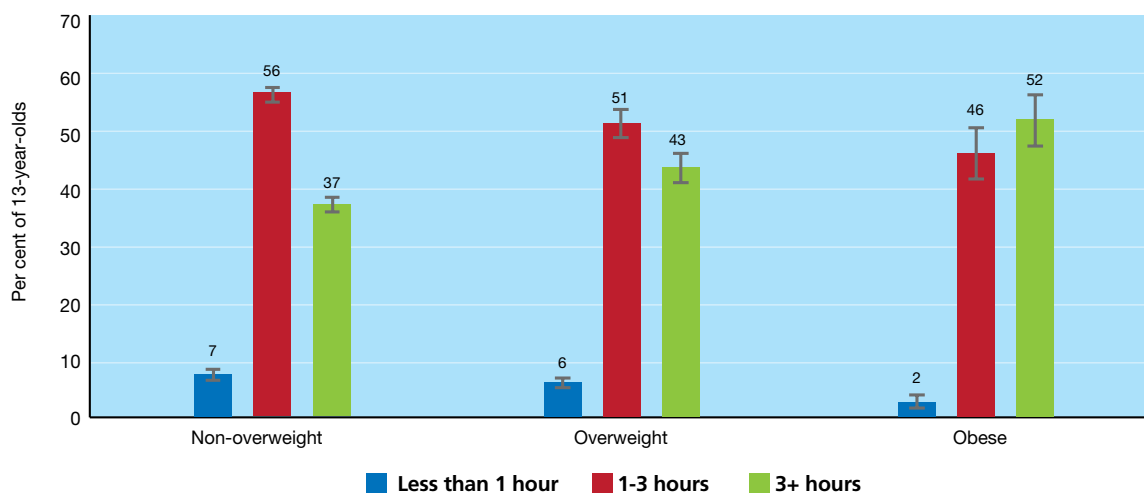
Figure 4.20: Proportion of 13-year-olds who have a television in their bedroom by social class



4.4.3 WEIGHT STATUS AND SCREEN TIME

Weight status was also associated with increased screen time (specifically TV and computer use). Figure 4.21 shows that 37 per cent of non-overweight 13-year-olds spent three or more hours watching TV on a normal weekday, significantly lower than the 43 per cent of overweight and the 52 per cent of obese 13-year-olds. Although the differences were not as stark, computer usage was also higher among obese 13-year-olds, 25 per cent of whom spent *three or more hours* using a computer, compared to 20 per cent of the *overweight* group and 15 per cent of the *non-overweight* group. In this cross-sectional analysis, direct causality cannot be assigned; further longitudinal study is required.

Figure 4.21: Weight status of 13-year-olds and television watching on a weekday

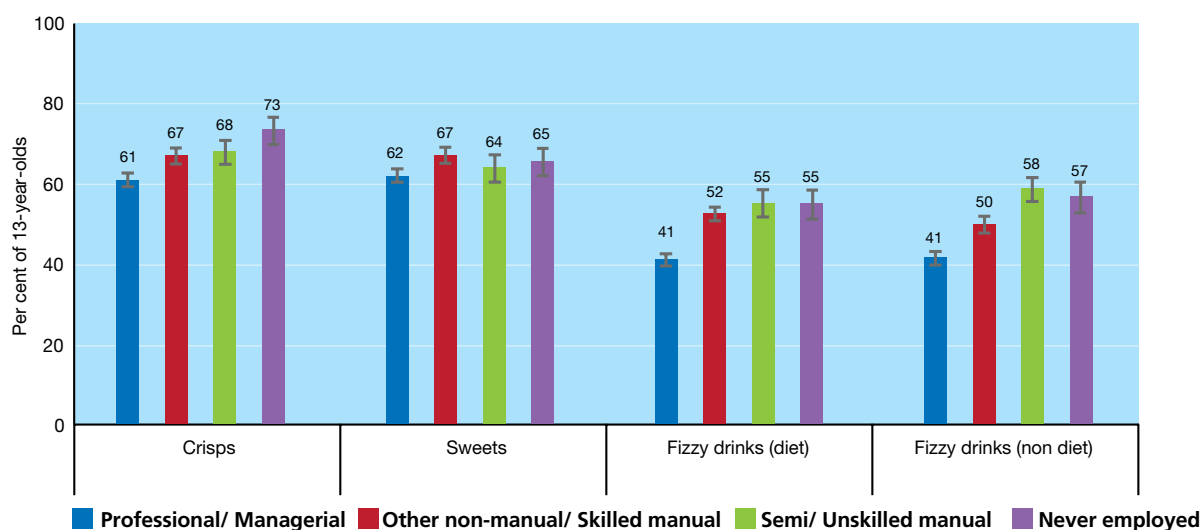


Again, there was a significant difference in the number of 13-year-olds who had a television in their bedroom according to their weight status. Obese 13-year-olds (70 per cent) were considerably more likely to have one than those who were either overweight (60 per cent) or non-overweight (52 per cent). While this may also be linked to social class, it is an important finding in its own right.

4.4.4 SEDENTARY ACTIVITY AND EATING HABITS

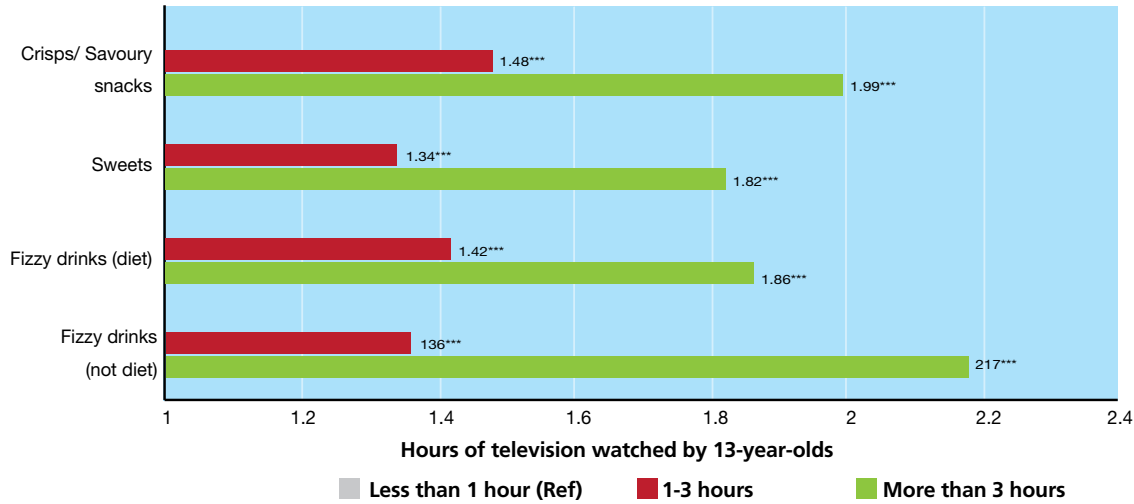
The 13-year-olds were asked to think back to what they had eaten on the day preceding their interview. They were presented with a list of foods and drinks and asked whether they had eaten them *not at all, once or more than once*. Figure 4.22 shows a clear social class pattern in consumption of a variety of snack-like foods and drinks, but the pattern is one where the professional/managerial social class is distinctive (with significantly lower consumption) than the other social classes (which are closer together in terms of consumption levels). The largest gap is for fizzy drinks (both diet and non-diet); the level is significantly lower among 13-year-olds in the professional/managerial social class (41 per cent compared to over 50 per cent in the other social classes). Thirteen-year-olds in the professional/managerial social class are also distinctive in being less likely to consume crisps (61 per cent compared to 67 per cent and above for the other social classes). The pattern is not as clear for eating sweets, however, with a smaller gap between the social classes: 62 per cent for the professional/managerial social class compared to 64 to 67 per cent for the others.

Figure 4.22: Snacking behaviour of 13-year-olds classified by social class



Odds ratios were calculated for hours watching television and snacking behaviours, while including social class in the analysis, given the distinctively lower snacking levels in the professional/managerial social class, as described above. Figure 4.23 shows that, even when social class was accounted for, there was still a positive association between time spent watching television and consumption of some energy-dense foods. For example, those watching *three or more hours* of television were nearly twice as likely to report eating crisps/savoury snacks the previous day (OR, 1.99) as those watching *one hour or less* of television daily.

Figure 4.23: Usual hours watching television and eating snacks/sweets or taking fizzy drinks once or more on previous day, controlling for social class

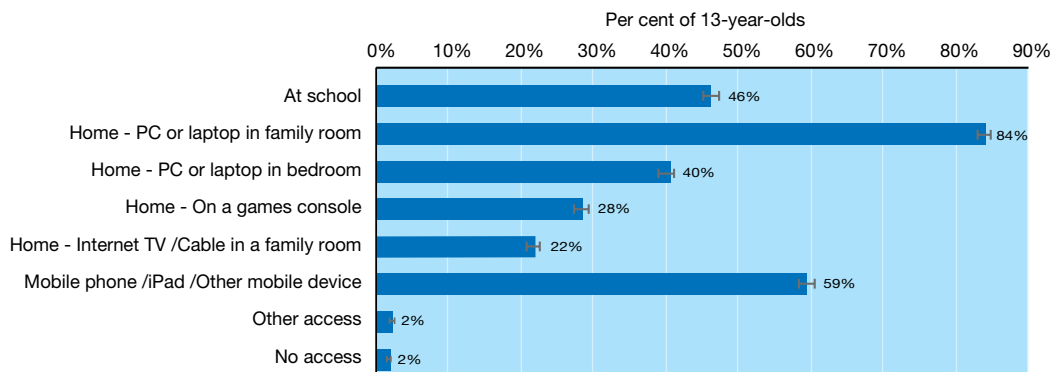


4.5 INTERNET ACCESS AND SUPERVISION

Internet use is a sedentary activity but worthy of attention in its own right as it raises a host of other issues. Like reading, it holds the potential for benefits in terms of its use for school work or self-directed learning by researching topics of interest (Jackson et al., 2006; Burnett and Wilkinson, 2005; Livingstone and Helsper, 2007; Johnson, 2007; Notten, Kraykaamp and Valkenburg, 2009; Takahira, Ando and Sakamoto, 2007; Sandvig, 2003). However, it also has the potential to pose risks to young people. Critics view the internet as constraining children’s social interaction and as potentially exposing children to pornography, violence, sexual predators and cyber-bullies (see overview in Hasebrink et al., 2009). Although there are undeniably risks for children online, including a possible intensification of the effects of bullying and harassment, some of the direst predictions have not been borne out in research (Varnhagen, 2007).

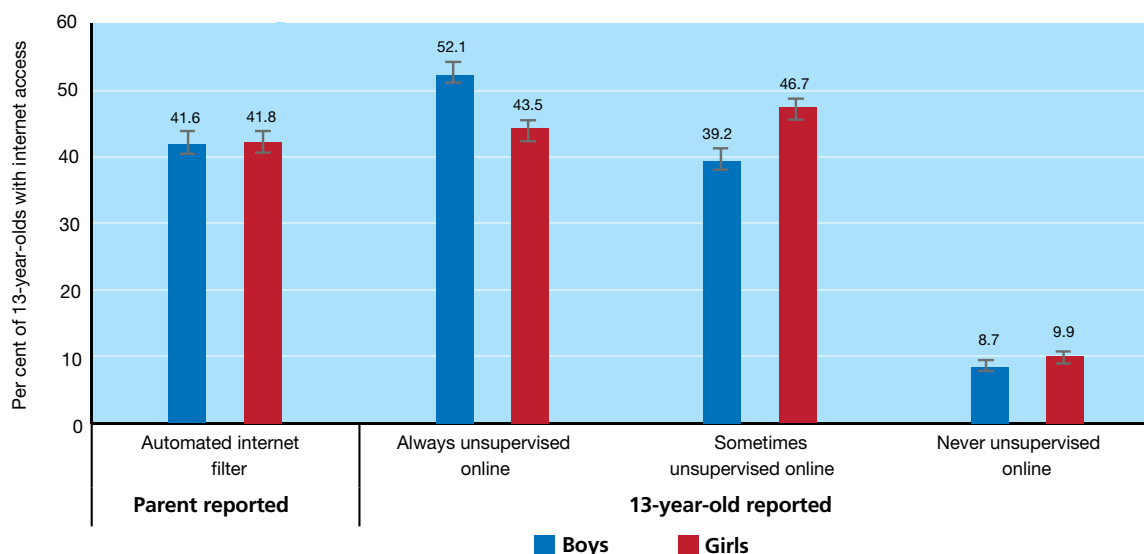
Figure 4.24 shows the percentage of 13-year-olds who reported having access to the internet at home or at school and using different types of access at home. Virtually all 13-year-olds have internet access (98 per cent) and most have access in several different forms. Forty-six per cent have access at school and 84 per cent have access at home on a family PC or laptop. Forty per cent have access through a PC or laptop in their bedroom but another 59 per cent have access through a mobile phone or other mobile device.

Figure 4.24: Percentage of 13-year-olds who have internet access at home or at school



Questions were put to both the Primary Caregiver and to the 13-year-old on whether their access was controlled or monitored at home (Figure 4.25). Forty-two per cent of Primary Caregivers reported using an automated Internet filter to control access to Internet content by the 13-year-old, with no difference between boys and girls. Among the 13-year-olds themselves, some gender differences emerged. Boys were more likely than girls to report that they were always unsupervised (52 per cent compared to 44 per cent) and girls more likely to report being sometimes unsupervised (47 per cent compared to 39 per cent of boys). There was no gender difference in the percentages reporting never being supervised, however, and this figure was below 10 per cent.

Figure 4.25: Internet filtering and supervision, by gender



There is almost universal access to the internet among 13-year-olds, and more than nine out of 10 report being supervised in their access at least some of the time. However, about half report never being supervised and fewer than half of the Primary Caregivers report using automated internet content filters. This suggests there is scope to provide support to parents in this respect to promote a more systematic approach to internet safety.

4.6 OTHER ACTIVITIES

Figure 4.26 shows the percentage of 13-year-olds whose parents report that they participate in other activities at least once a week. While not all of these activities are physically demanding, they do have the potential to reduce the time spent in very sedentary and screen-based activities. Over half of 13-year-olds participate in informal sports or physical activities (56 per cent). These are activities without a coach or instructor and most are unpaid. Nearly two-thirds of 13-year-olds (65 per cent) participate in organised sports or physical activities; according to the parent, these activities are most often paid. Smaller numbers participate in dance, drama or music lessons (24 per cent, usually paid) or other clubs or groups such as scouts/guides and youth or community clubs. Again, these other groups are most often paid activities as well.

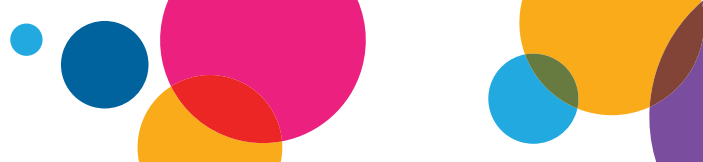
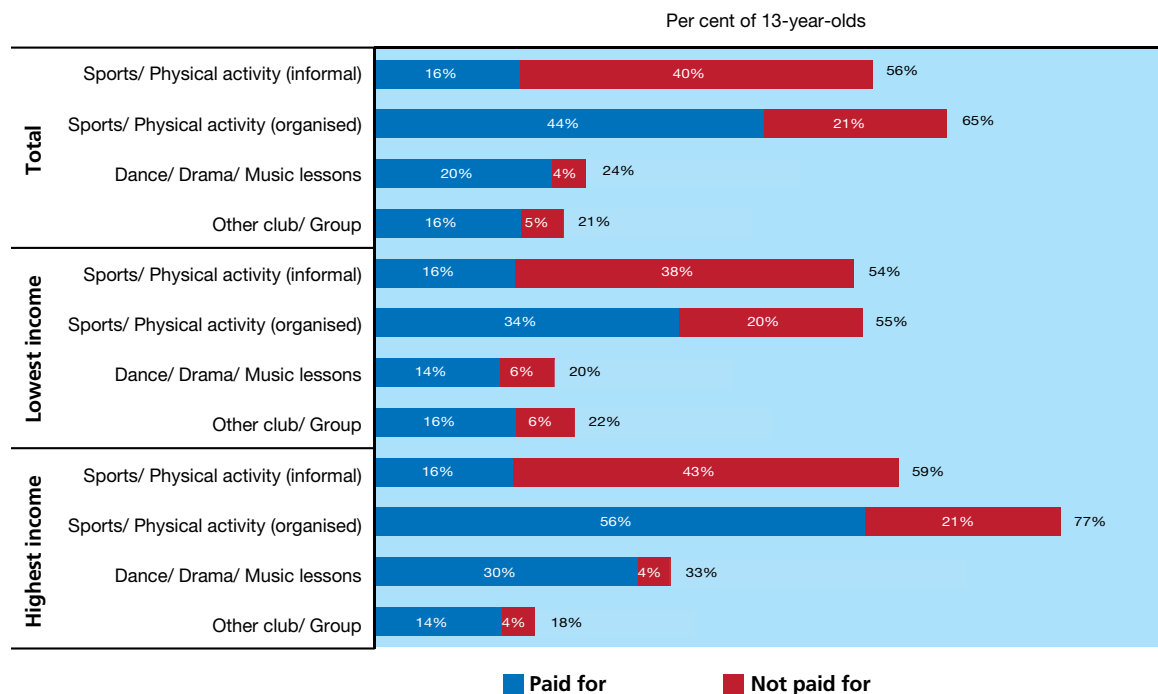


Figure 4.26: Percentage of 13-year-olds involved in other informal and organised activities at least once a week



Margins of error are approximately ±1% for the total figures and approximately ±3% for the figures for each income quintile.

There are differences between the highest and lowest income quintiles in terms of participation in some types of activities, especially organised sports or physical activity (particularly when paid for) and dance, music or drama lessons. For both types of activity, those from the highest income quintile are more likely to participate weekly. There is no difference between the income quintiles in terms of the percentages participating in informal sports or physical activities, however, and participation in other clubs is also very similar for the highest and lowest income quintiles.

4.7 SUMMARY

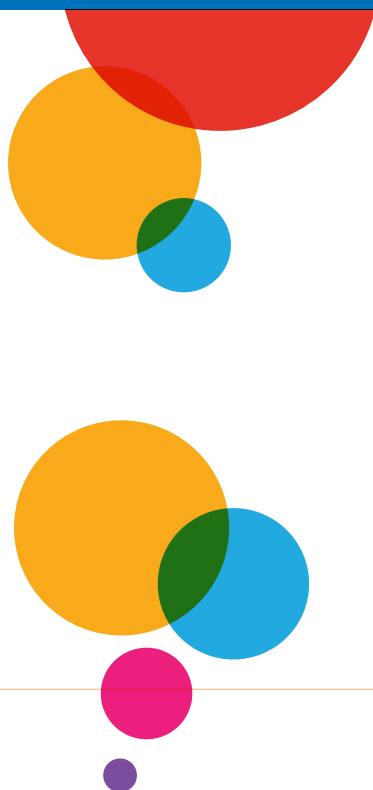
The focus in this chapter has been on the weight status, physical activity level and diet of the 13-year-olds. The main findings can be summarised as follows:

- Nearly three-quarters of 13-year-olds were non-overweight (74 per cent), one-fifth overweight (20 per cent) and six per cent obese. Overall, these figures are very similar to those at age nine. Girls were more likely to be overweight or obese (30 per cent compared to 24 per cent for boys) and the rates of being overweight or obese increased with social disadvantage (32 per cent in the lowest social class). There was a strong association between weight status at age nine and weight status at age 13. However, about half of the children who were obese at age nine were no longer obese at age 13 and about a third of those who had been overweight at age nine had moved to the non-overweight category by age 13.
- The 13-year-olds did not always have an accurate perception of their weight. Of those who were overweight, 47 per cent thought they were 'just the right size' or 'very/a bit skinny' while 21 per cent of those who were obese did not see themselves as overweight. On the other hand, about one in eight of the 13-year-olds who were not overweight or obese believed they were either a bit overweight or very overweight.
- Being overweight or obese at age 13 was associated with a below-average physical self-concept and with a heightened risk of socio-emotional or behavioural problems.
- About half of 13-year-old boys (49 per cent) and more than half of 13-year-old girls (56 per cent) were either modifying their eating or increasing their exercise in order to control their weight. Taking these kinds of action was more common among 13-year-olds who were overweight (74 per cent) or obese (81 per cent).
- Levels of physical activity had declined since age nine, particularly for girls. Only 28 per cent had engaged in hard exercise on nine or more of the last 14 days compared to parent reports of 55 per cent having done so at age nine. Among girls, 60 per cent were doing less hard exercise at 13 than they had been doing at nine. The proportion of boys doing less hard exercise was lower at 46 per cent.
- Internet access was almost universal, either at school, at home or both. Supervision of access was less systematic, however. Only about half of the 13-year-olds were always being supervised and fewer than half of the Primary Caregivers reported use of automated internet content filters.
- There were differences by income in participation in organised sports and physical activity, particularly when these were paid activities: 56 per cent of those in the highest income quintile participated at least once a week in paid, organised sports or physical activities compared to 34 per cent of those in the lowest income quintile.



Chapter 5

THE 13-YEAR-OLD'S PERSPECTIVE ON EDUCATION



5.1 INTRODUCTION

The transition to second-level education represents an important milestone in the lives of 13-year-olds and their families: they move to a new school, encounter new subjects and different teaching styles, and often have a different peer group. Almost all the 13-year-olds had made the transition to second-level education; 46 per cent were in first year while 51 per cent were in second year.

This chapter explores 13-year-olds' perceptions of their schooling experiences, looking at key dimensions of these experiences, including their interaction with teachers, their views on school subjects, how they are coping with schoolwork, and their plans for the future.

- The first two sections look at 13-year-olds' perceptions of the social climate of the school, exploring the quality of day-to-day interactions between teachers and students and the level of self-reported misbehaviour among the 13-year-olds. The remaining sections address 13-year-olds' engagement with school, both from affective (emotional) and objective perspectives.
- The third section looks at the 13-year-olds' attitudes to school while Section Four examines 13-year-olds' attitudes to their school subjects. Section Five examines the amount of time they spend on homework and study during term-time. Section Six examines the factors influencing perceived capacity to cope with schoolwork and 13-year-olds' educational expectations.
- The chapter ends with a summary of the main findings.

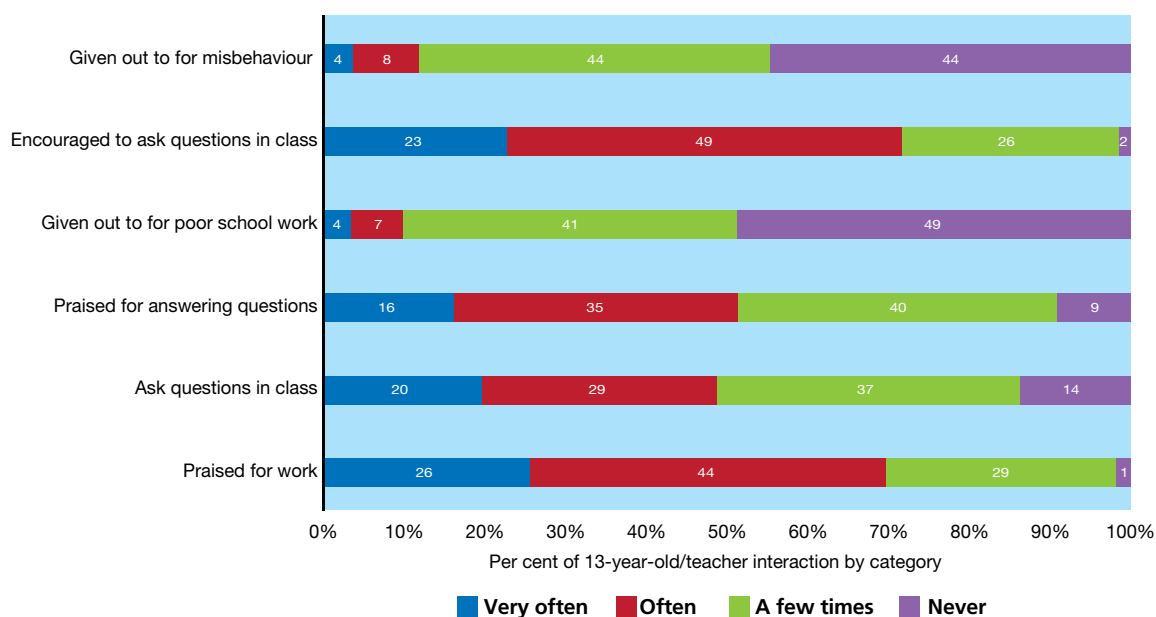
As in previous chapters, and unless explicitly stated, all group differences discussed in the text are statistically significant. Error bars are used in the charts to indicate the upper and lower bounds of the 95% confidence interval around means and percentages.

5.2 TEACHER-STUDENT INTERACTION

There is a body of international research showing a strong association between the quality of relationships between teacher and students and a number of student outcomes, including engagement in schoolwork, levels of disciplinary problems, academic achievement, and feeling a sense of belonging in the school (see, for example, Eccles and Roeser, 2011; Cohen et al., 2009; Martin and Dowson, 2009; Crosnoe et al., 2004). In the Irish context, negative interaction with teachers has been found to be strongly predictive of early school-leaving, educational aspirations, and grades at Junior and Leaving Certificate levels (Byrne and Smyth, 2010; Smyth et al., 2011).

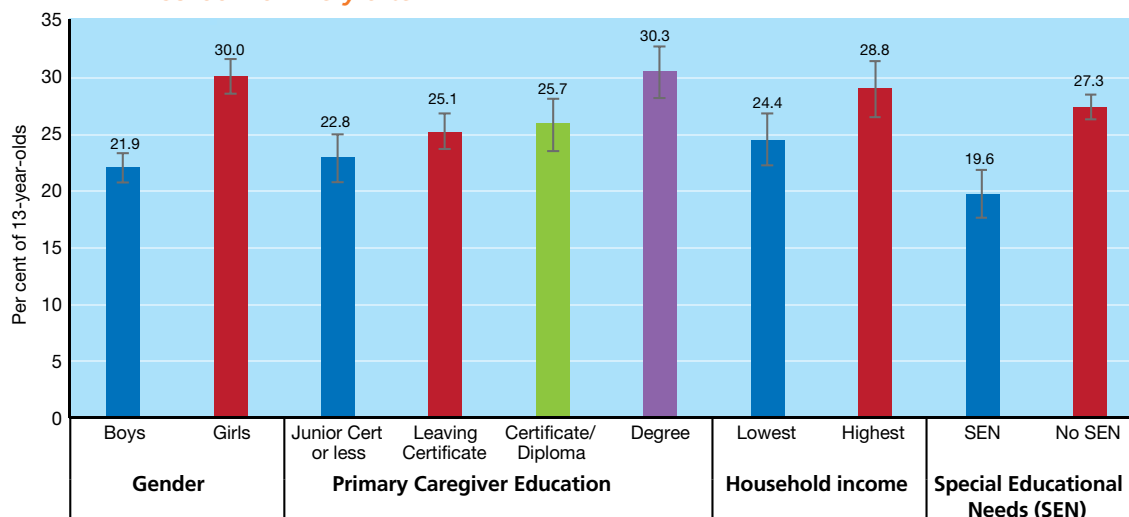
The *Growing Up in Ireland* survey asked the 13-year-olds about the frequency of different types of positive and negative interaction with their teachers in the two weeks prior to their interview. Positive interaction included being praised for their schoolwork or for answering questions in class while negative interaction included being reprimanded or given out to by teachers. Positive interaction and engagement with teachers was found to be more frequent than negative interaction. The majority (72 per cent) of 13-year-olds reported that teachers had *very often* or *often* asked them questions in class, as shown in Figure 5.1. However, it appears that classroom interaction is more strongly shaped by the teacher than the student since fewer (49 per cent) 13-year-olds reported that they had been encouraged to ask questions in class. Thirteen-year-olds reported being frequently praised by their teachers for their schoolwork (70 per cent *very often* or *often*) and for answering questions in class (51 per cent *very often* or *often*). Only a minority of the 13-year-olds reported frequent reprimands from teachers for their schoolwork or for misbehaviour (11 per cent and 12 per cent *very often* or *often* respectively). However, a significant minority – about four in 10 – reported being given out to by teachers 'a few times'.

Figure 5.1: Frequency of positive and negative interaction with teachers among 13-year-olds



Girls reported significantly more positive interactions with their teachers than boys. For example, 30 per cent of females reported being praised by teachers for their schoolwork *very often*, compared with 22 per cent of males (Figure 5.2). Thirteen-year-olds with special educational needs (SEN) reported less positive interaction with their teachers than their peers: 20 per cent reported being praised for their schoolwork *very often* compared with 27 per cent of non-SEN students. Social differentiation was evident in the quality of teacher-student interaction. Thirteen-year-olds whose Primary Caregivers had degree-level qualifications reported significantly more positive interactions than those with lower levels of education, and those from higher-income families reported significantly more positive interaction with their teachers than those in the lowest income category. Some of these differences may be related to higher levels of educational achievement among the children in question. In total, 30 per cent of those with graduate Primary Caregivers said they had been praised *very often* compared with 23 per cent of those whose Primary Caregivers had lower secondary education or less (Figure 5.2). Additional analyses showed that differences in positive interaction were less evident by social class background and did not differ by whether 13-year-olds were in their first or second year of second-level education.²²

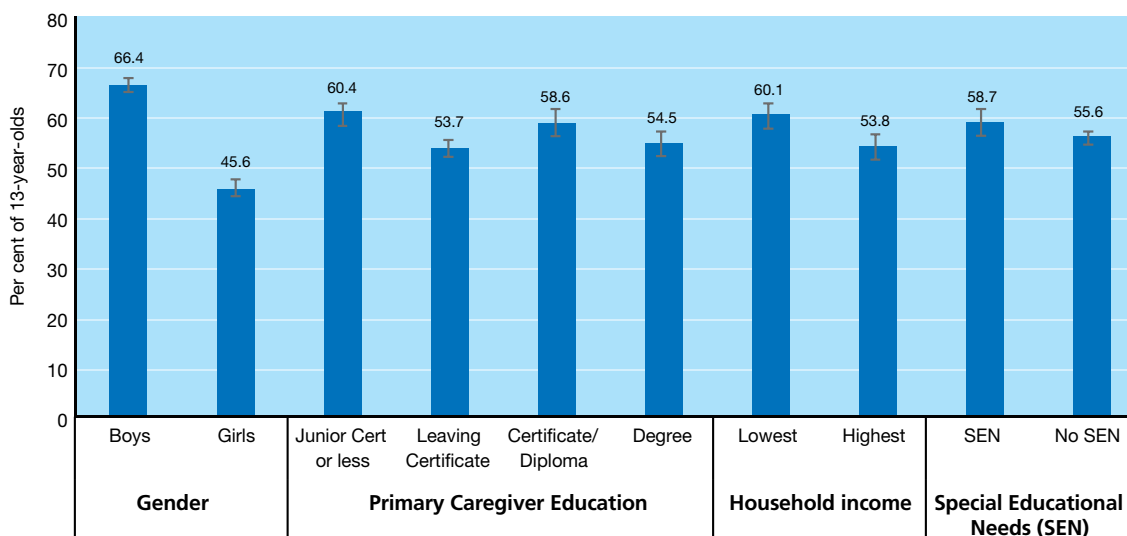
Figure 5.2: Percentage of 13-year-olds who reported being praised by their teachers for their schoolwork *very often*



²² 46 per cent of 13-year-olds were in first year and 51 per cent in second year of second-level education; just three per cent had not made the transition to second level.

Overall, as was seen in Figure 5.1, 56 per cent of 13-year-olds were given out to for misbehaviour a *few times* or more frequently by their teachers. Figure 5.3 shows that the gender gap in levels of negative interaction with teachers was bigger than that in levels of positive interaction: almost two-thirds (66 per cent) of boys had been given out to or told off by their teachers for misbehaviour on at least a few occasions compared with fewer than half (46 per cent) of girls (Figure 5.3). Thirteen-year-olds from lower-income families reported more negative interaction with their teachers than those from higher income families. In addition, 13-year-olds whose Primary Caregivers had lower educational levels (lower secondary or less) experienced more negative interaction than other groups. Students in first year experienced less negative interaction with their teachers than those in second year (46 per cent had been given out to because of their schoolwork compared to 56 per cent of second years). The extent to which being reprimanded for misbehaviour reflected levels of misbehaviour as reported by 13-year-olds will be explored in Section 5.3 below.

Figure 5.3: Percentage of 13-year-olds who reported being given out to by their teachers for misbehaviour ‘a few times’ or more frequently by gender, Primary Caregiver education, household income and SEN

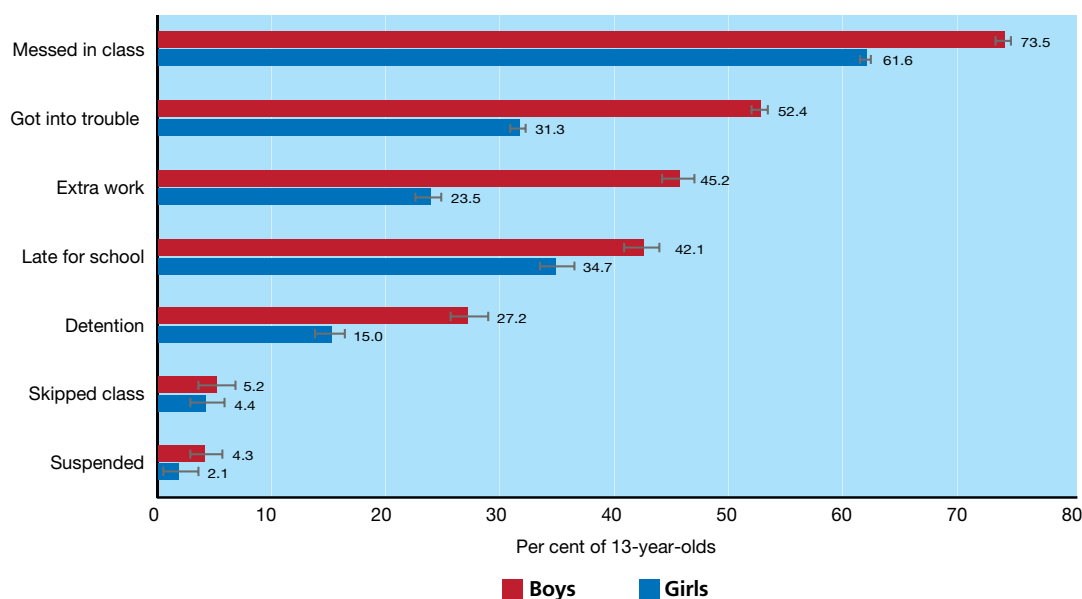


5.3 MISBEHAVIOUR

Student misbehaviour is often closely related to the quality of interaction with teachers. Young people may be reprimanded more frequently by their teachers because of infringement of school rules and/or may act up in response to perceived unfair treatment by teachers. Longitudinal studies indicate that young people who report greater attachment to their teachers have lower levels of misbehaviour in the years that follow, even controlling for social background (Smith, 2006; Way, 2012). Students who feel their schoolwork is irrelevant to their lives and those who struggle with their schoolwork tend to have higher levels of misbehaviour than those who are more academically engaged (Bru, 2006). Misbehaviour levels tend to vary by gender and social class, with more discipline problems found among boys and those from working-class families (Smith, 2006). Misbehaviour at school has been found to be predictive of early school-leaving and lower academic performance (Byrne and Smyth, 2010; Gutman and Vorhaus, 2012). Getting into trouble at school has also been associated with other outcomes; one study shows higher rates of involvement in delinquency among those who had frequently misbehaved in school (Smith, 2006).

The 13-year-olds in the *Growing Up in Ireland* study were asked to indicate the frequency of various forms of their own misbehaviour and related punishment in school over the previous year, with the response categories *never*, *now and again*, *quite often* and *all the time*. There were very significant gender differences. All forms of misbehaviour were more common among boys than girls. Figure 5.4 indicates that 'messaging' in class was the most common form of misbehaviour, with almost three-quarters of boys and over six in 10 girls engaging in this kind of behaviour at least once in the last year. Over half (52 per cent) of male 13-year-olds reported getting into trouble for not following school rules compared with less than a third (31 per cent) of female 13-year-olds. More serious issues, such as truancy and being suspended, had been experienced by only a small number of 13-year-olds.

Figure 5.4: Level of misbehaviour at school in the last year by gender

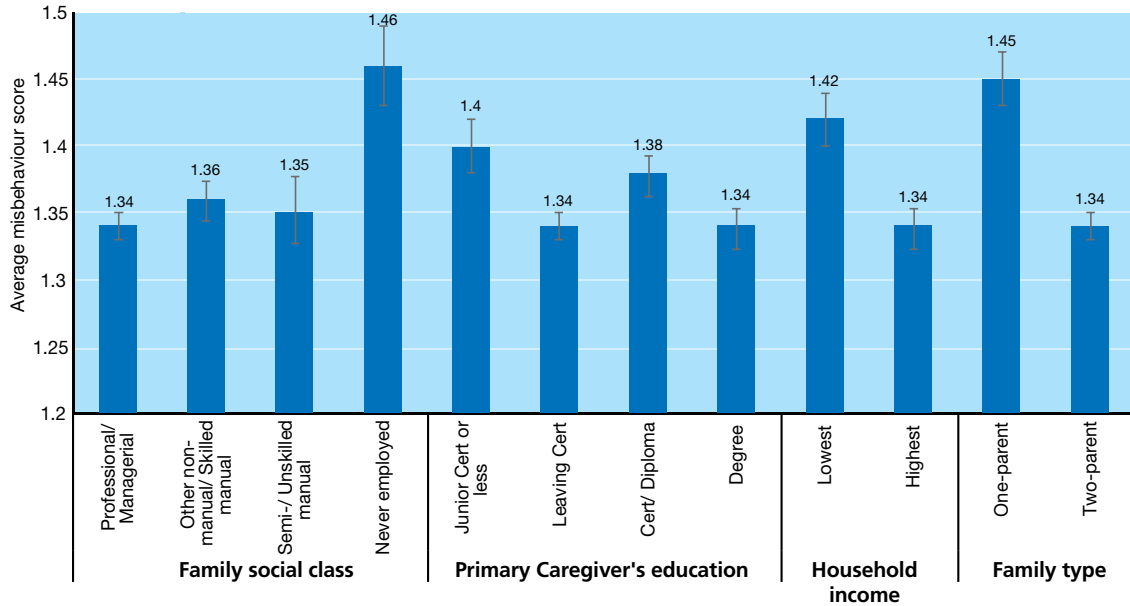


The items were summed into a misbehaviour scale, with scores ranging from one, where the 13-year-old had engaged in none of the behaviours, to a potential maximum of four, where they had engaged in all seven of the behaviours *all the time*.²³ Higher scores indicate higher levels of misbehaviour. Boys had significantly higher levels of self-reported misbehaviour than girls (1.42 compared with 1.29). Thirteen-year-olds with a special educational need also had significantly higher levels of misbehaviour, though the gap was only about half the size of the gender gap (1.41 compared with 1.35). Further analysis showed that the scale of the difference between the two groups varied across different forms of misbehaviour, being larger for getting into trouble for not following school rules and being late for school. However, 13-year-olds with a SEN were less likely to report messing in class than their peers.

As shown in Figure 5.5, 13-year-olds from the lowest social class had higher levels of misbehaviour than those from professional/managerial families, with a gap roughly the size of the overall gender difference. The gap by family type was of a similar magnitude: 13-year-olds from one-parent families tended to have higher levels of misbehaviour than those from two-parent families. Smaller gaps were found between the highest and lowest family income groups and between 13-year-olds whose Primary Caregivers had the highest and lowest levels of education.

²³ The actually observed maximum was 3.71. The scale reliability was 0.735 (Cronbach's alpha). Alpha can range from 0 to 1, with higher values suggesting that items capture a single underlying construct – misbehaviour, in the present case. There is no agreed threshold as to what alpha level is acceptable. The overall mean was 1.36, with a standard deviation of 0.34.

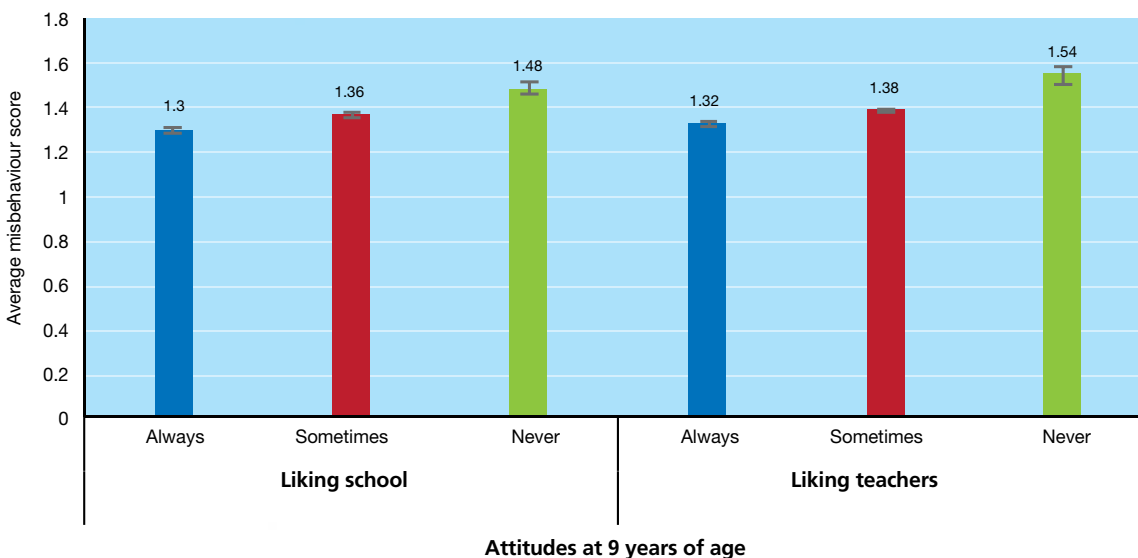
Figure 5.5: Level of misbehaviour at school by social class, Primary Caregiver's education, household income and family type



Patterns of misbehaviour reflected school context as well as family context. In keeping with previous research, which showed an increase in misbehaviour levels as students moved through junior cycle (Smyth et al., 2006), 13-year-olds in second year were found to have higher rates of misbehaviour than those in first year (1.40 compared with 1.31).

Attitudes to school at the age of nine were associated with levels of misbehaviour four years later. Figure 5.6 shows that those who *never liked* school and *never liked* their teacher at the age of nine were more likely to misbehave in school at the age of 13. The gaps here are on a par with the gender differences and are approximately equivalent to the 13-year-olds engaging in one additional type of misbehaviour.

Figure 5.6: Level of misbehaviour at school by attitude to school and to teacher at 9 years of age



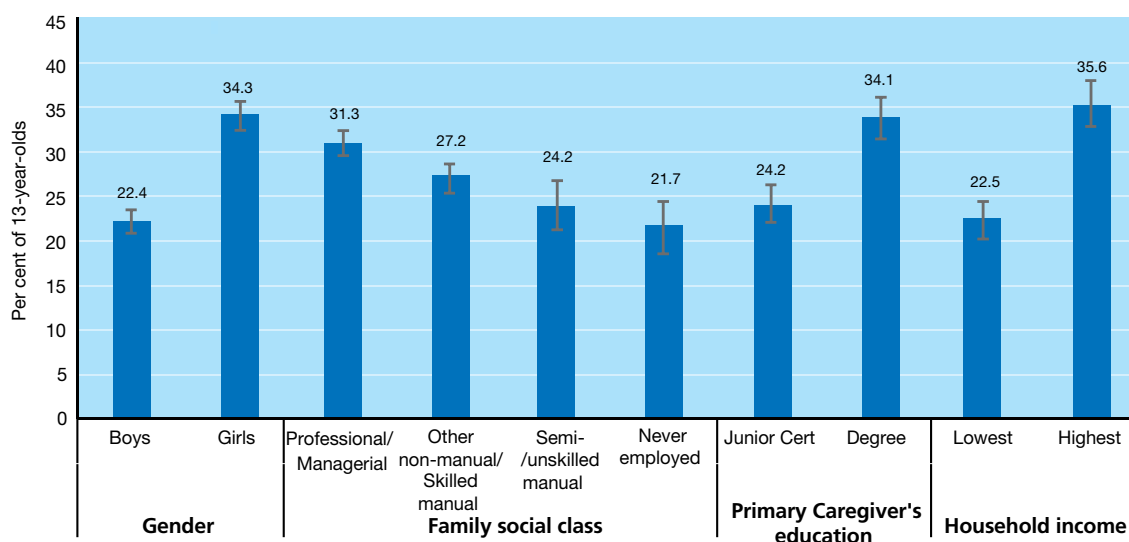
5.4 ATTITUDES TO SCHOOL

International research has shown that enjoyment of school in the early teenage years is predictive of later educational achievement (Vignoles and Meschi, 2010). Attitudes to school have been found to vary by gender and social background, with girls and those with highly educated parents having more positive perspectives (Marks, 1998). Attitudes to school can be enhanced by stronger bonds with teachers (Langenkamp, 2009) while enjoyment of learning can be inhibited by lack of respect from teachers (Gorard and See, 2010).

Most 13-year-olds in *Growing Up in Ireland* had positive attitudes to school: 29 per cent liked it *very much* and a further 33 per cent liked it *quite a bit*. Over a quarter of 13-year-olds described themselves as only liking school *a bit* (27 per cent) while eight per cent felt they did not *like it very much* and three per cent hated school. There were striking differences by gender. Girls were much more likely to like school *very much* than boys (34 per cent compared with 22 per cent) (Figure 5.7).

Attitudes to school also varied by social background; 13-year-olds with highly educated parents and those from professional/managerial backgrounds were much more positive about school than other 13-year-olds. For example, 34 per cent of those whose Primary Caregivers had degree-level qualifications liked school *very much* but this was the case for only 24 per cent of those whose Primary Caregivers had a lower secondary qualification (Figure 5.7). Similarly, those from professional/managerial/technical and higher-income households had more positive attitudes to school than other groups (Figure 5.7). Thirteen-year-olds with special educational needs had less positive attitudes to school than their peers (25 per cent liking school *very much* compared with 30 per cent of those without a SEN – not shown). Similar to results from previous research on junior cycle students (Smyth et al., 2008), 13-year-olds in second year had considerably less positive attitudes to school than those in first year: 24 per cent of second years liked school *very much* compared with 34 per cent of first years.

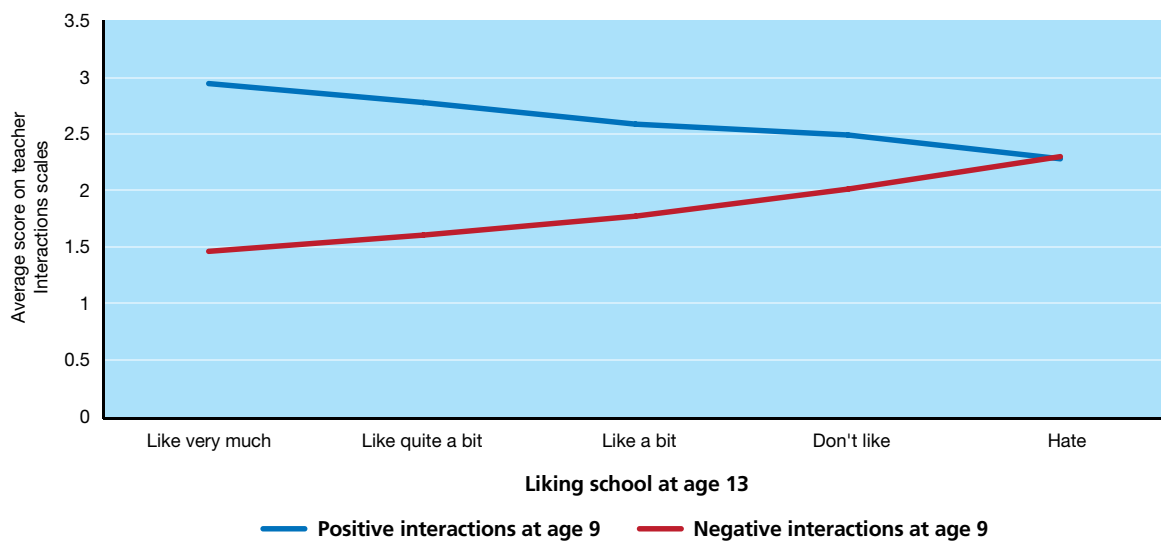
Figure 5.7: Percentage of 13-year-olds who liked school 'very much' by gender, household social class and Primary Caregiver's education



The previous section outlined the nature of interaction with teachers. Analyses of *Growing Up in Ireland* data showed a strong relationship between the frequency of positive and negative interaction and the extent to which 13-year-olds reported liking school. Figure 5.8 shows the relationship between the scores on the teacher interactions scales at age nine (positive and negative interactions shown separately) and liking school at age 13. Those who liked school *very much* had much more frequent positive interaction (score of 3.0) than those who hated school (score of 2.3); the reverse was the case for negative interaction, with the highest levels among those who *hated* school (score of 2.3 compared to 1.5 for those who liked school *very much*). For those 13-year-olds who were particularly negative about school, they were as likely to receive reprimands as praise (Figure 5.8).

As with all cross-sectional analyses, causal relationship cannot be assumed to exist between attitudes to school and the quality of pupil-teacher interaction. The longitudinal nature of the study means that this process can be unpacked further, however. The same measures of teacher-student interaction were not used at the ages of nine and 13, but perceptions (liking) of the teacher can be used as a proxy for the quality of such interaction. Perceptions of the teacher at the age of nine were found to have longer-term implications; a quarter of those who *never* liked their teacher at nine had very negative attitudes to school at the age of 13 compared with 10 per cent of those who always liked their teacher and 12 per cent of those who sometimes liked their teacher.

Figure 5.8: Positive and negative interaction with teachers at age 9 by attitudes to school at 13 years of age



Broader attitudes to school at the age of nine were also found to be predictive of later attitudes. Those who *never* liked school at nine years had especially negative attitudes four years later. However, there was a significant shift in attitudes too – some from positive to negative, others from negative to positive. Figure 5.9 shows that 13-year-olds who ‘always liked’ school at the age of nine were more likely to *like school very much* at the age of 13. Thus 40 per cent of those who *always liked* school when they were nine liked it very much when they were 13, compared with 17 per cent of those who *never* liked school at the age of nine. Attitudes to Reading, Maths and Irish at age nine were also associated with later school attitudes. Irish and Reading were particularly strongly predictive of subsequent school engagement. Thus, almost a third (31 per cent) of those who always liked Reading at the age of nine liked school very much when they were 13 compared with 19 per cent of those who never liked it. The differential for Maths was narrower than for Reading or Irish.

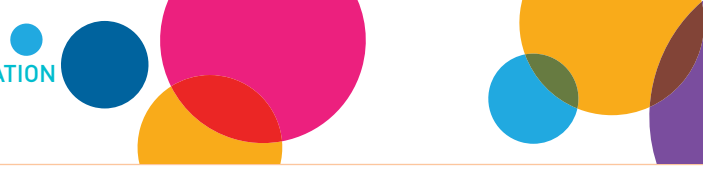
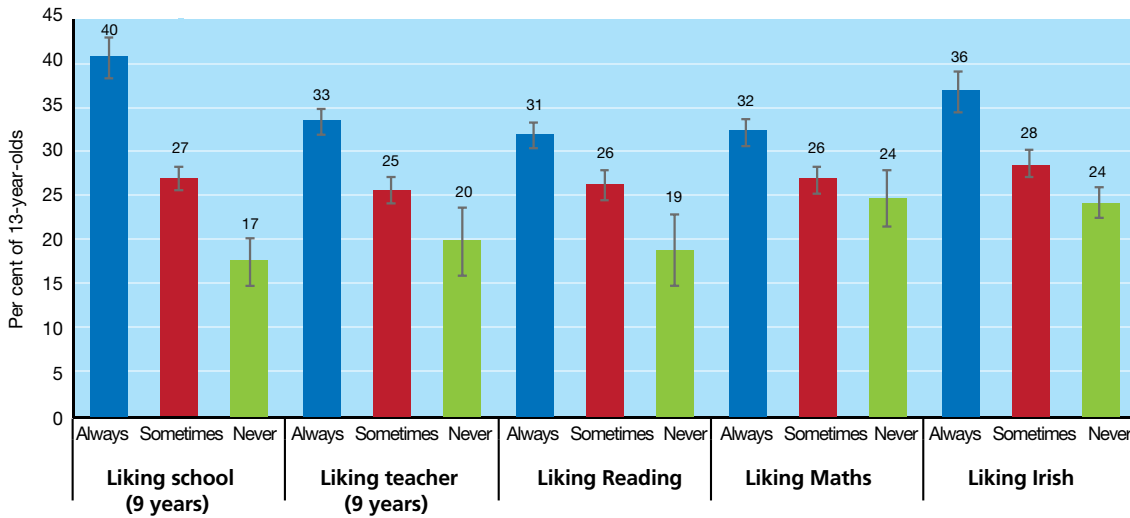


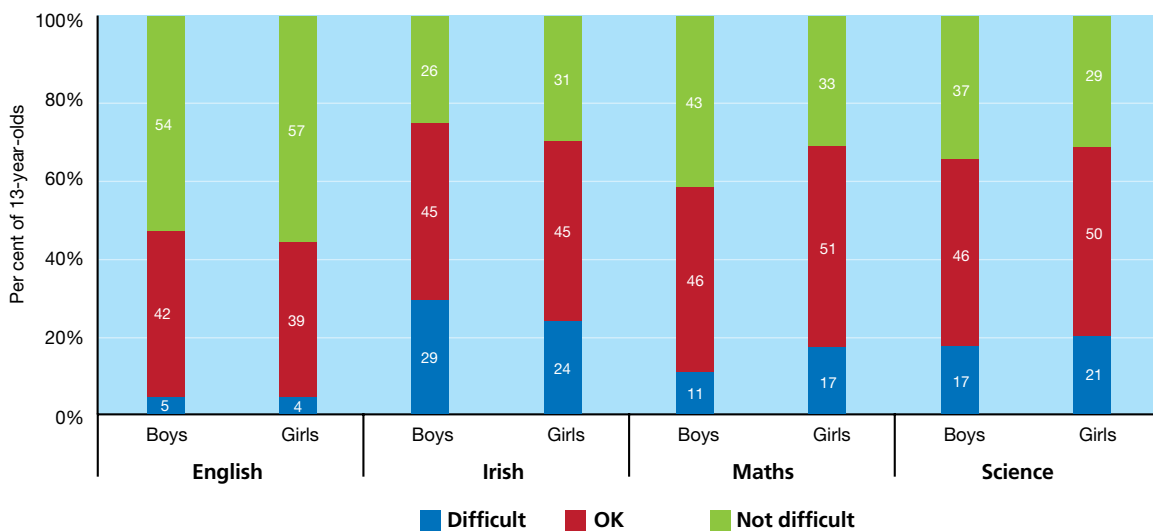
Figure 5.9: Percentage of 13-year-olds who liked school 'very much' by attitudes to school, teacher, Reading, Maths and Irish at the age of 9



5.5 ATTITUDES TO SCHOOL SUBJECTS

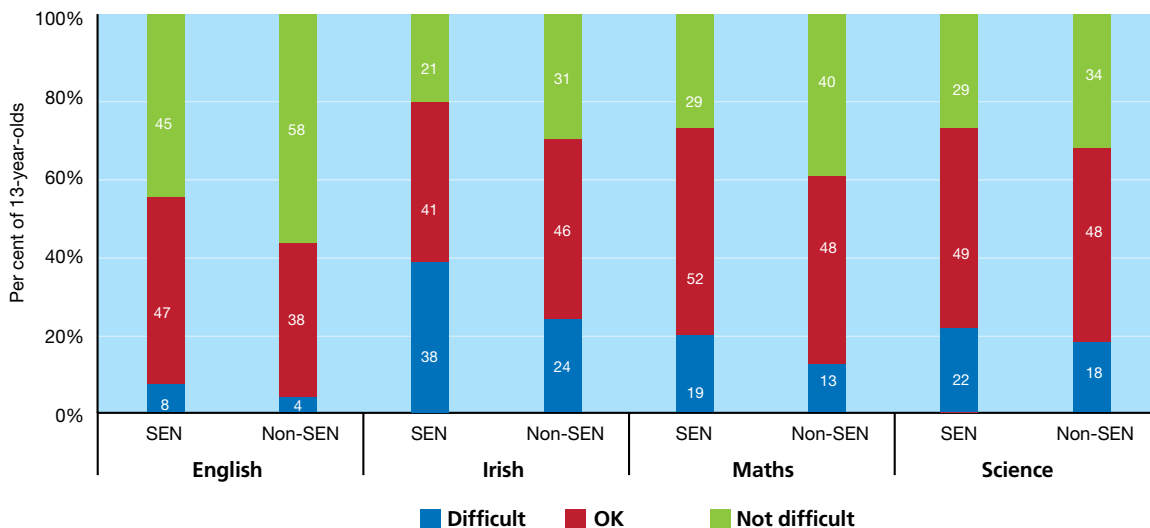
As well as asking about school in general, 13-year-olds were asked about the extent to which they found four subjects (English, Irish, Maths and Science) difficult or interesting. In order to compare like-with-like in terms of subject content, these analyses were limited to those 13-year-olds already in second-level education. Thirteen-year-olds were more likely to describe English as *not difficult* than they were the other three subjects specified (Figure 5.10). Perceived difficulty was greatest for Irish than for the other specified subjects. Girls were somewhat more likely than boys to describe English as *not difficult* but the difference was slight (57 per cent compared with 54 per cent). Girls were less likely than boys to describe Irish as difficult (24 per cent compared with 29 per cent) but more likely to describe Maths and Science as difficult (17 per cent compared with 11 per cent for Maths; 21 per cent compared with 17 per cent for Science).

Figure 5.10: Perceived difficulty of English, Irish, Maths and Science by gender



Thirteen-year-olds with special educational needs were more likely than their peers to find all of the subjects difficult (Figure 5.11), although these differences were least evident for Science. Perceived subject difficulty was greater for second-years than first-years in relation to Maths (16 per cent compared with 11 per cent) and Science (21 per cent compared with 16 per cent) but there were no such differences in relation to English and Irish.

Figure 5.11: Perceived difficulty of English, Irish, Maths and Science by special educational needs



Some variation was found in perceived subject difficulty by family background characteristics, and more so for Irish and Maths than for English or Science. Table 5.1 indicates the group differences that were statistically significant (the unshaded cells in the table). Thus, 13-year-olds in lower social class households were significantly more likely to find Irish and Maths difficult, but the differences were not statistically significant for Science and English. The same pattern (i.e. significant differences in the percentages of 13-year-olds finding Maths and Irish difficult, but no significant difference for English and Science) was found by family type and household income. Differences were found by Primary Caregiver’s education for Maths, Irish and Science but not for English.

Reading and Maths performance at the age of nine was predictive of later subject difficulty. Those in the lowest Reading quintile at age nine experienced more difficulty across all four subjects at age 13, though the differences were smaller for English. Maths performance at age nine was associated with finding Maths, Irish and Science difficult at age 13, but there was no association with finding English difficult.

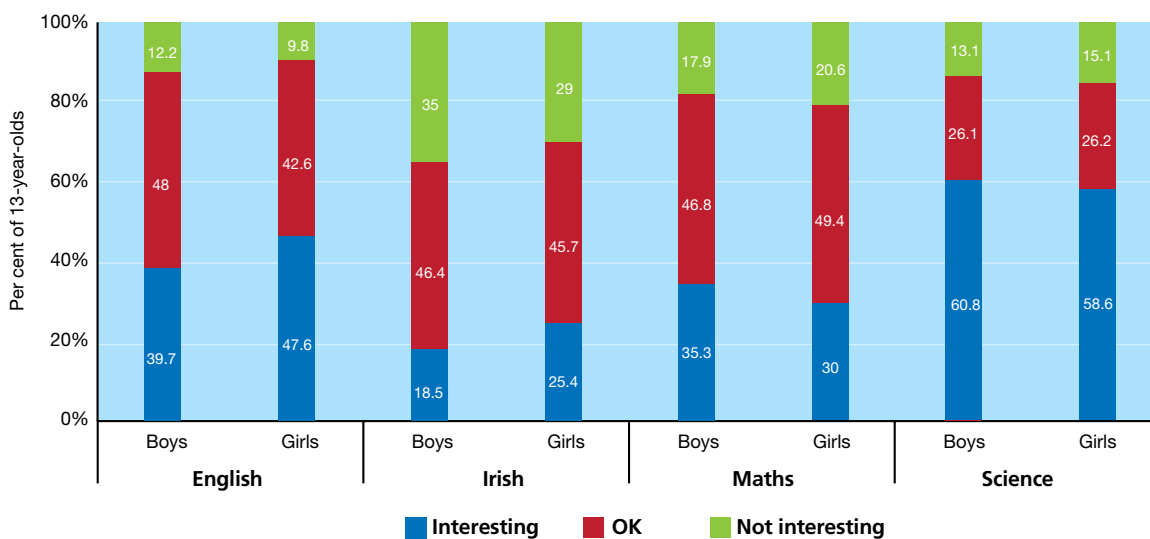
Table 5.1: Percentage finding subjects 'difficult' by family background, and Reading and Mathematics performance at the age of 9

	English per cent	Irish per cent	Maths per cent	Science per cent
Primary Caregiver's education:				
Junior Cert or less	3.8	31.8	17.5	23.1
Leaving Certificate	4.4	26.1	14.9	18.7
Certificate/Diploma	3.8	23.6	12.8	18.9
Degree	6.6	24.1	9.0	15.7
Social class:				
Professional/managerial	5.2	22.8	11.3	18.5
Other non-manual/skilled manual	4.1	29.1	14.4	17.8
Semi/unskilled manual	3.4	25.8	18.5	22.4
Never employed	5.4	32.5	17.8	19.5
Household type:				
One-parent	6.1	34.6	16.8	18.0
Two-parent	4.3	24.4	13.0	19.1
Household income (equivalised):				
Lowest quintile	4.5	29.3	14.8	19.8
Highest quintile	4.6	21.3	9.1	16.2
Reading performance at 9:				
Lowest quintile	5.2	36.3	15.7	21.2
Highest quintile	3.6	21.9	8.8	13.8
Mathematics performance at 9:				
Lowest quintile	4.4	34.9	19.9	19.8
Highest quintile	4.6	21.0	7.6	13.8

Note: The lighter shaded areas represent group differences that are not statistically significant according to a one-way analysis of variance.

As well as subject difficulty, 13-year-olds were also asked about the extent to which they found their school subjects interesting or not. Gender differences were apparent in perceived interest in the different subject areas. Girls were more interested in the language-based subjects: 48 per cent were interested in English compared with 40 per cent of boys, while 25 per cent were interested in Irish compared with 19 per cent of boys (Figure 5.12). Boys were more likely to describe Maths as interesting than girls (35 per cent compared with 30 per cent). Levels of interest in Science did not differ significantly between boys and girls.

Figure 5.12: Perceived interest in English, Irish, Maths and Science by gender



Differences by socio-economic status and household type were also examined (Table 5.2). Thirteen-year-olds with more highly educated Primary Caregivers tended to be more positive about their school subjects, although the difference for interest in Irish was not statistically significant. Similarly, 13-year-olds from professional/managerial backgrounds tended to find all four subjects more interesting than those from 'never employed' households. The only significant differences by income category was the higher level of interest in Science among 13-year-olds from the highest income group.

There were no significant differences in subject interest between 13-year-olds from one- and two-parent families. This is a little surprising, given the observed differences between these groups on most of the outcomes examined and given the association between lone parenthood and the other markers of disadvantage (lower education and social class).

Reading performance at the age of nine was predictive of later interest in all four subjects, making more of a difference for interest in English and Science. Maths performance at the age of nine was associated with slightly more positive attitudes to English and Irish but was strongly predictive of later interest in Maths and Science.

Table 5.2: Percentage finding subjects 'interesting' by family background, and Reading and Mathematics performance at the age of 9

	English per cent	Irish per cent	Maths per cent	Science per cent
Primary Caregiver's education:				
Junior Certificate	40.8	20.7	28.5	53.9
Leaving Certificate	42.6	22.0	30.4	57.4
Certificate/Diploma	42.6	22.8	32.6	63.6
Degree	48.8	22.2	38.8	65.5
Social class:				
Professional/Managerial	45.6	23.1	34.6	63.0
Other non-manual/Skilled manual	41.7	21.2	29.6	56.8
Semi/unskilled manual	44.9	24.1	32.1	56.6
Never employed	39.7	16.6	30.4	58.9
Household type:				
One-parent	43.3	19.5	31.5	61.3
Two-parent	43.7	22.5	32.4	59.4
Household income (equivalised):				
Lowest quintile	39.3	18.0	32.2	52.1
Highest quintile	45.3	24.6	36.0	65.3
Reading performance at 9:				
Lowest quintile	38.7	18.5	29.2	53.7
Highest quintile	51.5	26.0	36.7	66.7
Mathematics performance at 9:				
Lowest quintile	40.9	20.2	22.2	56.2
Highest quintile	43.7	22.0	43.4	64.8

Note: The lighter shaded areas represent group differences that are not statistically significant according to a one-way analysis of variance.

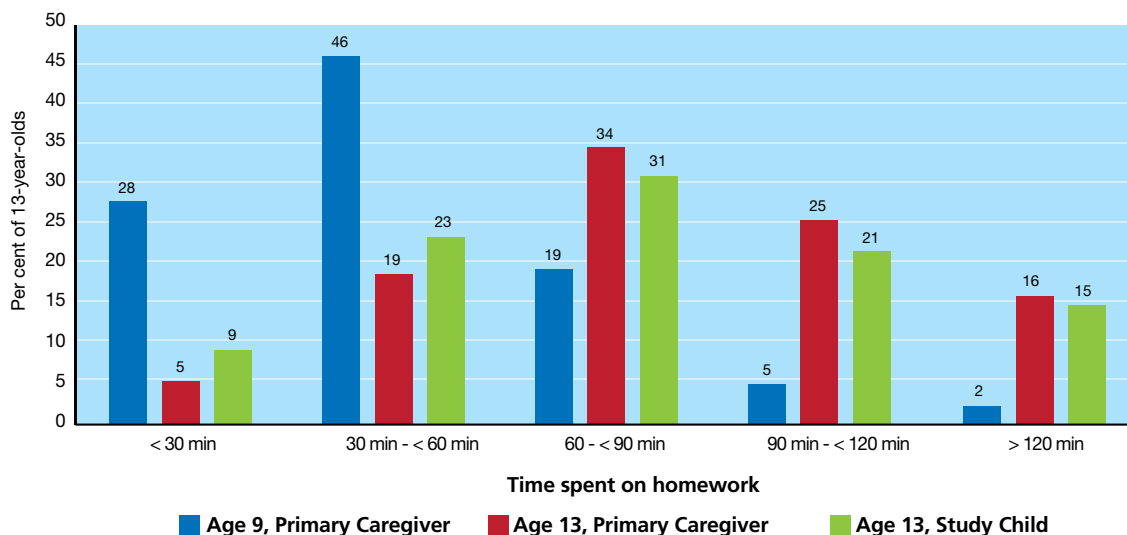
5.6 HOMEWORK

International research has shown that 13-year-olds spend significantly more time on homework at secondary level than in primary school (Cooper et al., 2006). A systematic review of studies indicated that spending more time on homework is associated with higher achievement, all else being equal, and that this relationship is stronger at older ages (Cooper et al., 2006). However, the relationship between homework and achievement is not always clear-cut since spending more time on homework may reflect greater student motivation, or may be driven by students taking more time to complete homework because of difficulties with schoolwork (Trautwein and Köller, 2003). In the Irish context, time spent on homework and study is found to be predictive of Junior and Leaving Certificate exam performance, even controlling for prior achievement and student attitudes to school (Smyth et al., 2008, 2011).

Growing Up in Ireland data indicate a very significant increase in the time spent on homework between the ages of nine and 13 (Figure 5.13). Almost three-quarters of Primary Caregivers reported that their nine-year-old children spent one hour or less per evening on homework during term-time. By the age of 13, , significantly more time was being spent on homework, the most common pattern being 1-1½ hours per

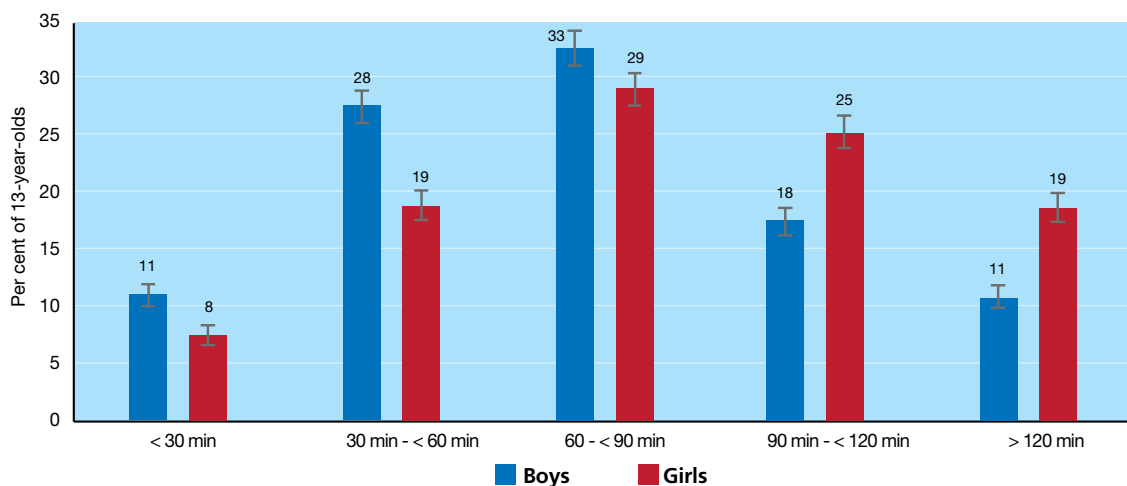
evening (as reported by both Primary Caregiver and the 13-year-old), with one in six 13-year-olds reporting spending more than two hours per night on homework. Reports of time spent on homework by 13-year-olds were statistically significantly lower than the time reported by Primary Caregivers, but the magnitude of the difference was small.

Figure 5.13: Time spent on homework at ages 9 and 13, as reported by Primary Caregivers and 13-year-olds



There were very substantial gender differences in the time spent on homework; 39 per cent of boys spent less than an hour compared with 27 per cent of girls (Figure 5.14). At the other extreme, 19 per cent of girls spent more than two hours a night on homework compared with 11 per cent of boys. Other analyses (not shown here) indicated that thirteen-year-olds with special educational needs spent less time than their peers on homework, with 14 per cent spending less than half an hour compared with eight per cent of other 13-year-olds. There were also differences by social background, especially in the proportion spending less than half an hour on homework. Thus, this was more prevalent among those whose Primary Caregivers had lower levels of education (15 per cent of the lower secondary group compared with seven per cent of those with graduate Primary Caregivers), those from non-employed households (16 per cent compared with seven per cent of those from professional/managerial families), those from low-income families (14 per cent of the highest quintile compared with five per cent of the lowest quintile) and those from one-parent families (14 per cent compared with nine per cent of those from two-parent families).

Figure 5.14: Time spent on homework by gender, as reported by 13-year-olds



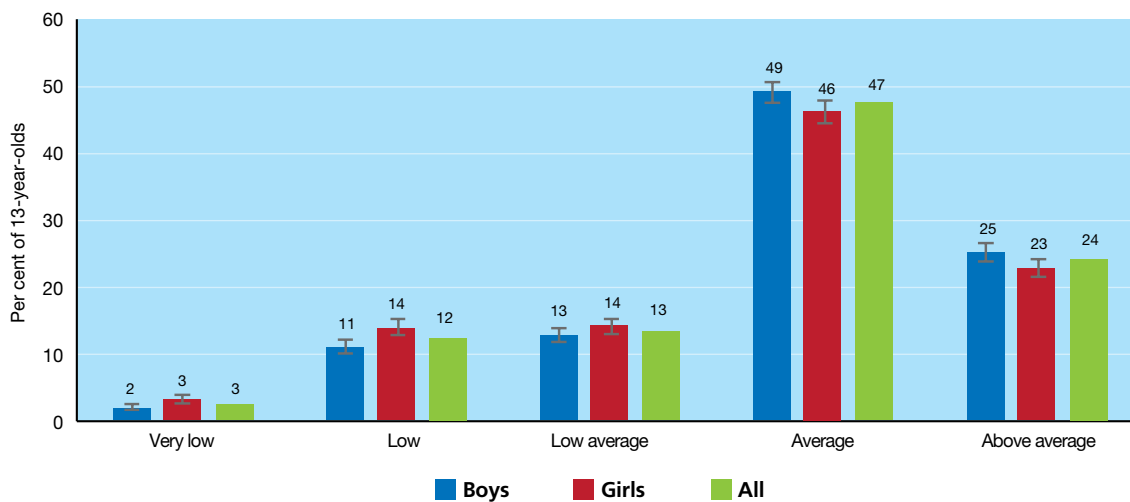
5.7 ACADEMIC SELF-IMAGE AND EDUCATIONAL EXPECTATIONS

In considering young people's perspectives on their education, it is important to explore how they view themselves as learners both currently and in terms of their longer-term plans.

Academic self-image (often termed academic self-concept) refers to a person's beliefs about their own academic abilities (Shavelson et al., 1976). Males have been found to have more positive views of their academic abilities than females (Young and Mroczek, 2003), especially in subjects such as Mathematics and Science that can be viewed as 'masculine' (Marsh and Yeung, 1998). Academic self-image can be influenced by the external context in which students find themselves; thus, those in a class with highly attaining peers are more likely to consider themselves 'below average' than those with low-attaining classmates (Marsh and Hau, 2003). Academic self-image has a reciprocal relationship with academic achievement; prior achievement influences self-image but self-image influences later achievement, even controlling for initial performance (Marsh and Craven, 2006).

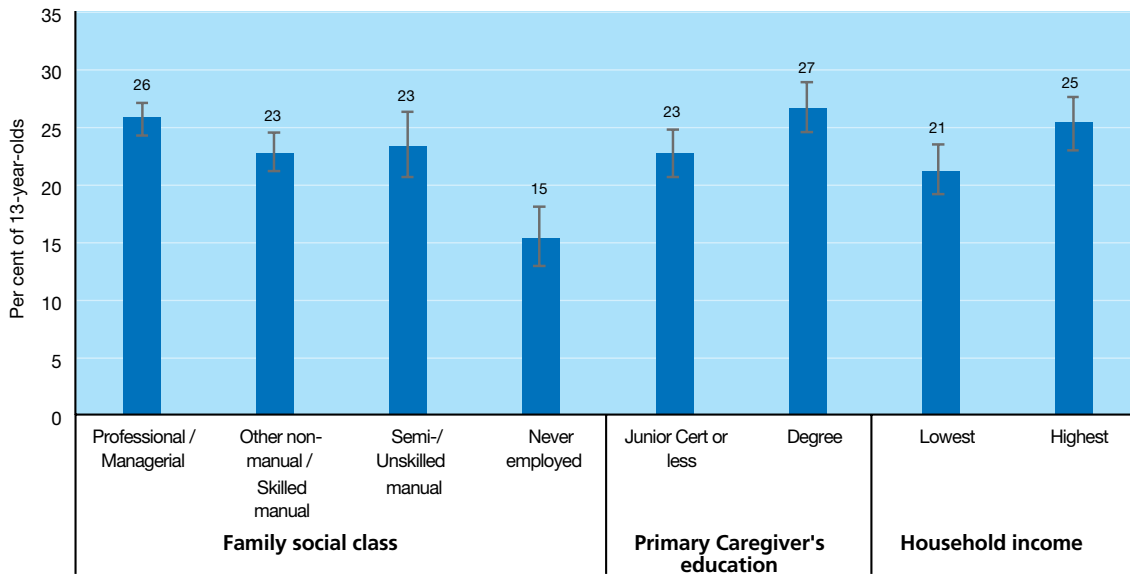
In *Growing Up in Ireland*, academic self-image is measured using the intellectual status subscale of the widely used Piers-Harris self-concept scale. This subscale includes items such as 'I am smart' and 'I am slow in finishing my schoolwork'. The scale has been classified into five groups, ranging from very low to above average. The majority of 13-year-olds in Ireland fell into the average or above-average categories. Females were somewhat less positive about their capacity to cope with schoolwork, as measured by the Piers-Harris intellectual status scale; 23 per cent fall into the above average category compared with 25 per cent of males (Figure 5.15, a statistically significant difference). A striking difference was found by special educational needs. Only 13 per cent of students with SEN fall into the above-average category compared with 27 per cent of their non-SEN peers (not shown).

Figure 5.15: Academic self-image of 13-year-olds by gender



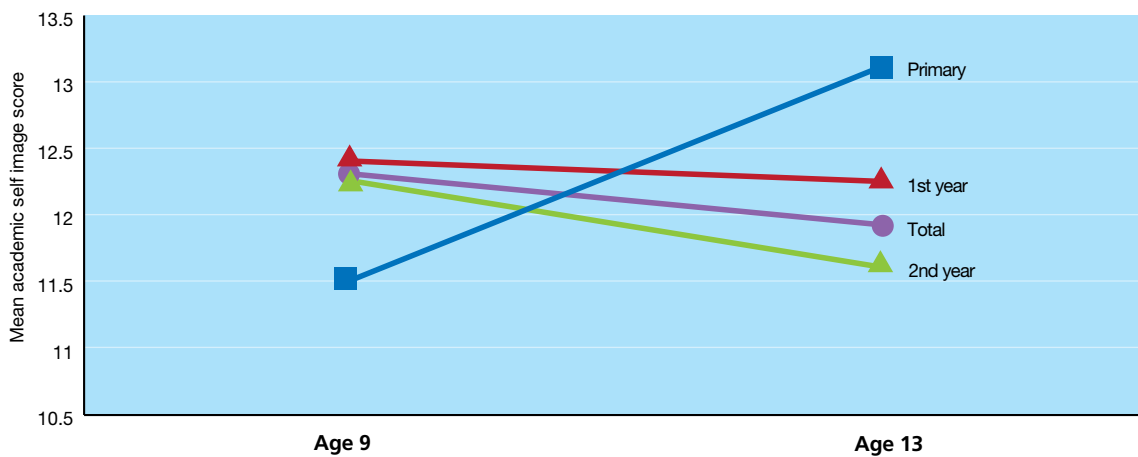
Academic self-image varied significantly by social class. The 13-year-olds in the professional/managerial class were much more likely than those in the never employed social class to fall into the above average group. Figure 5.16 shows the mean scores in each group which illustrates that the variation by household income and Primary Caregiver's education was not as marked as for social class.

Figure 5.16: Mean academic self-image by family background



Academic self-image at the age of nine was predictive of academic self-image four years later. However, there was also a good deal of movement. Some 13-year-olds moved from the below-average to the average/above average categories. There was just a modest correlation between the measures at the two time-points (correlation was 0.244). For the whole sample, there was a drop in score between the two time-points (Figure 5.17), in keeping with previous international research which indicates a decline in academic self-image over the transition to second-level education (see, for example, De Fraine et al., 2007; Eccles et al., 1993).

Figure 5.17: Changes in academic self-image score between 9 and 13 years by school class at 13

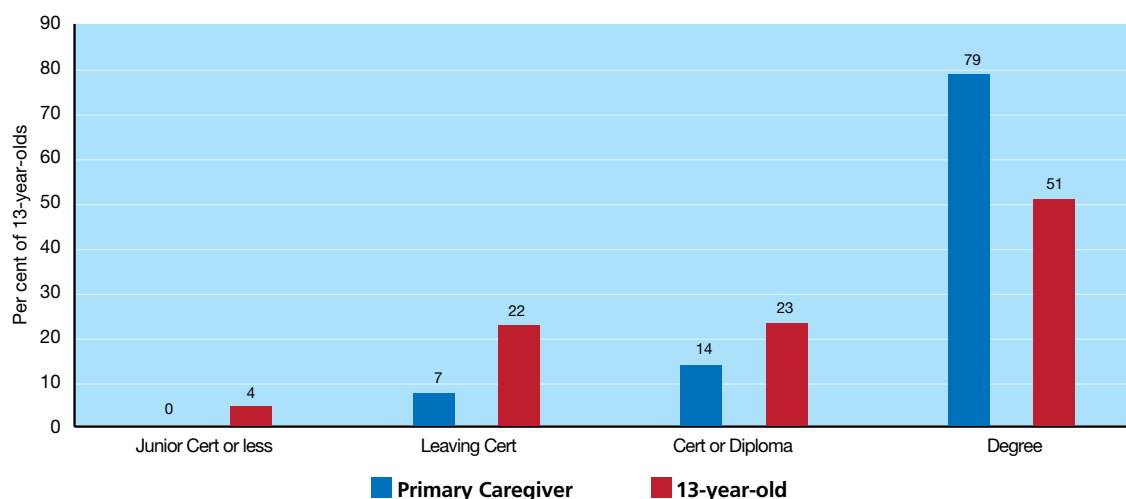


This pattern was found to vary by year group, with a greater decline in academic self-image for second-year students compared with first-year students (Figure 5.17). Unlike the rest of the group, those still in primary school experienced an increase in their self-image, though this pattern must be interpreted with caution due to the small number of 13-year-olds involved. In addition the small group who remained in primary school at 13 years of age had a higher than expected proportion of students with at least one disability. They also had a higher than expected proportion of children that did not have English as a first language or where English was not the main language spoken in the home.

It might be expected that academic self-image would be associated with expectations regarding future educational prospects. A large body of international research indicates that parental social class and education are strongly associated with parents' expectations for their children, which, in turn, are strongly related to young people's own educational aspirations (for a review, see Gutman and Akerman, 2008). Parental aspirations have also been found to differ by child gender. More recent studies indicate higher educational expectations for girls than boys in the Irish context as well as in the UK (Banks et al., 2016; Schoon et al., 2007). Young people's own aspirations have been found to reflect their view of themselves and their abilities (Bandura et al., 2001).

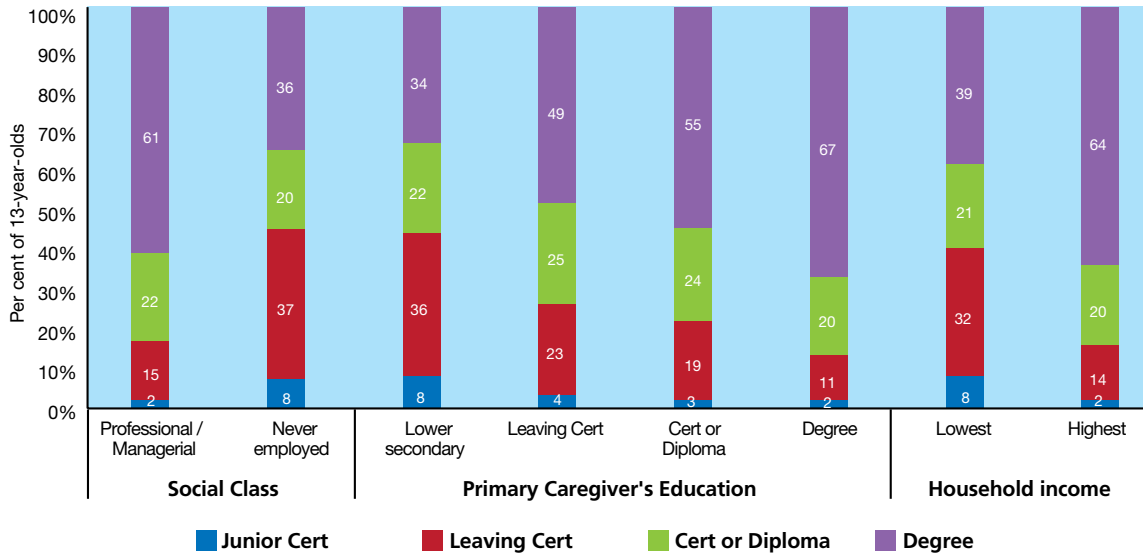
In *Growing Up in Ireland*, Primary Caregivers and 13-year-olds were both asked to indicate the highest qualification they expected the young person to obtain by the time they finished their education. Primary Caregivers had much higher expectations than their children: over three-quarters (79 per cent) of Primary Caregivers expected their son or daughter to obtain a degree or post-graduate degree while this was the case for only half (51 per cent) of 13-year-olds themselves (Figure 5.18). Among the 13-year-olds, 23 per cent expected some other form of post-secondary education, 22 per cent expected to get a Leaving Certificate and just four per cent expected to finish at Junior Certificate level.

Figure 5.18: Expectations regarding highest qualifications young person will achieve, as reported by Primary Caregivers and 13-year-olds



Gender differences in educational expectations were not statistically significant. Thirteen-year-olds with a special educational need (SEN) had much lower educational expectations than their peers; 37 per cent expected to get a degree compared with 54 per cent of those without a SEN. In keeping with previous international research, educational expectations were strongly structured by Primary Caregiver's education; 67 per cent of those whose Primary Caregivers had degrees expected to get a degree themselves, while this was the case for only 34 per cent of those whose Primary Caregivers had lower secondary education (or less) (Figure 5.19). Similarly, the majority (61 per cent) of 13-year-olds from a professional/managerial background expected to get a degree, but only a minority of those from semi/unskilled backgrounds (40 per cent) or those where social class was unassigned (36 per cent) had similar expectations. Educational expectations also reflected household income levels; 35 per cent of those in the lowest income quintile (fifth) expected to reach the Leaving Certificate at most compared with only 16 per cent of 13-year-olds in the highest income quintile. Thirteen-year-olds from one-parent families were less likely to expect to attain a degree than those from two-parent families (42 per cent compared with 53 per cent).

Figure 5.19: Educational expectations (as reported by 13-year-olds) by social class, Primary Caregiver's education and household income



In keeping with previous research, academic self-image and educational expectations were found to be significantly associated. Just 31 per cent of those below average in terms of academic self-concept on the basis of their Pier-Harris intellectual status score expected to go on to higher education compared with two-thirds of those in the 'above average' group.

Attitudes to school at the age of nine were predictive of expectations four years later. The main difference was between those who *never liked school* or their teacher and those who always or sometimes liked their school or teacher (Figure 5.20). At nine years of age, 27 per cent of children always liked school; 66 per cent sometimes liked school and just six per cent never liked school. Just over a third (36 per cent) of those who *never liked school* at the age of nine aspired to go on to a degree when they were older compared with over half of those who had always or sometimes liked school. Educational expectations were even more strongly influenced by prior educational performance. Almost three-quarters (73 per cent) of those in the highest Reading test score quintile at the age of nine expected to go on to higher education compared with less than a third (31 per cent) of those who had been in the lowest Reading quintile. A similar pattern was evident in relation to Mathematics performance.

Figure 5.20: Expectations for higher education (as reported by 13-year-olds) by liking school, liking their teacher, and Reading and Maths performance at the age of 9

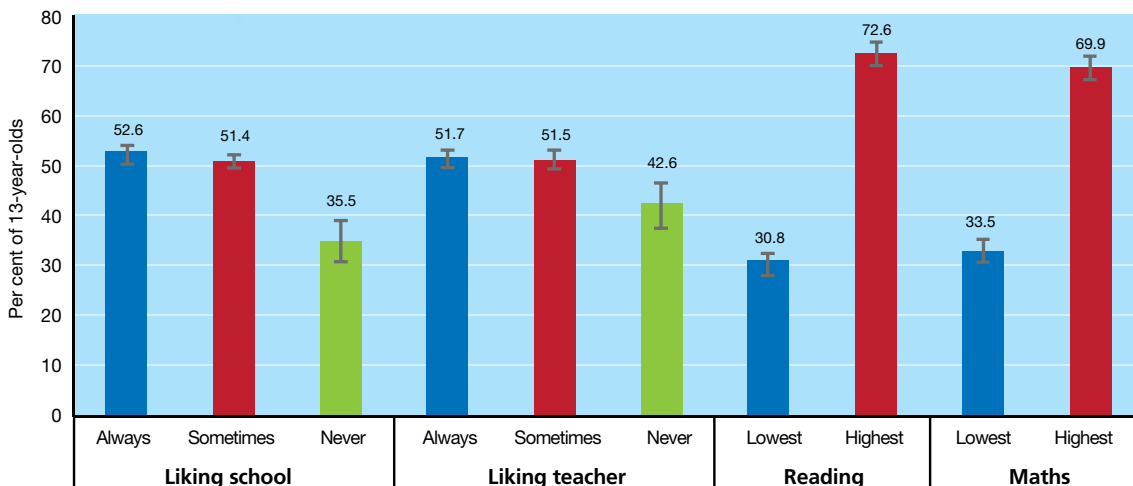


Figure 5.18, above, showed that in aggregate 13-year-olds tended to have lower expectations than their parents. Within families, Primary Caregivers and children were found to have similar expectations in just over half (53 per cent) of cases. In six per cent of cases, 13-year-olds had higher expectations than their main caregiver. However, in a striking 40 per cent of cases, 13-year-olds had lower educational expectations than their Primary Caregiver. This pattern did not vary by gender. However, it did differ significantly by social background (see Table 5.3).²⁴

Across the various measures of family background, it is clear that the Primary Caregiver's expectations are more likely to be higher than those of the 13-year-old. Moreover, 13-year-olds in more advantaged families were more likely to have the same educational expectations as their Primary Caregiver (the percentage 'same' is higher). For instance, expectations are the same in 65 per cent of families where the Primary Caregiver has a degree but only in 37 per cent where the Primary Caregiver has lower second-level education. A similar pattern is seen for social class and income category. The difference is also found for household type (but the gap between one- and two-parent families is smaller). There is an even larger difference by the Reading and Maths performance of the Study Child at age nine; for example, the Primary Caregiver and 13-year-old have the same expectations in only 33 per cent of cases where the Study Child's nine-year Reading score was in the bottom quintile compared to 69 per cent where their Reading score was in the top quintile).

Table 5.3: Difference between 13-year-old's and Primary Caregiver's expectations by family background and cognitive performance at age 9

		Same	Child higher	Parent higher	Unknown
Primary Caregiver's education	Junior Cert or less	37%	12%	44%	7%
	Leaving Certificate	48%	7%	41%	5%
	Certificate/Diploma	55%	5%	38%	3%
	Degree	65%	<5%	30%	3%
Social Class	Professional/Managerial	60%	4%	33%	4%
	Other non-manual/Skilled manual	44%	7%	44%	5%
	Semi/Unskilled manual	44%	9%	40%	7%
	Never worked	38%	9%	46%	7%
Household type	One parent	45%	8%	42%	5%
	Two parents	52%	6%	38%	5%
Household income	Lowest quintile	40%	9%	46%	4%
	Highest quintile	62%	3%	32%	3%
Reading performance at 9	Lowest quintile	33%	13%	48%	6%
	Highest quintile	69%	3%	25%	3%
Maths performance at 9	Lowest quintile	35%	11%	47%	7%
	Highest quintile	67%	4%	26%	4%

Note: 'Unknown' cases are those where either the 13-year-old or the PCG does not report a level. Comparisons were made across four levels of education: lower second level, upper second level, diploma/certificate/apprenticeship and degree or higher.

Where the expectations are different, cases where the Primary Caregiver expectations are higher far outnumber those where the 13-year-old expectations are higher in all of the groups. Again, the rate of the Primary Caregiver having higher expectations than the 13-year-old is greater in more disadvantaged

²⁴ Table 5.3 shows the 'unknown' category for transparency – cases where either the 13-year-old or the PCG does not provide information on academic expectations. This tends to be higher for more disadvantaged families.

families. Thus, 44 per cent of Primary Caregivers with lower secondary education had higher expectations of their 13-year-old than the 13-year-old himself or herself. The figure was lower (30 per cent) in families where the Primary Caregiver had a degree. A greater frequency of parents having higher expectations than the 13-year-old was also found in families where the nine-year-old had lower Reading and Mathematics test scores (Table 5.3).

Some additional analysis showed that the most common type of difference in academic expectations was where the Primary Caregiver expected a degree or higher but the 13-year-old expected to reach Leaving Certificate level or a further education/training diploma or certificate.

5.8 SUMMARY

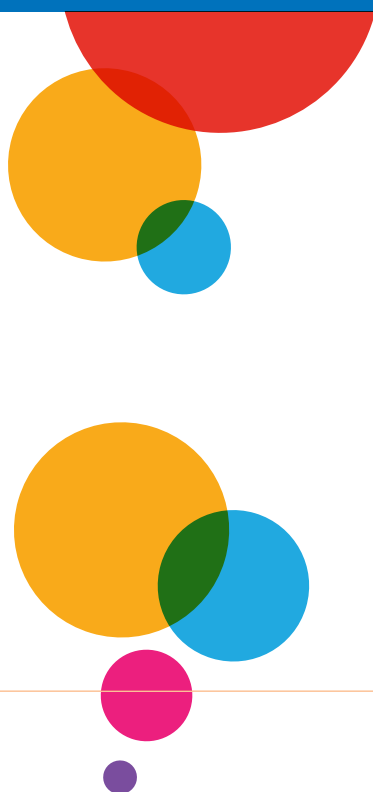
In this chapter, the school experiences of 13-year-olds were explored, drawing mainly on the information they provided in their interviews. Among the main findings were the following:

- Nearly all 13-year-olds were in second-level education by the time of the interview, with 46 per cent in first year and 51 per cent in second year.
- Most 13-year-olds reported a high frequency of positive interactions with teachers (e.g. 70 per cent were often or very often praised for their work) and a low frequency of negative interactions (e.g. only 12 per cent were often or very often given out to for misbehaviour). Praise was more common among girls, those from more advantaged backgrounds (in terms of Primary Caregiver education level and household income level) and among children who did not have a special educational need.
- Most 13-year-olds had positive attitudes to school, with about 60 per cent liking school. Girls were more likely than boys to like school very much, and liking school was also more common among those from more advantaged backgrounds.
- Positive and negative interactions with teachers can have a lasting impact. Those students who had positive interactions with teachers at age nine were more likely to like school at age 13. Similarly, those students who had negative interactions with teachers at age nine were more likely to not like school at age 13. Other attitudes at age nine were also associated with more positive attitudes to school at age 13, including liking school at age nine, liking teachers at nine and liking specific subjects at nine (Reading, Maths and Irish).
- Most 13-year-olds did not find English, Irish, Maths and Science difficult. Only a minority found them 'not interesting'. Of these, Irish was the subject most likely to be found difficult (29 per cent of boys and 24 per cent of girls) and was also the subject most likely to be found 'not interesting' (35 per cent of boys and 29 per cent of girls).
- Most 13-year-olds expected to go beyond second-level education and about one half expected to achieve degree-level qualifications. The expectations of the 13-year-olds varied by family background, with higher proportions expecting a degree in the more advantaged families. Expectations were also higher where the 13-year-old had reported at age nine that they liked school, liked their teacher, liked Reading and liked Maths.
- The Primary Caregivers had much higher expectations, however; 79 per cent expected the young people to complete a degree or higher level of education. The gap in expectations between the 13-year-old and their parents was greatest for those from more disadvantaged family backgrounds.



Chapter 6

PARENTAL PERSPECTIVES ON EDUCATION



6.1 INTRODUCTION

Following from Chapter Five, which examined 13-year-olds' own engagement in education during the move to second-level schooling, this chapter explores the perspectives of parents on this transition. There is quite active school choice in the Irish context. Parents do not necessarily send their children to the nearest second-level school. Therefore, the first section of this chapter looks at the kinds of second-level schools attended by the 13-year-olds. Section 6.2 looks at the extent to which parents felt that their children had successfully adjusted to their new school environment. Section 6.3 focuses on parental views of the transition itself. In Section 6.4, parental involvement in education is examined, including their knowledge of what is happening in the 13-year-old's school work and whether parents help with homework. Section 6.5 focuses on school attendance and Section 6.6 turns to parental educational expectations. The final section briefly summarises the main results from this chapter.

6.2 SCHOOL CHOICE AND SECOND-LEVEL EDUCATION

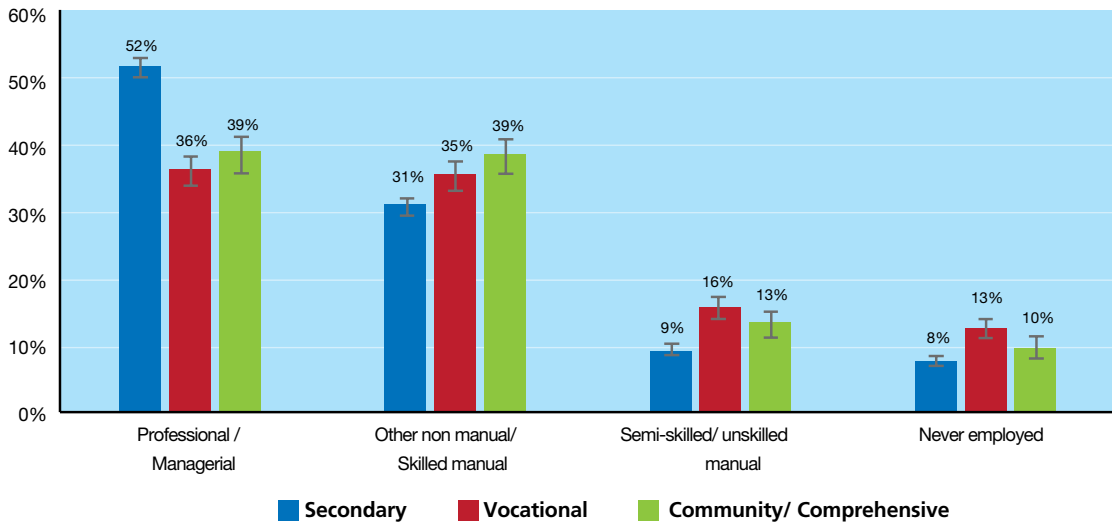
There are three kinds of second-level school in Ireland. Voluntary secondary schools were mainly established by religious (chiefly Catholic) denominations from the 19th century onwards, with a primary focus on providing an academic curriculum as preparation for university entry or for direct access to white-collar occupations. Vocational schools, established in the 1930s, were intended to provide vocationally oriented education geared to the needs of local employers, mainly for working-class males (Coolahan, 2000). Community/comprehensive schools were introduced in the 1960s in an attempt to bridge the gap between the academic secondary and vocational sectors, offering a broad curriculum to all students (Coolahan, 2000). Currently, while the three sectors differ in management and funding arrangements, they operate within a common curriculum and assessment framework. However, the historical origins of the different school sectors mean that they can differ in subject provision and in the social and ability profile of their students (Hannan et al., 1996).

Around half of 13-year-olds do not attend their nearest or most accessible second-level school (Hannan et al., 1996; Smyth et al., 2004). The choice of school has important consequences for the kinds of programmes and subjects to which 13-year-olds have access, the gender and social mix of their peers, and the extent to which they experience the kind of school environment that enhances student outcomes (Smyth, 1999).

Information was collected on the type of second-level school attended by the 13-year-olds in the sample. Over half of the 13-year-olds (57 per cent) were attending a voluntary secondary school, over a quarter (26 per cent) were in a vocational school (including community colleges) while 16 per cent were in a community or comprehensive school.²⁵ Analyses of *Growing Up in Ireland* data indicate that differences persisted in the social class and ability profile of the school sectors. Girls were more likely to attend a single-sex school than boys (44 per cent compared with 38 per cent), in keeping with previous studies which indicated that parents were more likely to favour a single-sex school for their daughters than for their sons (Hannan et al., 1996). Figure 6.1 shows the social class profile of the three school sectors. Secondary schools were found to have a much higher proportion of students from professional/managerial backgrounds (52 per cent) than community/comprehensive (39 per cent) or vocational schools (36 per cent). At the other end of the spectrum, vocational schools contained a higher proportion of students from 'never employed' households (13 per cent compared with eight per cent in secondary schools).

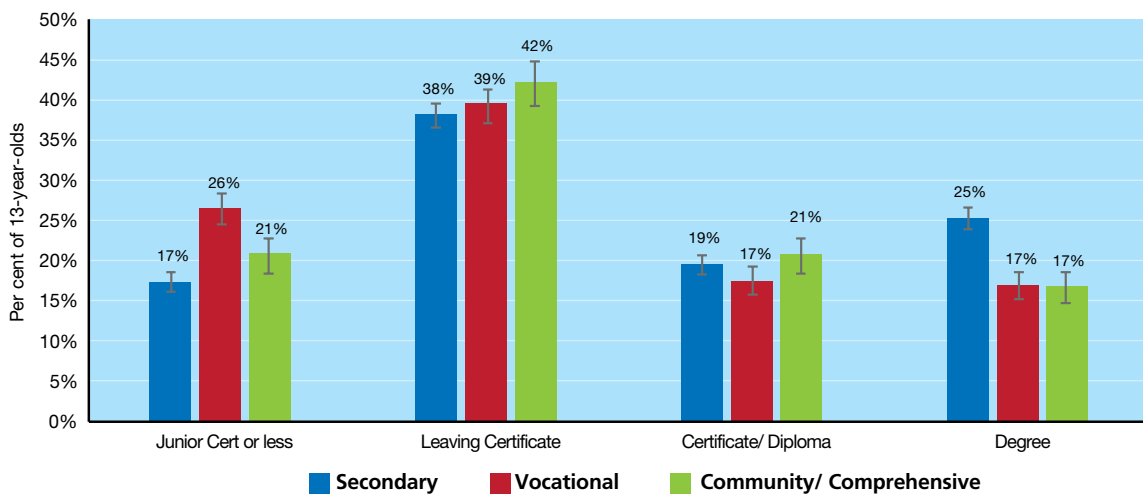
²⁵ These are very close to Department of Education and Skills figures for first-year enrolments in 2012, which show 58 per cent in the voluntary secondary sector, 24 per cent in the vocational sector and 18 per cent in the community/comprehensive sector.

Figure 6.1: Social class profile of 13-year-olds, by school sector



The differential profile across the school sectors was also evident in terms of Primary Caregiver’s education (Figure 6.2). Students attending voluntary secondary schools were much more likely to have graduate Primary Caregivers than those in other school types (25 per cent compared with 17 per cent in vocational and 17 per cent in community/comprehensive schools). Vocational schools were found to have a higher proportion of students whose Primary Caregiver had lower secondary education or less: 26 per cent compared with 21 per cent in community/comprehensive schools and 17 per cent in secondary schools. Similar patterns were evident in relation to household income; 26 per cent of students in vocational schools fall into the lowest income quintile compared with a similar figure for community/comprehensive schools but only 16 per cent in secondary schools. One-parent families were also over-represented in vocational (23 per cent) and community/comprehensive schools (24 per cent) schools compared with secondary schools (16 per cent).

Figure 6.2: Profile of 13-year-olds in school sectors, classified by Primary Caregiver’s education



The survey of second-level principals undertaken as part of the study with the 13-year-olds included topics such as whether the school was over-subscribed (that is, had more applicants than places) and, if so, what criteria were used to determine enrolment. About 60 per cent of the secondary schools surveyed were over-subscribed while this was the case for only 34 per cent of vocational schools and 54 per cent of community/comprehensive schools. The most frequently used enrolment criteria in over-subscribed schools were having other siblings in the school (94 per cent), having attended the feeder primary school (65 per cent), parents having attended the school (53 per cent) and date of application (52 per cent). These kinds of criteria are likely to favour groups with more insider knowledge of the educational system and the resources necessary to access their school of choice (see Smyth et al., 2009 on the Irish context; Allen and West, 2009, on selection into religious schools in England). A recent governmental Act, the *Education (Admission to Schools) Act 2018*, prohibits the requirement that children be baptised in order to be admitted to Catholic schools, whilst seeking to protect the rights of religious minorities and those with special educational needs.²⁶

In summary, analyses of the destinations of 13-year-olds revealed persistent differences in the social and ability profile of students across the school sectors. The vocational sector was found to have an over-representation of more disadvantaged 13-year-olds – those from non-employed households, from low-income families and from families where the Primary Caregiver had a lower level of education. In contrast, those attending voluntary secondary schools were more likely to come from professional or managerial families and to have graduate Primary Caregivers. These differences in profile are likely to have longer-term consequences for 13-year-olds' outcomes because of potential peer effects and the way in which subject provision and teacher expectations may reflect the intake of students to the school.

6.3 PARENTAL PERCEPTIONS OF THE TRANSITION TO SECOND-LEVEL EDUCATION

The transition from primary to secondary education has been recognised as a crucial stage in young people's educational development. A poor transition has been found to have longer-term effects on student attainment and well-being (see, for example, West et al., 2010). Differences between the two sectors in the number of teachers, teaching methods, the number and kind of subjects and school size pose challenges for young people in adjusting to the new school setting (Hargreaves and Galton, 2002; O'Brien, 2004). Lack of curriculum continuity between primary and post-primary education has been found to lead to an interruption or even a decline in academic progress in the early years of secondary education (Hargreaves and Galton, 2002; Smyth et al., 2004; Whitby et al., 2006). The transition often involves disruption to friendship patterns, an issue which is all the more important given the greater salience of peer groups in the lives of adolescents (Guttman and Midgley, 2000). The transition period evokes both excitement and apprehension on the part of students (O'Brien, 2004) but only a minority of students experience sustained difficulties in settling into secondary education (Hargreaves and Galton, 2002; Smyth et al., 2004). Gender differences in the transition process are apparent, with girls taking longer to adjust to secondary education than boys (Smyth et al., 2004; Smyth, 2017). Young people from more disadvantaged backgrounds tend to have more difficulties settling into the new school setting (Anderson et al., 2000; McGee et al., 2003). Those who have had problems with schoolwork at primary level and those with more negative self-image also experience greater transition difficulties (Anderson et al., 2000; McGee et al., 2003). Parental support has been found to facilitate young people's successful transition to secondary education (Anderson et al., 2000). Furthermore, young people who receive a lot of help to settle in from their secondary school report more successful transitions (Evangelou et al., 2003).

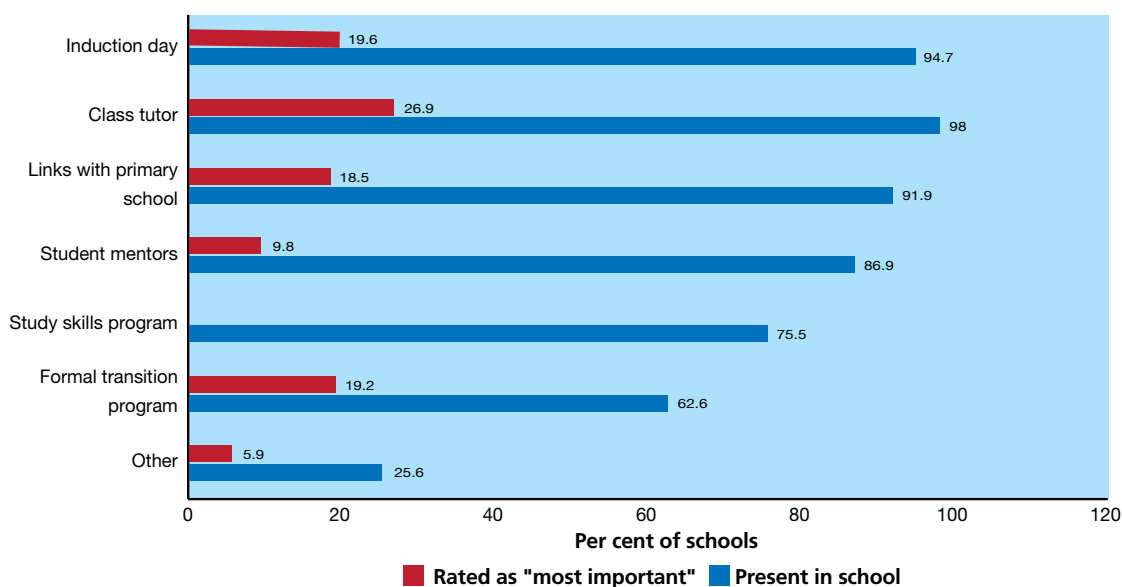
Second-level schools in Ireland vary in their approach to integrating students into the new school setting. In 2001, the dominant approach was an open day, which provided information to students on school policies, the type of subjects they would be taking and the layout of the buildings (Smyth et al., 2004). The majority of second-level schools used the class tutor system, whereby each class group was allocated a tutor to address their pastoral needs, while around half used a student mentor system, whereby older students acted as a 'buddy' for incoming first-years (Smyth et al., 2004).

²⁶ See <https://www.oireachtas.ie/en/bills/bill/2016/58/>.

The survey of principals undertaken for the *Growing Up in Ireland* study showed that almost all second-level schools used an induction (or open) day, a class tutor system and links with primary schools as a way of facilitating transition from primary school (Figure 6.3). The use of student mentors was accepted positively by first-year students and was very common, occurring in 87 per cent of all schools (Smyth et al., 2004). Three-quarters of schools used a study skills programme to help students settle in while 63 per cent used a formal transition programme. The kind of approach used was found to reflect school context and composition. Community/comprehensive schools were somewhat more likely (71 per cent), and voluntary secondary schools somewhat less likely (58 per cent), to use a formal transition programme. Designated disadvantaged schools (DEIS) were also much more likely than other schools to have formal transition programmes (76 per cent compared with 60 per cent of non-disadvantaged schools).²⁷ Vocational schools were somewhat less likely to use student mentors than schools in other sectors (82 per cent compared with 89 per cent of voluntary secondary schools and 88 per cent of community/comprehensive schools). Student mentors were also less commonly employed in disadvantaged schools (84 per cent compared with 88 per cent of non-disadvantaged schools).

When asked about the single most important approach used, over a quarter (27 per cent) of second-level principals indicated the class tutor system. Almost a fifth indicated either the formal transition programme, links with primary schools or the induction day (Figure 6.3). Young people were not asked in *Growing Up in Ireland* about the kinds of supports they found helpful. However, previous research (Smyth et al., 2004) shows that young people place a good deal of value on social networks (friends from the same school, extracurricular activities and older siblings) in helping them settle into second-level education. The majority also mention school induction programmes and school personnel (such as class tutors, subject teachers and student mentors).

Figure 6.3: Use of different approaches to transition across schools, highlighting the single most important approach



Source: Principal's Questionnaires.

Based on responses from the Primary Caregiver, over four-fifths (90 per cent) of the 13-year-olds in the study had attended an open day at his or her new school.²⁸ Thirteen-year-olds attending a disadvantaged (DEIS) school were somewhat more likely to have been to an open day than those in non-DEIS schools (94 per cent compared with 90 per cent). Making the transition alongside friends has been found to help

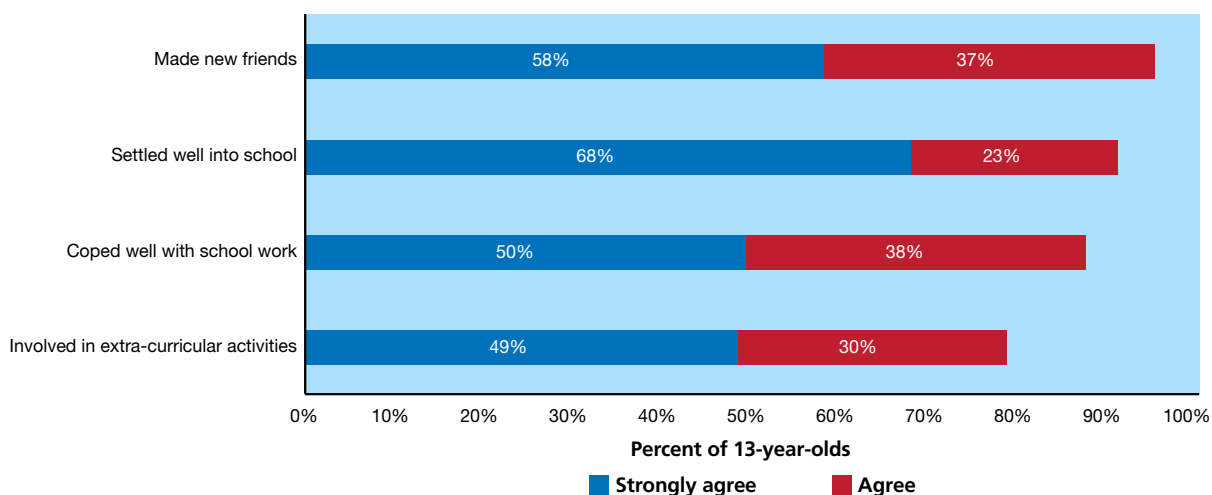
²⁷ DEIS schools are so designated because of the more disadvantaged profile of their pupil intake. They receive additional resources and have a lower teacher-pupil ratio than other schools.

²⁸ The analyses here, therefore, exclude the small number of 13-year-olds still in primary education or attending special schools.

ease the transition process (Evangelou et al., 2008). Thirteen-year-olds were asked about the number of their friends from primary school who were in their new school and/or their new class. Based on responses from the 13-year-olds themselves, over three-quarters (79 per cent) had three or more friends in their new school while only nine per cent did not have any primary school friends in their second-level school. Almost a quarter (24 per cent) of 13-year-olds had no primary school friends in their class while 46 per cent had three or more such friends.

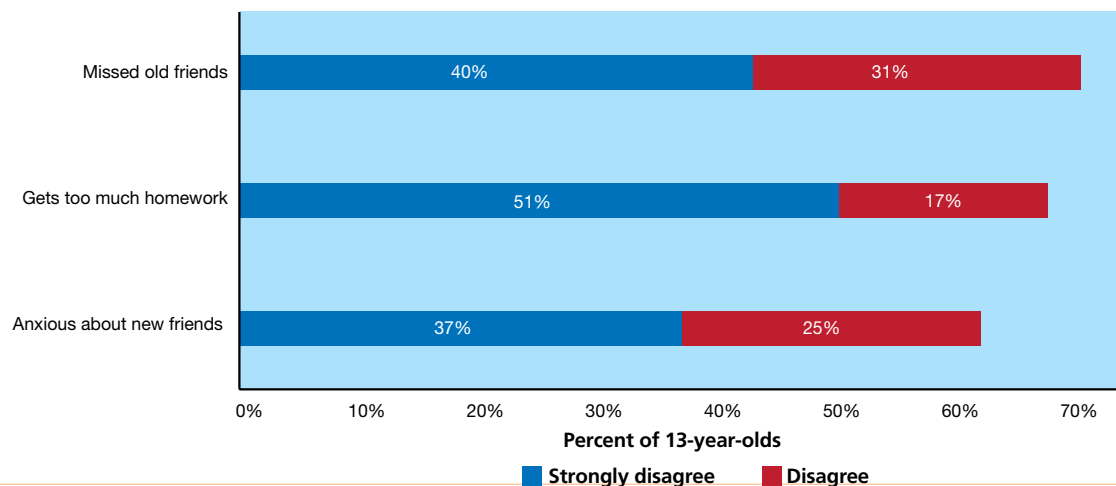
Primary Caregivers were asked a series of questions on the extent to which their child had settled into second-level education. The vast majority (91 per cent) agreed or strongly agreed that their child had settled well into secondary school (Figure 6.4). A similarly high proportion reported that their child had made new friends (95 per cent) and coped well with schoolwork (88 per cent). The proportion who stated that their child was involved in extra-curricular activities in their second-level school was also relatively high at 79 per cent.

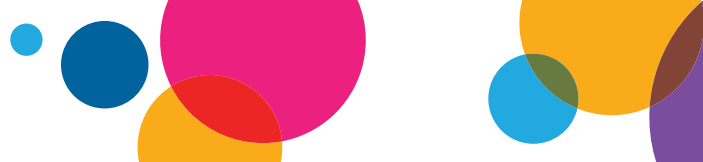
Figure 6.4: Parental perceptions of settling into second-level education (per cent agreeing with positive statements)



In keeping with these patterns, the majority of Primary Caregivers (71 per cent) disagreed (or strongly disagreed) that their child missed their old friends from primary school and 62 per cent disagreed that their child was anxious about making new friends (Figure 6.5). Over two-thirds (68 per cent) disagreed that their child was receiving too much homework in their second-level school.

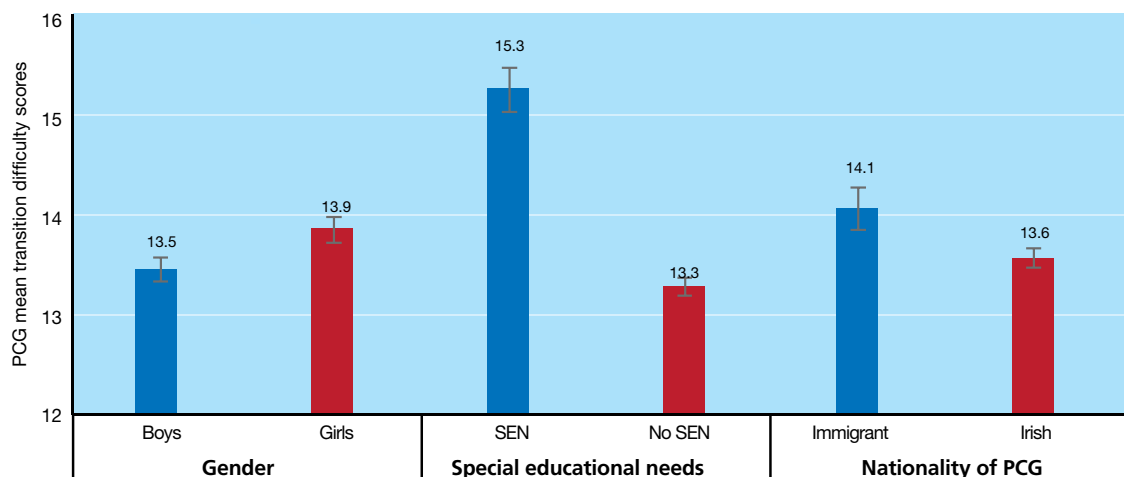
Figure 6.5: Parental perceptions of settling into second-level education (per cent disagreeing with negative statements)





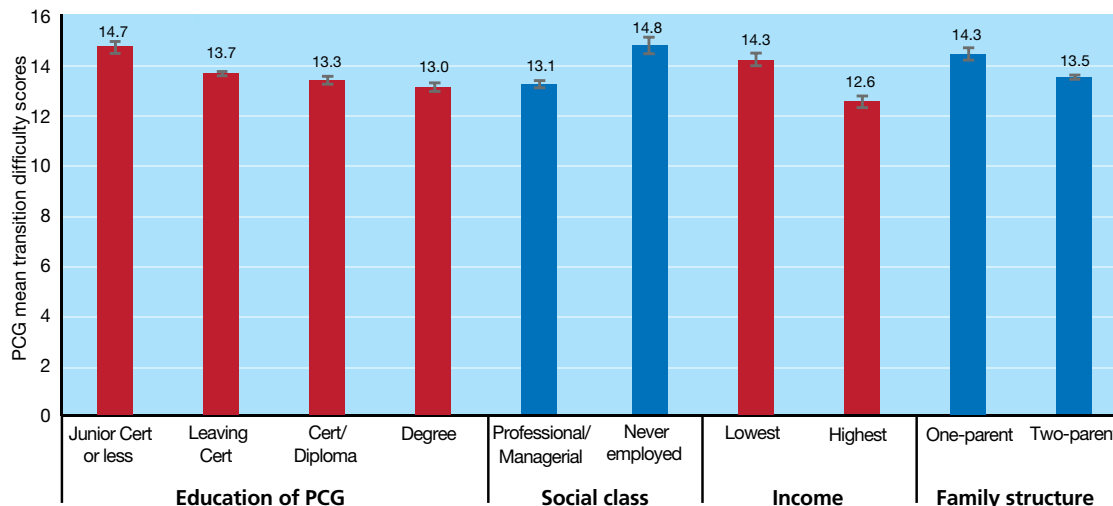
These statements were combined to give an overall scale of perceived transition difficulties, with scores ranging from 6 to 35.²⁹ Transition difficulties were found to be significantly greater among girls than boys, though the scale of the difference is relatively small. Thirteen-year-olds with a special educational need were reported to have greater difficulties in the transition to second-level education than their peers (Figure 6.6). Young people from an immigrant family were found to have significantly greater difficulties over the transition than those from Irish families; as with gender, the differences are not very large.

Figure 6.6: Perceived transition difficulties by characteristics of 13-year-olds



The prevalence of transition difficulties varied significantly by different dimensions of family background (Figure 6.7). Thus, reported difficulties were greatest where Primary Caregivers had lower secondary education (or less) and least among those where the Primary Caregiver was a graduate. Similarly, transition difficulties were most prevalent among those in never employed households and least prevalent in professional/managerial households. A comparable pattern was found by household income, with the highest prevalence of transition difficulties found among the lowest quintile group. On average, Primary Caregivers in one-parent families reported greater transition difficulties for their children than Primary Caregivers in two-parent households.

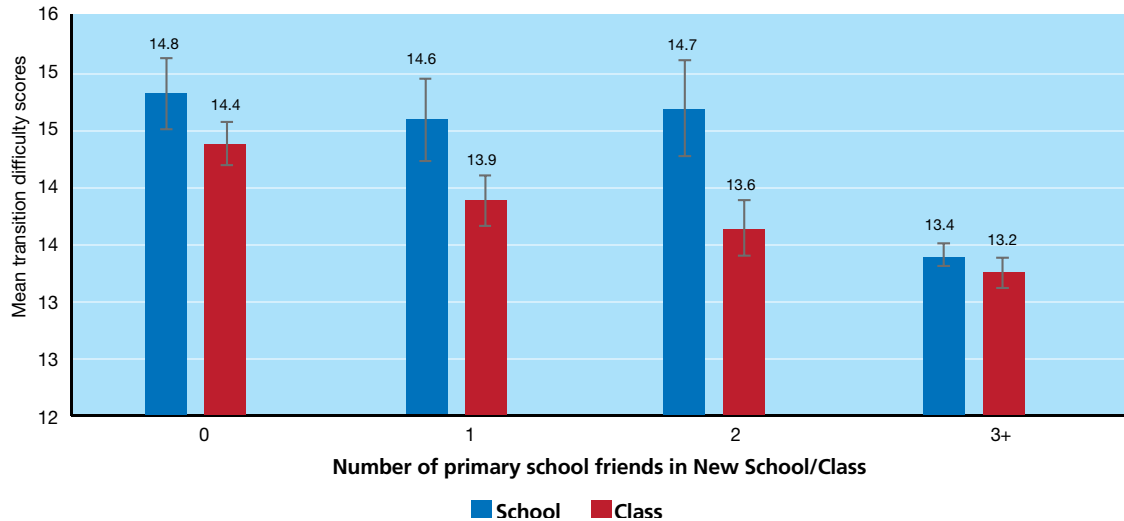
Figure 6.7: Perceived transition difficulties by family background



²⁹ Cronbach's alpha reliability coefficient was 0.59. Alpha can range from 0 to 1, with higher values suggesting that items capture a single underlying construct – transition difficulties, in the present case. There is no agreed threshold as to what alpha level is acceptable. The mean on the scale was 13.7, with a standard deviation of 3.9.

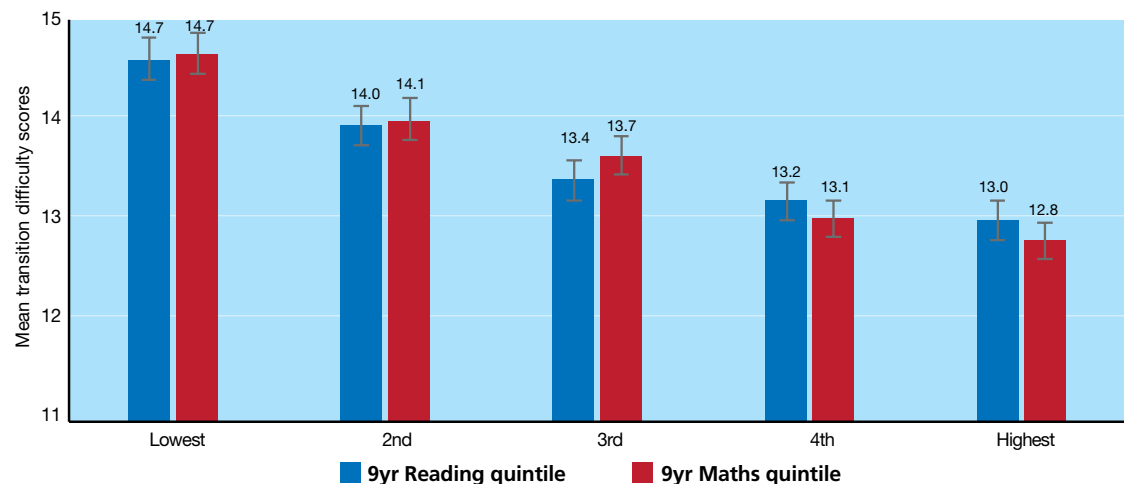
Transition difficulties were not only related to personal characteristics, however. Significant variation was found by key aspects of the transition experience. For instance, the level of transition difficulties was lower among first-years who had attended an open day (13.3 compared to 14.3 among those who had not). Informal relations also made a difference. The greatest transition difficulties were found among those with no primary school friends in their new school or class (Figure 6.8). Those with many primary school friends (three or more) in their school or class had the lowest levels of transition difficulties.

Figure 6.8: Transition difficulties by number of primary school friends in the new school and class



The ease of transition to second-level education was found to be significantly related to primary school experiences. Reading and Maths performance at the age of nine were found to be predictive of the later transition to second-level school. The most transition difficulties were found among those with the lowest test scores (Figure 6.9).

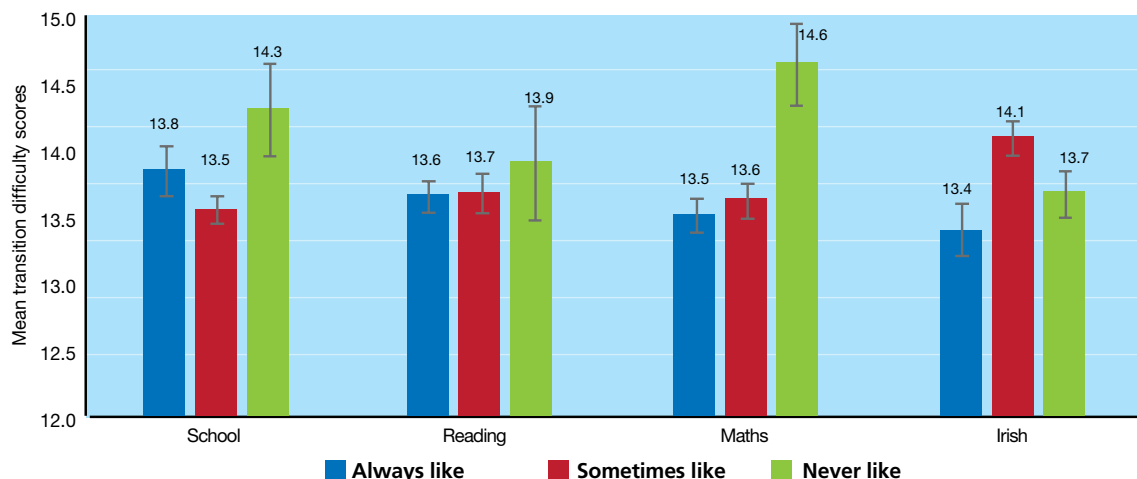
Figure 6.9: Transition difficulties by Reading and Maths test scores (in quintiles) at 9 years of age



Attitudes to school subjects at the age of nine were also predictive of later transition difficulties. There were significantly higher levels of transition difficulty among those who had never liked Maths and those who

had sometimes or always liked it. The average level of transition difficulties was also significantly higher for those who had never liked school and those who sometimes or always liked it. In the case of liking Reading and liking Irish, the differences in the levels of transition difficulties were either not statistically significant (Reading) or not clearly related to the level of liking the subject (Irish – those who sometimes liked the subject had the highest level of difficulty). The gap was largest in the case of Mathematics, pointing to the importance of primary-school Maths attitudes to other educational outcomes at later stages (Figure 6.10).

Figure 6.10: Transition difficulties by attitudes to school and subjects at the age of 9



In this section, the analysis of transition difficulties revealed statistically significant differences by several characteristics of the 13-year-olds and their families: gender, SEN, migration status, family socio-economic status, family type, whether friends had moved to the same new school, and Reading and Maths scores at age nine. The practical importance of these differences is not something that can be answered here, however. It depends on the extent to which transition difficulties are linked to other important outcomes for young people, such as psychological distress, socio-emotional and behavioural difficulties, and performance in school. That is a set of analyses that were beyond the scope of this report. What is evident, however, is that the magnitude of the differences in transition difficulties were quite small (less than 1.0 on the scale that ranged from six to 35, with a standard deviation of 3.9) for several characteristics, including gender, migration status and family type. The largest observed difference was between pupils with special educational needs and those without such needs (2.0). Differences by family socio-economic characteristics (income, social class, Primary Caregiver education), by number of friends from primary school who attended the same second-level school and by Maths and Reading scores at age nine and by attitude to Mathematics at age nine were in the range from 1.0 to 1.9. Smyth (2017) found that young people who experienced greater transition difficulties were more likely to have negative attitudes to school, a more negative academic self-image and poorer school attendance rates. Thus, while small in scale, between-group differences in transition difficulties may play a role in exacerbating socio-economic differences in other educational outcomes.

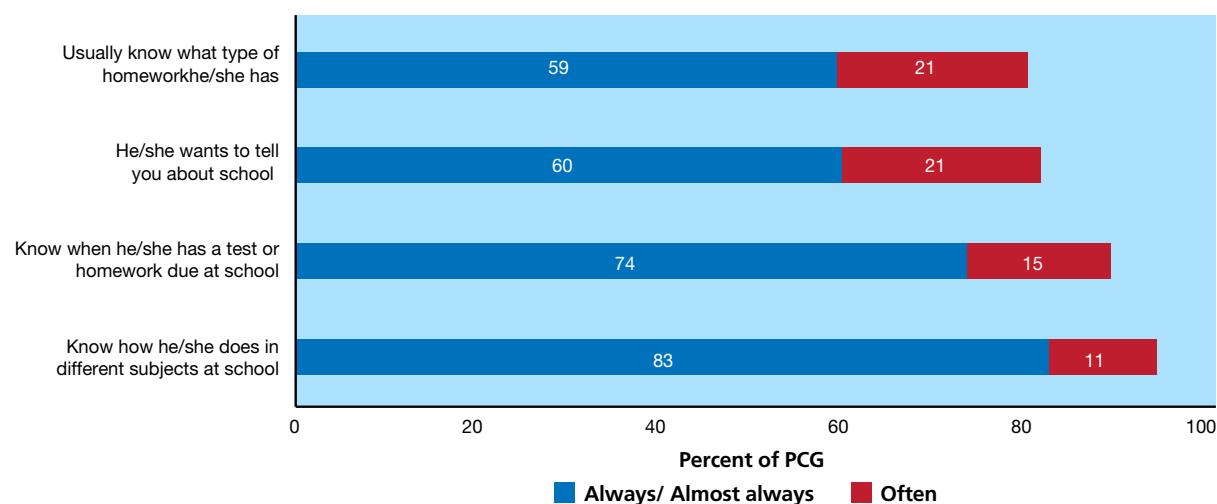
6.4 PARENTAL INVOLVEMENT IN EDUCATION

Parents can be informally involved in their child's education through supporting their learning, providing help with homework and study, discussing what is going on at school, giving advice on educational choices, and providing encouragement in relation to schoolwork (see Desforges, 2003; Byrne and Smyth, 2011).

Parents can also be involved in their child’s education on a more formal basis through participation in school-based activities and involvement in school associations. Although formal involvement is more visible, research has indicated that informal involvement has a greater influence on children’s outcomes (Harris and Goodall, 2007). A number of studies has shown that parental involvement enhances educational outcomes among children and young people across different national contexts, although involvement and educational outcomes have been measured differently in different studies (for a review, see Desforges, 2003). At primary and secondary levels, parents who are more involved in education through attending parent-teacher meetings, monitoring their children’s progress, and helping with homework are more likely to have children who perform well academically (see, for example, Baker and Stevenson, 1986; Epstein, 1985). In general, research shows that the involvement of parents in their child’s education tends to decrease in intensity as children grow older (Williams et al., 2002; Stevenbush and Baker, 1987; Dornbusch and Glasgow, 1996).

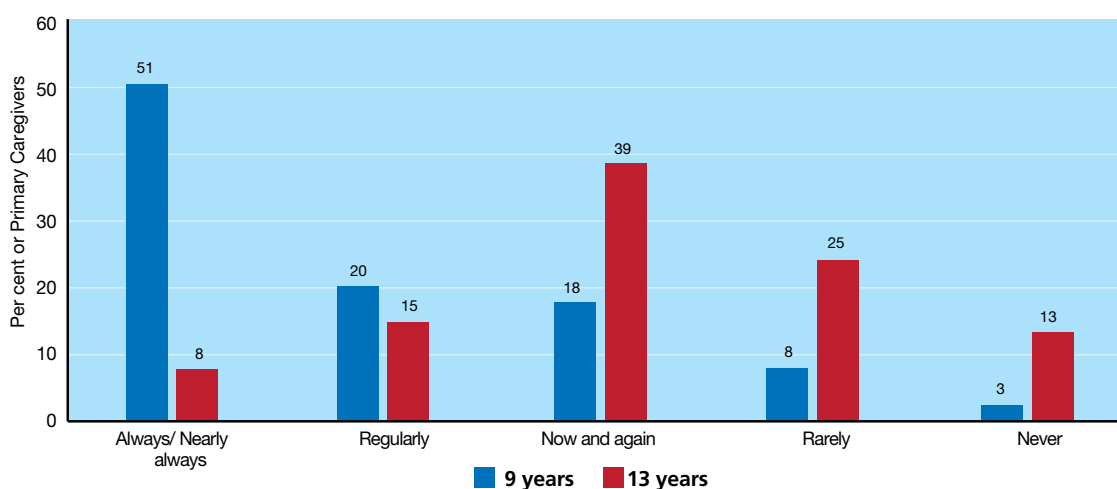
Growing Up in Ireland collected information on how much Primary Caregivers knew about what was going on in their child’s school, on parental involvement in helping with homework, and on the degree of formal contact with the school. The vast majority of Primary Caregivers believed they knew how their child was getting on in their different subjects (94 per cent) and when their child was having a test at school (89 per cent) (Figure 6.11). Four-fifths knew what type of homework their child had and a similar proportion reported that their child wanted to tell them about school. The majority of Primary Caregivers across all social groups (in terms of social class, Primary Caregiver’s education and household structure) knew how their child was getting on at school. The main difference emerged in relation to the child’s gender. Primary Caregivers of daughters were much more likely to report that their child always or almost always wanted to tell them about school than the Primary Caregivers of sons (70 per cent compared with 51 per cent). As a result, Primary Caregivers of daughters had slightly more knowledge about their child’s schooling than Primary Caregivers of sons.

Figure 6.11: Proportion of Primary Caregivers who *always/almost always* or *often* knew what was going on in relation to their child’s education



The majority of parents had at least some involvement with their child’s homework: eight per cent *always/almost always* helped, 15 per cent regularly helped while a further 39 per cent helped their child *now and again*. Figure 6.12 shows that parental involvement in helping with homework decreased markedly as the child got older, most likely reflecting the greater independence of the child and less specialised knowledge about the second-level curriculum among parents (in keeping with patterns found in other countries; see, for example, Williams et al., 2002). This is reflected in the fact that parents who *rarely* or *never* helped with homework attributed this to their child not needing help (79 per cent) or not wanting help (15 per cent).

Figure 6.12: Frequency of Primary Caregivers helping child with homework at 9 years and at 13 years



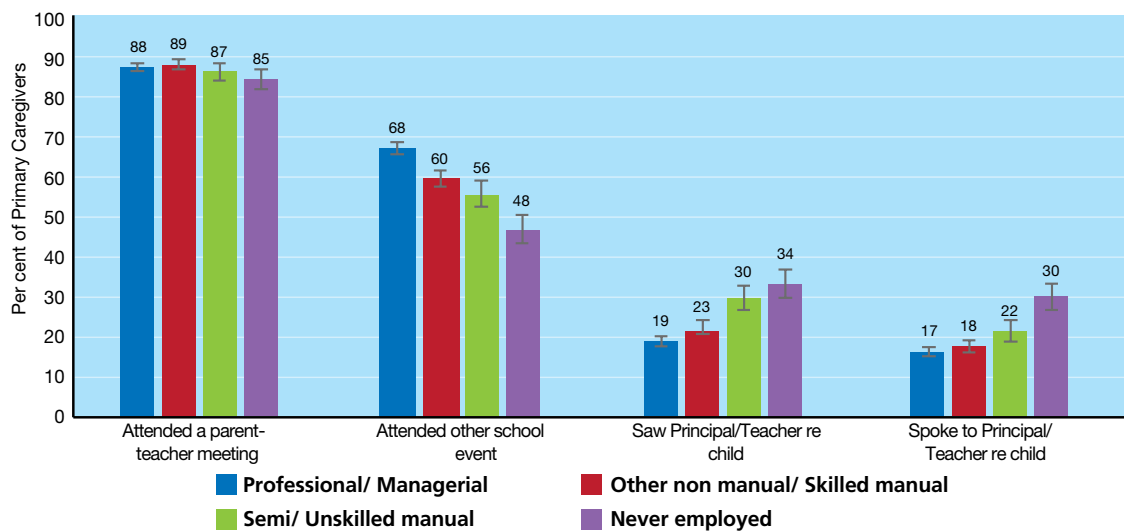
In contrast to the relative lack of variation across social groups for discussion of school-related issues, involvement in helping with homework was more socially differentiated. In just over a fifth of one-parent households and families where the parent(s) had never been employed, the 13-year-olds 'never' received help with homework from their family (Table 6.1). Never helping with homework was more prevalent in families where the Primary Caregiver had lower secondary education (or less) (19 per cent compared with 12 per cent in the case of graduate Primary Caregivers). A similar pattern was found in relation to household income, with the lowest income group less likely to help with homework than the highest income group (17 per cent compared with 11 per cent). Families were more likely to help with homework where the 13-year-old had a special educational need; over a third (35 per cent) did so *always/almost always* or *regularly* compared with a fifth of families whose child did not have a SEN. Although not examined directly, it might be inferred that parents are more likely to help with homework where they feel more equipped to do so (e.g. because of their own level of education) or where the child needs help (e.g. children with SEN).

Table 6.1: Proportion of Primary Caregivers who never helped with homework, by family characteristics

	Per cent <i>never</i> helped
<i>Social class</i>	
Professional/ Managerial	11.5
Non-manual/ Skilled manual	13.0
Semi/ Unskilled manual	15.0
Never employed	22.5
<i>Income quintile</i>	
Lowest	17.3
Highest	10.8
<i>Primary Caregiver's education</i>	
Junior Certificate or less	18.5
Leaving Certificate	13.0
Certificate/Diploma	10.5
Degree	12.1
<i>Household type</i>	
One-parent	21.2
Two-parent	11.6

Primary Caregivers were also asked about their formal contact with the school. The vast majority (88 per cent) had attended a parent-teacher meeting in the last year but fewer (62 per cent) had attended a school concert, play or other event. A minority (23 per cent) had been to see the principal or teacher about their child's behaviour or performance while 19 per cent had spoken to the principal/teacher about these issues over the phone. Attending a parent-teacher meeting was very common across all social groups (Figure 6.13). However, there was a clear social gradient in attendance at other events; 68 per cent of the professional/managerial group attended such events compared with 48 per cent of those who had never been employed. Note that this may be related to the number of events (such as school concerts, plays or sports days) that the school organises. There is no information available on whether these events are more common or more frequent in schools with a more privileged pupil intake.

Figure 6.13: Proportion of Primary Caregivers reporting different forms of contact with their child's school in the last 12 months

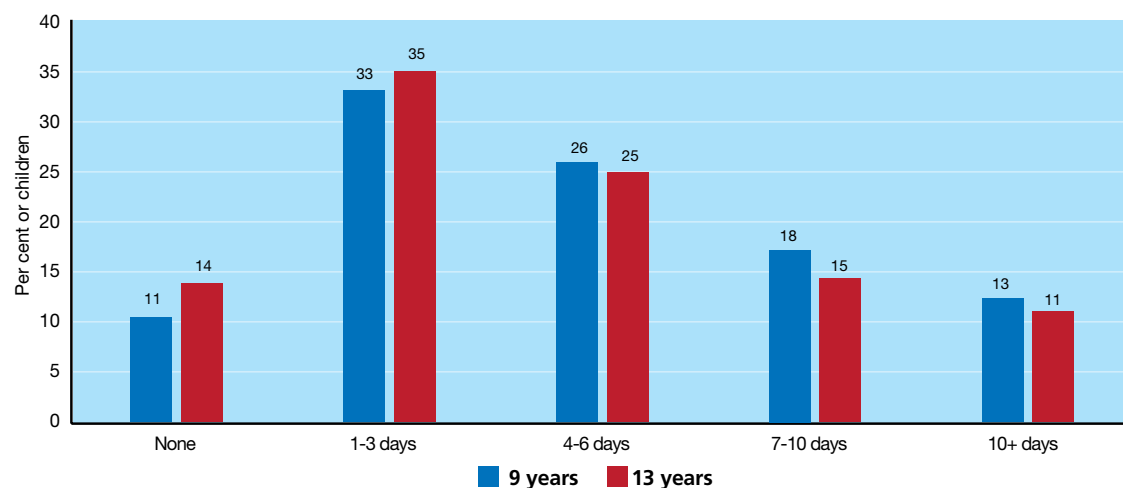


Being in contact with the school (either in person or over the phone) in relation to their child's behaviour/performance was, not surprisingly, related to levels of misbehaviour on the part of the 13-year-old, an issue which is explored in greater detail in Chapter Seven. This kind of contact was much more common for households whose members had never been employed; 34 per cent of this group had seen the principal or teacher in relation to their child's behaviour/performance compared to only 19 per cent of the professional/managerial group. Similar patterns were found in relation to Primary Caregiver's education and household income. Highly educated and high-income families had less direct contact with the school to discuss their children. Primary Caregivers of sons were more likely to have been in contact with the school over their child's behaviour/performance, though the differences were much less than by family characteristics; 25 per cent of those with sons had been to see the principal or teacher compared with 20 per cent of those with daughters. Much greater contact with the school was found in the case of 13-year-olds with special educational needs; 44 per cent of parents whose child had SEN had been to talk to the principal or teacher, compared with 18 per cent of other parents. This pattern was evident even taking account of levels of misbehaviour, suggesting much greater liaison between the school and parents of children with SEN about their needs and progress.

6.5 SCHOOL ATTENDANCE

In addition to formal and informal involvement in their child's education, parents may also play a part in their child's attendance record at school. By the age of 13, young people themselves may have a direct role in school attendance, either through school refusal or through truancy of which their parents are unaware; the issue of truancy is explored further in Chapter Seven below. Primary Caregivers were asked to indicate the number of days their child had been absent from school in the past 12 months. A total of 14 per cent reported that their child had never been absent. The most frequent pattern was one to three days' absence (35 per cent) but 11 per cent reported 10 or more days' absence from school. Levels of absenteeism were roughly comparable to those found at nine years of age, though a slight reduction in the number of days absent was evident (Figure 6.14). When asked the reason for their child's most recent absence, four-fifths indicated health reasons, seven per cent a family vacation and 13 per cent other reasons (including weather, family crisis and bereavement). School refusal or other problems with school accounted for less than two per cent of the most recent school absences.

Figure 6.14: Number of days absent from school in last year at 9 and 13 years of age



Levels of absenteeism were found to vary significantly by family characteristics (Table 6.2). Thirteen-year-olds from professional/managerial backgrounds were most likely to have no days absent from school and least likely to be absent for 10 or more days. Absenteeism levels were highest among those from households where the parent(s) had never been employed. Similar patterns were evident by Primary Caregiver's education and household income. The highest absenteeism levels were found among those whose Primary Caregivers had a lower secondary education (or less) and those in the lowest income group. Thirteen-year-olds from one-parent families had higher absenteeism levels than those from two-parent households. Those with special educational needs were more frequently absent from school than their peers; 17 per cent had been absent for more than 10 days compared to 10 per cent of other students.

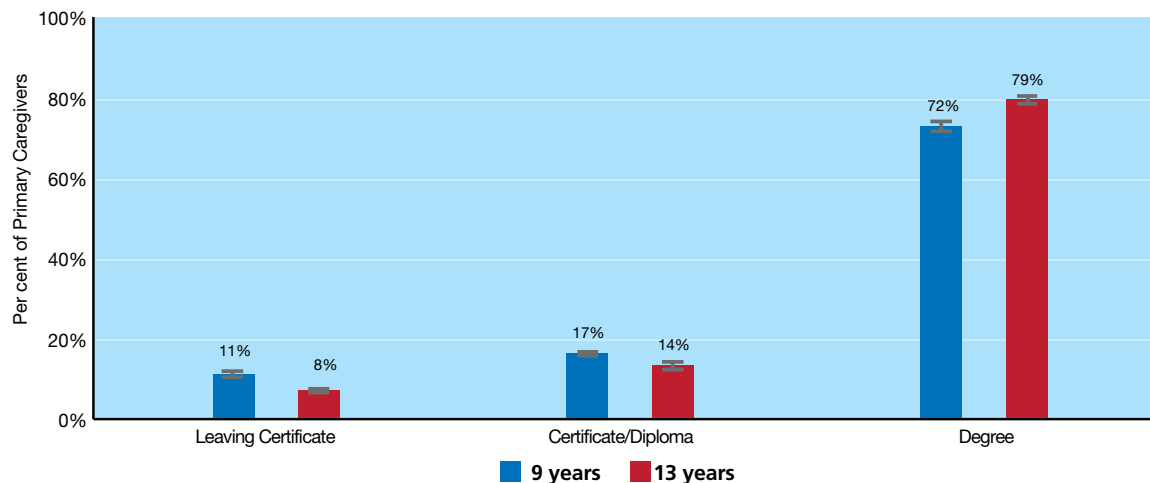
Table 6.2: Absenteeism from school by family characteristics

	None	>10 days
<i>Social class</i>		
Professional/ Managerial	16.2	7.0
Non-manual/ Skilled manual	12.8	11.2
Semi/ Unskilled manual	12.0	15.4
Never employed	11.0	19.7
<i>Income quintile</i>		
Lowest	12.3	14.5
Highest	18.0	5.1
<i>Mother's education</i>		
Junior Certificate or less	10.7	18.2
Leaving Certificate	13.8	8.7
Certificate/Diploma	14.3	9.9
Degree	17.5	7.0
<i>Household type</i>		
One-parent	11.1	15.6
Two-parent	14.7	9.3

6.6 PARENTAL EXPECTATIONS

We saw in the previous chapter (Section 5.7) that parents tended to have high academic expectations for their 13-year-olds and that these were much higher than the expectations held by the young people themselves. For instance, 79 per cent of Primary Caregivers expected their son or daughter to obtain a degree or postgraduate degree while this was the case for only 51 per cent of 13-year-olds themselves. It is also the case that parental expectations had increased since the Study Child was nine years old (Figure 6.15). Primary Caregivers were asked about how far they expected their child to progress in the educational system; a similar question had been asked when their children were nine years of age. Figure 6.15 shows that, at both time-points, Primary Caregivers held high expectations for their children and that the proportion expecting their child to obtain a degree or higher increased from 72 per cent to 79 per cent between the ages of nine and 13.

Figure 6.15: Level of educational expectations among Primary Caregivers at age 9 and at age 13



Note: Less than one per cent of Primary Caregivers at each stage expected the Study Child to complete Junior Certificate or less as their highest level of education.

In the last chapter, it was seen that the expectations of the young people themselves were related to social class, Primary Caregiver's education and household income. The same is true of the expectations of the Primary Caregiver. Expectations were closely related to Primary Caregiver's level of education; 60 per cent of Primary Caregivers with lower secondary education expected their child to go on to a degree while this was the case for almost all (95 per cent) of graduate Primary Caregivers (Table 6.3).

Table 6.3: Proportion of parents who expected a degree or higher qualification for their child, by family characteristics

	Per cent undergraduate/postgraduate degree
<i>Social class</i>	
Professional/ Managerial	88.2
Non-manual/ Skilled manual	73.6
Semi/ Unskilled manual	66.3
Never employed	66.3
<i>Income quintile</i>	
Lowest	67.7
Highest	93.4
<i>Primary Caregiver's education</i>	
Junior Certificate or less	59.8
Leaving Certificate	77.2
Certificate/Diploma	83.0
Degree	94.9
<i>Household type</i>	
One-parent	72.2
Two-parent	80.1

Educational expectations were significantly higher in professional/managerial households and in high-income families. Expectations were somewhat higher in two-parent families, with 80 per cent expecting degree-level qualifications compared with 72 per cent of one-parent families. Primary Caregivers' expectations differed slightly by gender; 81 per cent expected degree-level qualifications for girls compared with 77 per cent for boys. Primary Caregivers of children with SEN held lower expectations; 61 per cent expected degree-level qualifications compared with 83 per cent of other Primary Caregivers. Although educational expectations did vary significantly by family and child characteristics, it is worth noting that the majority of all groups aspired to tertiary qualifications for their child.

6.7 SUMMARY

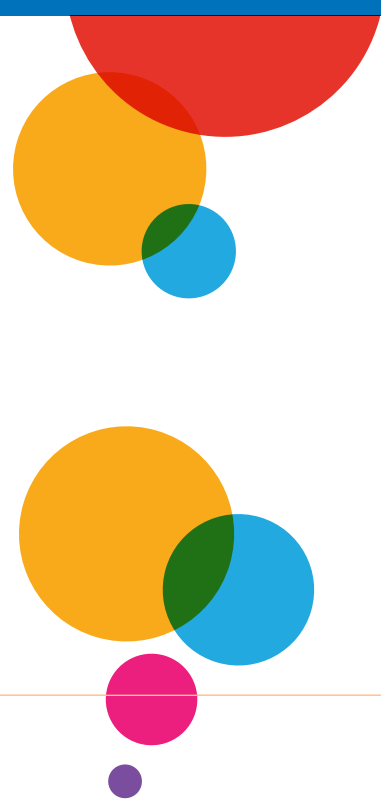
In this chapter, the educational development of the 13-year-old was examined from the perspective of the Primary Caregiver. Among the most important findings were the following:

- Over half of the 13-year-olds were attending voluntary secondary schools, about one-quarter attended vocational schools and about one in six attended a community or comprehensive school. Vocational schools tended to have a more disadvantaged student profile while the most advantaged were the voluntary secondary schools. The latter were most likely to have been oversubscribed, according to information provided by the school principals.
- The vast majority of Primary Caregivers reported that their 13-year-old had settled well into second-level school, made new friends and coped well with schoolwork.
- An overall measure of transition difficulties took account of the Primary Caregivers' reports of the 13-year-old making new friends, settling well into school, coping well with schoolwork and being involved in extra-curricular activities, together with three items that were reverse-coded: missing old friends, getting too much homework and being anxious about new friends. Transition difficulties were somewhat higher among girls than boys and among 13-year-olds from migrant backgrounds, and were markedly higher among 13-year-olds with special educational needs. There were small differences by level of disadvantage, with slightly higher levels of difficulty among children from one-parent families, low-income families, the most disadvantaged social class and where the Primary Caregiver had the lowest level of education. Fewer transition difficulties were found where three or more friends from primary school attended the new second-level school.
- The transition was somewhat easier for 13-year-olds who had higher scores on the Maths and Reading tests at age nine. Those who never liked Maths at age nine had significantly higher levels of transition difficulties.
- The vast majority of Primary Caregivers reported being well informed about their 13-year-old's education, such as the type of homework the 13-year-old had, when they had a test due at school and how they did in different subjects.
- Most parents had some involvement in helping the 13-year-old with their homework but the level of such involvement had dropped appreciably since the Study Child was nine years old. Having no involvement at all with homework was strongly associated with social disadvantage.
- Formal contact with the school, such as attending parent-teacher meetings, was common among Primary Caregivers from all social backgrounds (more than 85 per cent). However, seeing the principal or another teacher about the child was more common among those from more disadvantaged backgrounds.
- Primary Caregivers had high expectations of how far the 13-year-olds would go in terms of their education, with even higher percentages expecting a degree than at age nine (77 compared to 72 per cent). The percentages of Primary Caregivers expecting degree-level education was lower in more disadvantaged groups, but was still two-thirds or more.



Chapter 7

COGNITIVE OUTCOMES AT 13 YEARS



7.1 INTRODUCTION

This chapter moves on from the transition to second level, from the perspectives of the 13-year-olds and their parents, to provide an analysis of their cognitive abilities. As part of the study, the 13-year-olds were asked to complete three cognitive tests: two Drumcondra Reasoning Tests (DRT), one measuring verbal reasoning and one measuring numerical ability, and the British Ability Scales (BAS) Matrices subtest, which measures non-verbal reasoning. These tests were conducted on an individual basis in the respondent's home. The tests provide a measure of the 13-year-old's scholastic aptitude as opposed to a measure of their academic performance.

This chapter begins by explaining the cognitive tests used, as well as outlining some previous research on 13-year-olds' scholastic aptitude and academic performance. The second section looks at variations in 13-year-olds' performance on the tests across different family background characteristics such as Primary Caregiver education, social class, income and family type. The final section examines variations in test scores by the 13-year-old's individual characteristics such as gender, prior performance on similar tests and school engagement. There is a particular focus on gender differences in cognitive test scores as this topic has been the subject of much previous research and discussion.

A small proportion (one per cent) of 13-year-olds were not attending second-level school for various reasons (still in primary school, home-schooled, left school). A further one per cent were attending a special school. Although both groups were given the opportunity to complete the cognitive tests, they have been excluded in the analysis in this chapter as the numbers in each group were too small to support presentation of results.

7.2 COGNITIVE TESTS USED IN GROWING UP IN IRELAND

7.2.1 DRUMCONDRA REASONING TEST

A shortened version of the Drumcondra Reasoning Test (DRT, developed by the Educational Research Centre) was administered to the 13-year-olds in the course of their interview. This contained a subset of questions from the main DRT test, 20 items each on numerical ability and verbal reasoning. As noted above, the DRT is a test of scholastic aptitude, not of school performance or academic achievement. The content of the test is not tied to the school curriculum. It reflects the ability of students to reason with words and numbers.

For each of the DRT tests a so-called logit score³⁰ is used and is presented in the analysis here. The logit score takes into account the difficulty and discrimination of each item that is answered correctly. For ease of interpretation, the logit score was rescaled to have a mean score of 100 and a standard deviation of 15.³¹

7.2.2 BRITISH ABILITY SCALES MATRICES SUBTEST

The 33-item British Ability Scales Matrices Subtest measures the 13-year-old's non-verbal reasoning ability, as well as their ability in visuo-spatial analysis. The analysis of the BAS test presented in this chapter focuses on the total ability score, which was rescaled to have a mean score of 100 and a standard deviation of 15, in the same way as the DRT scores.

7.2.3 ABILITY AND ACHIEVEMENT

It is important to keep in mind that ability (numerical and verbal) and achievement are different constructs. They are referred to in the literature by a variety of terms and are measured in a number of different ways. Cognitive ability is also referred to in the literature as aptitude (Martin and O'Rourke, 1984), intelligence or IQ (Duckworth and Seligman, 2006). It measures scholastic ability that is not linked to the school curriculum. A high scholastic ability does reflect a certain element of skill acquisitions (literacy/numeracy),

³⁰ For each young person the test developers in the Educational Research Centre derived a score for the percentage number of items correct on both verbal reasoning and numerical ability tests, as well as the total test score. In addition, using a two-parameter logistic (2PL) IRT model, they derived a so-called logit score that controls for each item's difficulty and discrimination. The raw test scores and logit scores are obviously highly correlated but, to get the most accurate assessment of the young person's cognitive ability, the logit scores should be used in analysis. For ease of interpretation, the logit score was rescaled to have a mean score of 100 and a standard deviation of 15.

³¹ This rescaling means that relative performance cannot be interpreted across the three domains.

and, as such, is not independent of the environment in which the young person is situated. However, the ability in question is not specifically linked to the school curriculum. Academic achievement tests, on the other hand, measure performance and can be strongly influenced by factors such as “school attendance and engagement; pupil’s personality traits; motivation and effort; the extent of parental support; and the provision of appropriate learning experiences, teaching quality, school ethos, and structure” (Deary, Strand, Smith and Fernandes, 2007).

Tests of cognitive ability were initially developed to predict individual differences in educational outcomes. There is general agreement that the two are moderately to strongly correlated (Deary et al., 2007). A large, longitudinal study of over 70,000 English students found a correlation of 0.81 between cognitive ability tests at age 11 and national school examinations at age 16, across 25 individual subjects (Deary et al., 2007). In the Irish context, performance in the verbal and numerical reasoning components of the Differential Aptitude Test was found to be highly predictive of Junior Certificate grades (Hannan et al., 1994). Although the 13-year-old’s results on the Drumcondra Reasoning Tests (DRT) may be correlated with their academic achievement or school performance, it is important to emphasise the conceptual difference between the cognitive measure of ability captured by the DRT and a measure of school achievement or performance.

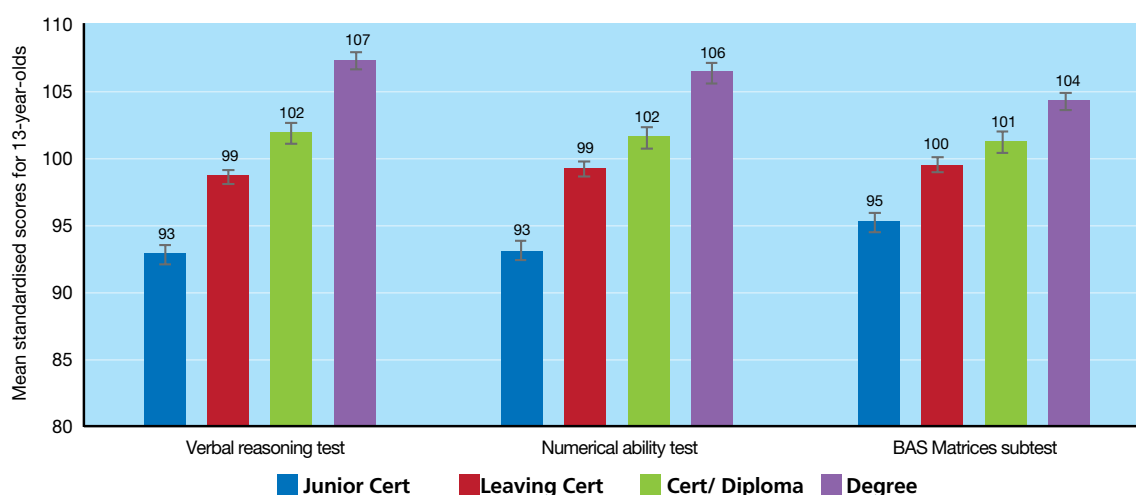
7.3 VARIATIONS IN COGNITIVE ABILITY SCORES BY FAMILY CHARACTERISTICS

This section discusses variations in cognitive test scores by the 13-year-old’s family background characteristics.

7.3.1 PRIMARY CAREGIVER’S EDUCATION

There was a very strong relationship between a 13-year-old’s cognitive test scores and their Primary Caregiver’s highest level of educational attainment. Thirteen-year-olds whose Primary Caregiver (principally their mother) had higher levels of education scored higher on all three cognitive tests. For example, 13-year-olds whose main caregiver had degree-level education had an average score of 107 on the DRT Verbal Reasoning test (Figure 7.1). This is significantly higher than for 13-year-olds whose parent had lower levels of education.³² In contrast, 13-year-olds whose main caregiver had left school with a Junior Certificate or less had an average score of 93.

Figure 7.1: Variation in cognitive scores at 13 by Primary Caregiver education



7.3.2 FAMILY SOCIAL CLASS, INCOME AND IMMIGRANT STATUS

Similar relationships were evident between a 13-year-old’s performance on the cognitive tests and family social class and income (Figures 7.2 and 7.3). Those from higher social class groups (professional/ managerial) scored much higher than those from other categories across both the DRT tests and the BAS Matrices

³² As noted, all test scores were rescaled to have a mean of 100 and a standard deviation of 15.

test. Similarly, the highest scores were found in the highest income quintiles for all tests. No significant relationship was found between family immigrant status (measured as both parents born outside Ireland) and any of the cognitive tests (not shown in the chart).

Figure 7.2: Variation in cognitive scores at 13 by family social class

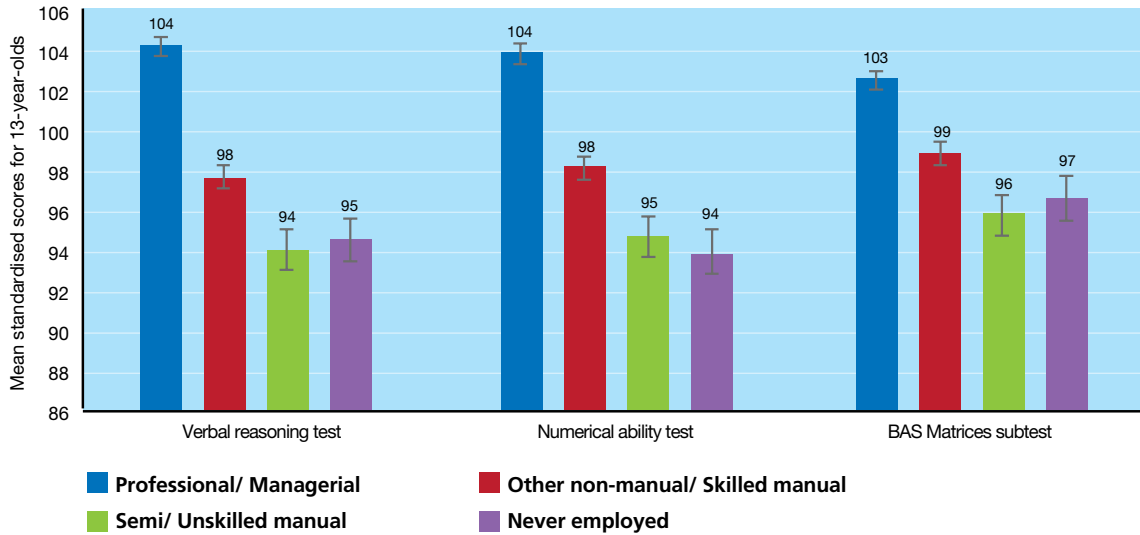
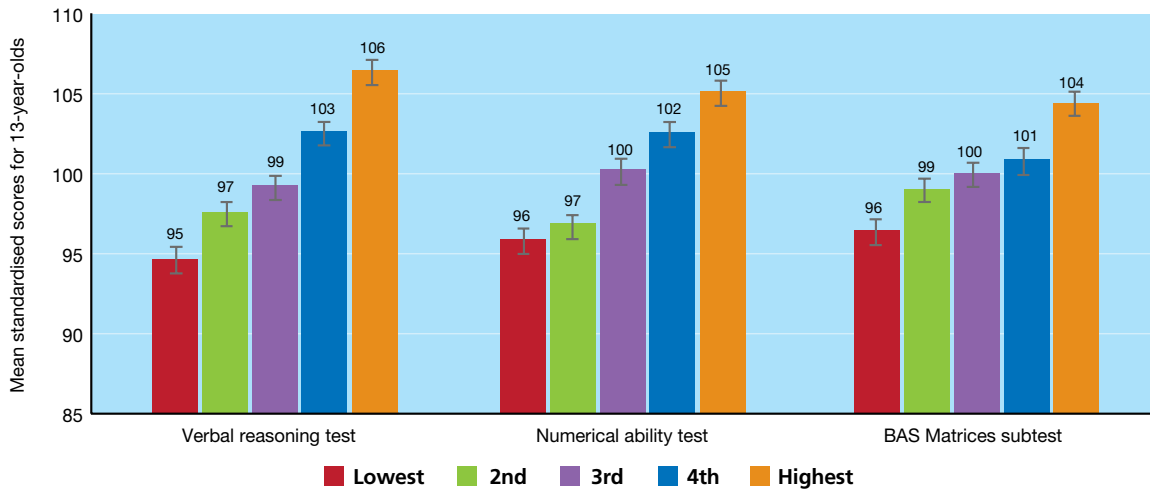


Figure 7.3: Variation in cognitive scores at 13 by family income quintile

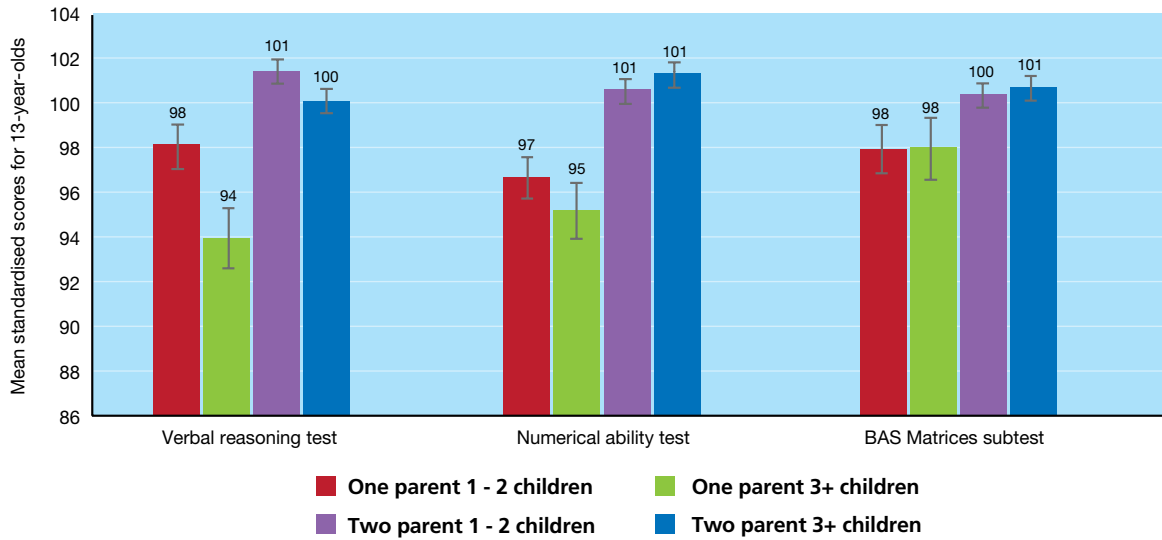


7.3.3 FAMILY TYPE

Striking differences were also evident in terms of family type (Figure 7.4), especially for the DRT tests. Thirteen-year-olds from one-parent families were more likely to have lower average scores on both DRT tests, particularly those from larger one-parent families (with three or more children) on the Verbal Reasoning test.



Figure 7.4: Variation in cognitive scores at 13 by family type



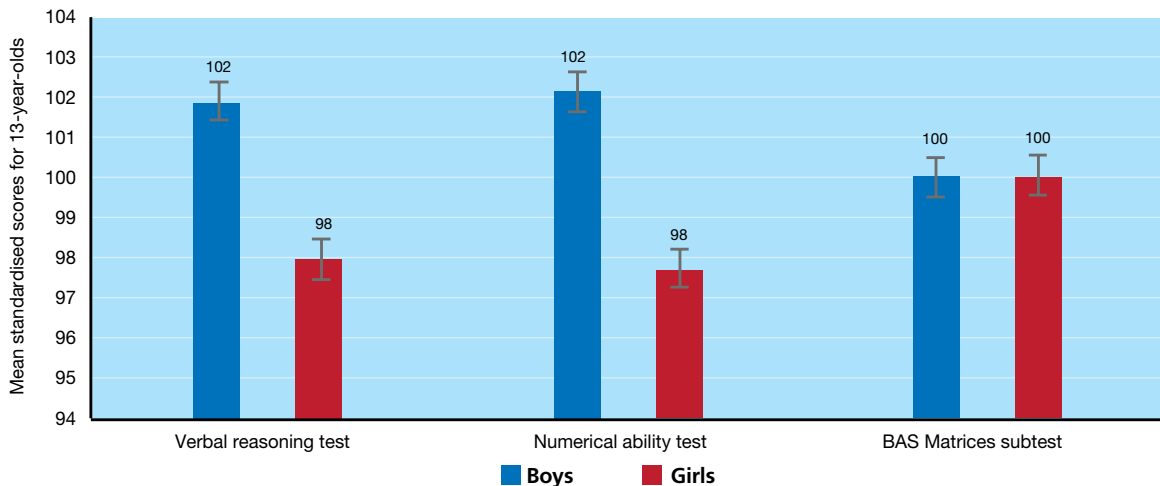
7.4 VARIATIONS IN COGNITIVE ABILITY SCORES BY CHARACTERISTICS OF 13-YEAR-OLD

Previous research has highlighted a number of individual child characteristics that may be related to their cognitive test scores. A selection of such characteristics are discussed in this section: gender, Special Educational Needs (SEN), prior achievement, academic self-concept, engagement with school and engagement with subjects. As some of these characteristics may have a long-term impact on achievement, this section examines the relationship not only between these characteristics (self-concept and engagement) and outcomes at age 13, but also the relationship between these characteristics at age nine and outcomes at age 13. This section focuses on school-related attitudes and behaviours, but it is worth noting that cognitive ability scores also vary by out-of-school activities, including reading and involvement in music or drama clubs (see Smyth, 2017).

7.4.1 GENDER

Figure 7.5 summarises the gender differences in cognitive test scores. In both tests, boys scored significantly higher than girls – an average of 102 and 98 respectively on the Verbal Reasoning and Numerical Ability tests. In contrast, there was no gender difference for the BAS Matrices test.

Figure 7.5: Cognitive performance on test scores by gender of 13-year-olds



This result may initially seem somewhat counter-intuitive, especially given some of the findings reported in Chapter Five, which indicated that girls were more likely to have more positive interactions with their teachers, have lower levels of misbehaviour, like school, spend longer on their homework and have slightly higher educational expectations. Girls also found English and Irish less difficult and more interesting than boys, and they were more likely to spend more time reading for pleasure, as was seen in Chapter Four. However, a number of factors should be borne in mind when considering the gender differences found in the cognitive test scores.

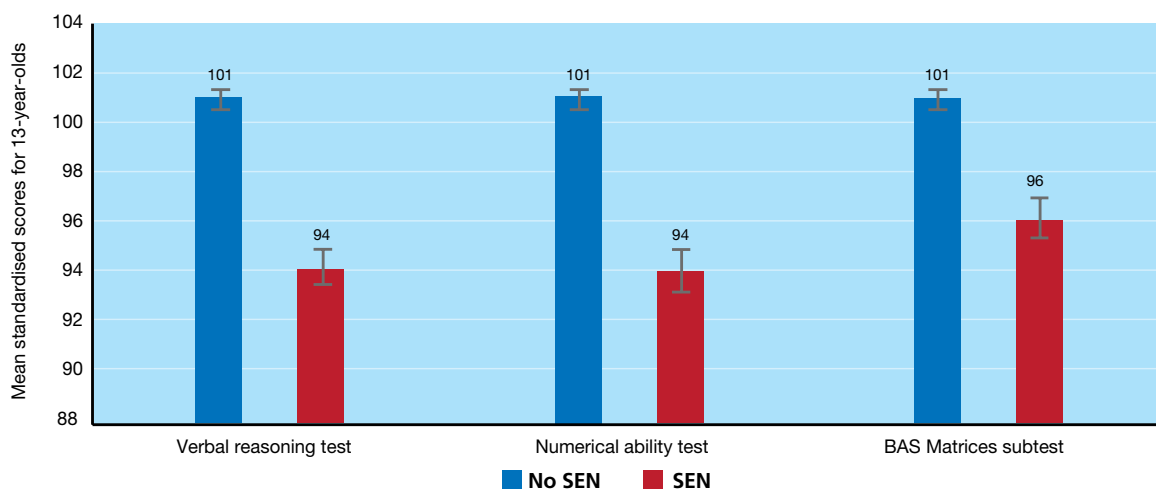
First, although males scored higher than females, the magnitude of this difference (although significant) is quite small (four points), as illustrated in Figure 7.5 above and when compared to the difference associated with the Primary Caregiver’s level of education (almost 15 points or one standard deviation), as seen in Figure 7.1, earlier. The Educational Research Centre found a similar gender difference in favour of males in administering the test to first- and second-years in a representative sample of 19 post-primary schools in 2012/2013.³³

Secondly, the nature of the tests themselves is likely to play a role. Previous research has shown that males outperform females on multiple-choice tests (like the ones administered in this study) compared with free text examinations, in relation to both mathematics and languages (Bolger and Kellaghan, 1990). Results reported by Martin and O’Rourke (1984) showed that male students outperformed females on measures of verbal reasoning and numerical ability that were part of the Differential Aptitude Test (DAT), the precursor of the Drumcondra Reasoning Test, with the gender difference tending to increase as students progressed from lower- to upper-secondary schooling. In contrast, it is females who tend to achieve higher grades in state examinations that do not rely on multiple choice formats (see, for example, Elwood and Carlisle, 2003).

7.4.2 SPECIAL EDUCATIONAL NEEDS

There was evidence of a strong relationship between the presence of a Special Educational Need (SEN) and cognitive test scores. For all three tests, 13-year-olds who were reported as having some form of SEN had significantly lower test scores than their peers (Figure 7.6), although the differences are not as large as might be expected. This is because the definition of SEN includes a wide range of challenges, from intellectual disability to learning disabilities (such as dyslexia) to physical disabilities that have less impact on learning (Banks et al., 2016).

Figure 7.6: Test scores by Special Educational Need at 13 years



³³ The authors are grateful to the ERC for access to these findings.

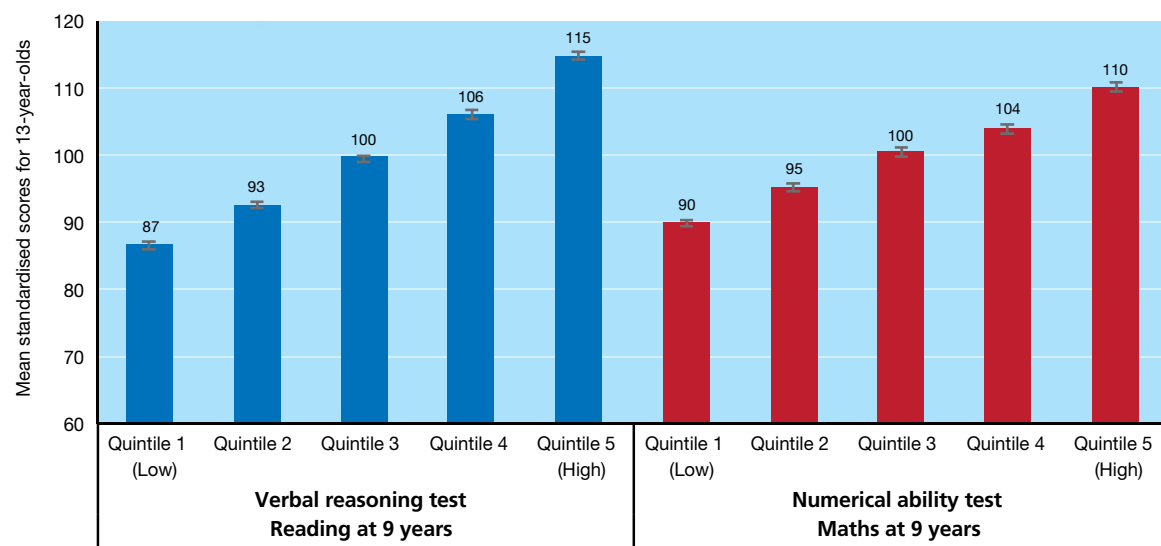
7.4.3 PERFORMANCE ON TESTS AT 9 AND 13 YEARS

Academic performance at 9 years

The 13-year-olds in *Growing Up in Ireland* completed the Drumcondra Reading and Maths achievement tests (which are based on the Irish Primary School Curriculum) in the first wave of data collection when they were nine years old. There was a moderately strong relationship between their achievement test scores at nine years and their DRT cognitive test scores at 13 years. The correlation between their Drumcondra Reading test score at nine years of age and their DRT Verbal Reasoning test at 13 years was $r = .665$. The relationship between their Drumcondra Maths test score at nine years and their DRT Numerical Ability test score at 13 years was $r = .562$.

While the correlations suggest a moderately strong relationship, the meaning is not intuitive. To give an indication of the extent of change in cognitive scores, the results are presented in terms of score categories at each stage. Figure 7.7 summarises the mean test scores at 13 years by the quintile of corresponding test score at nine years. This shows, for example, that 13-year-olds who scored in the lowest 20 per cent in the Reading test at nine years had an average score of 87 in the Verbal Reasoning test at 13 years. This compares with an average score of 115 for those who were in the top quintile at nine years.

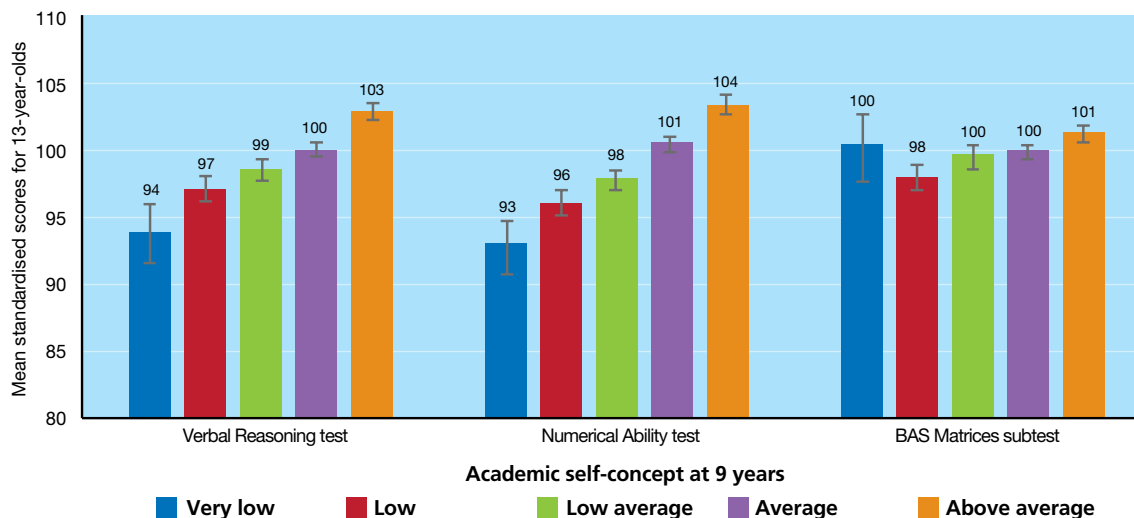
Figure 7.7: Test scores at age 13 by test performance at 9 years



Academic self-concept at 9 and 13 years

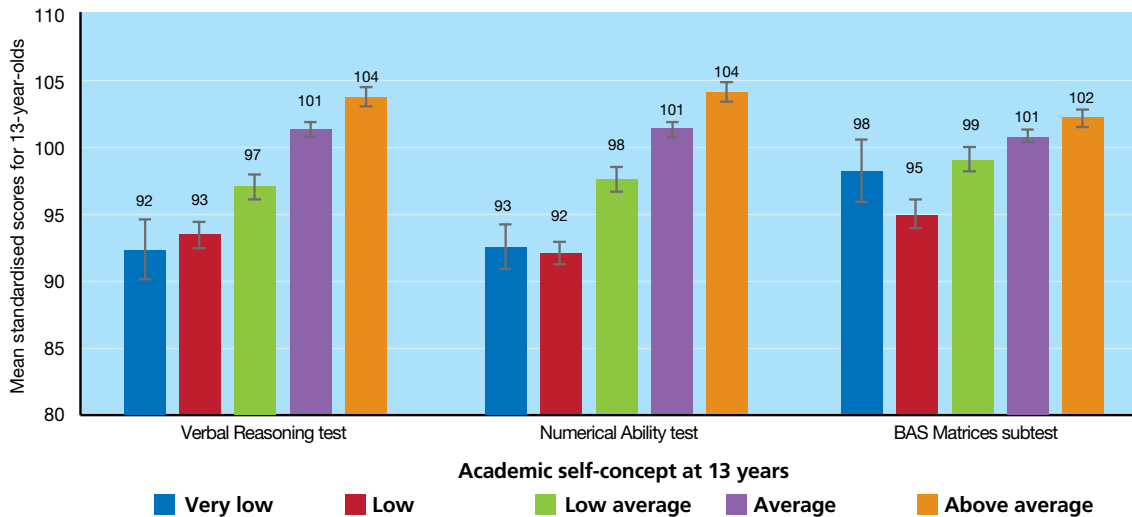
Chapter Five discussed the reciprocal relationship of academic self-image and academic performance. Students who perform well in past tests are likely to have a more positive academic self-image, while a positive academic self-image is likely to have a positive influence on later achievement (Marsh and Craven, 2006). Figure 7.8 shows the relationship between academic self-image at age nine (as measured by the Piers-Harris Intellectual Status Subscale) and performance on the DRT and BAS cognitive tests at age 13. Both the Verbal Reasoning and the Numerical Ability tests show a clear, strong, positive relationship with self-image; children with a more positive self-image at age nine score higher on the cognitive tests at age 13. Performance on the British Abilities Scale Matrices test does not seem to be related in the same way to past academic self-image.

Figure 7.8: Cognitive test scores at 13 years of age by academic self-concept at 9 years (Piers-Harris Intellectual Status subscale)



The same measure of academic self-concept from the Piers-Harris subscale was measured at age 13 and the same relationship with cognitive tests scores was evident (Figure 7.9).

Figure 7.9: Test scores at 13 years of age by academic self-concept at 13 years (Piers-Harris Intellectual Status subscale)

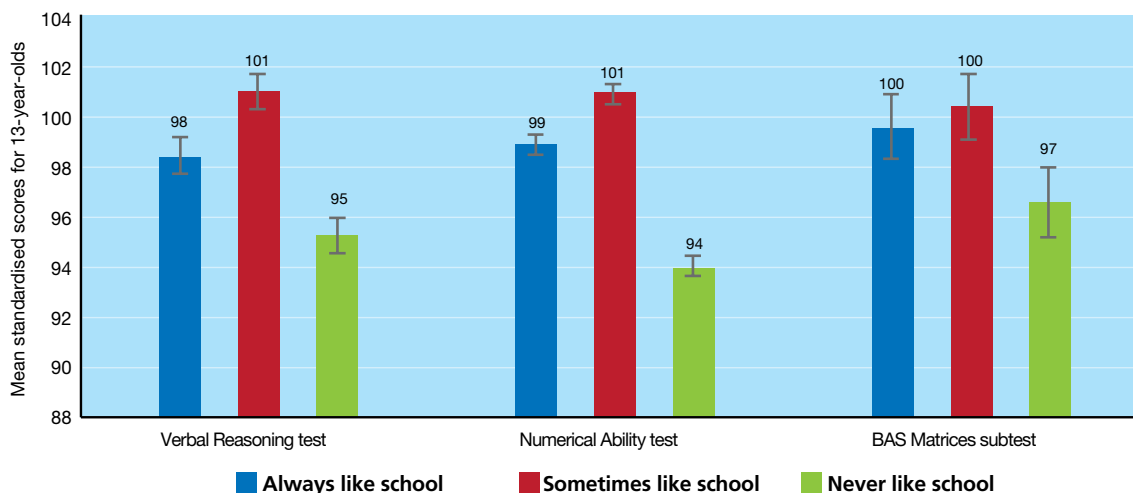


7.4.4 ENGAGEMENT WITH SCHOOL

Previous research has shown that children who are positively engaged with school will perform better academically (Smyth et al., 2010). One measure of emotional engagement with school was how much the 13-year-old said they liked school. Information on this was recorded in *Growing Up in Ireland* at both nine and 13 years of age. Figure 7.10 shows the relationship between academic engagement at age nine and performance on the three reasoning tests at 13. For each of the tests, the 13-year-olds who had reported at age nine that they *never liked* school scored significantly lower in the cognitive tests at 13 years.

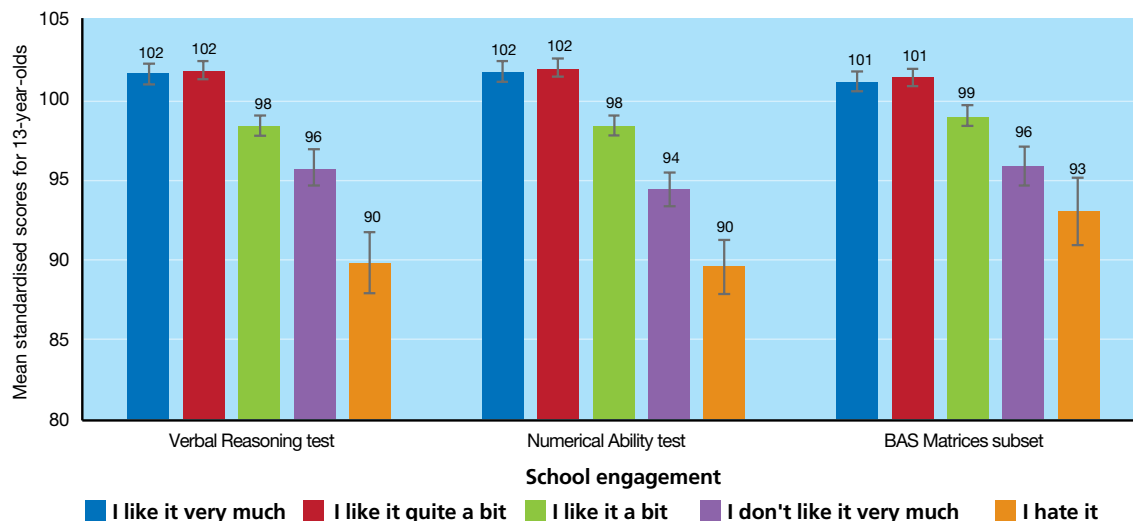


Figure 7.10: Cognitive test scores at age 13 by school engagement at 9 years



The same relationship is apparent between how the 13-year-olds currently liked school in general and their cognitive test scores. Figure 7.11 shows that there was also a strong relationship between this measure of academic engagement and test scores, particularly for the DRT scores. The 13-year-olds who reported that they *hated* school were scoring well below those children who had a more positive view of school in general.

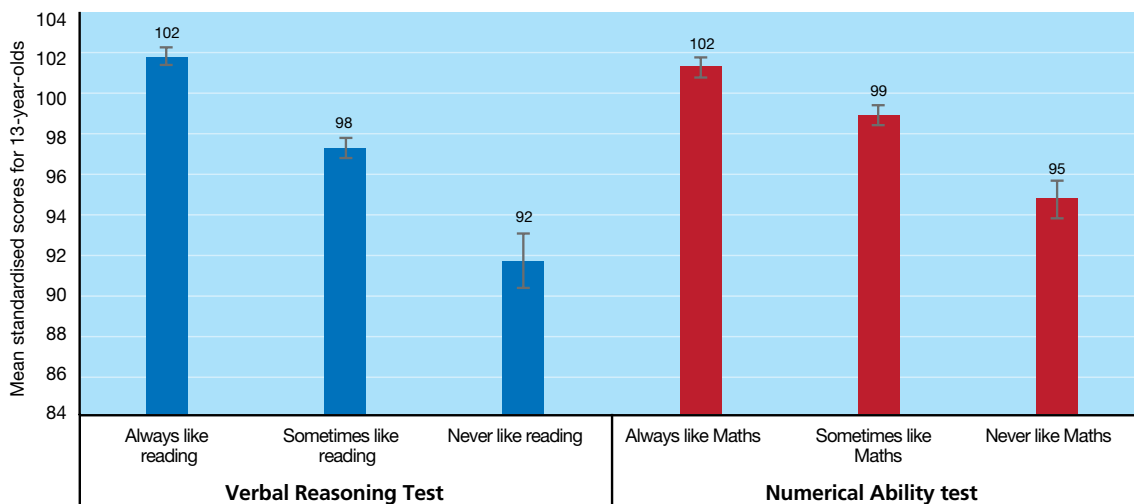
Figure 7.11: Cognitive test scores at 13 years by school engagement at that age



7.4.5 ENGAGEMENT WITH SPECIFIC SUBJECTS

At age nine students were asked how they felt about specific subjects, including Reading and Maths. There was an interesting relationship between this subject-specific engagement at nine years and test scores at 13 years of age. Figure 7.12 shows that those who *always liked* Reading at nine years of age scored much higher in the Verbal Reasoning test at age 13 than those who did not have as favourable a view of Reading. The same pattern was true for the relationship between liking Maths at nine years and Numerical Ability test scores at 13 years.

Figure 7.12: Verbal Reasoning and Numerical Ability test scores at 13 years by engagement with specific subjects at 9 years

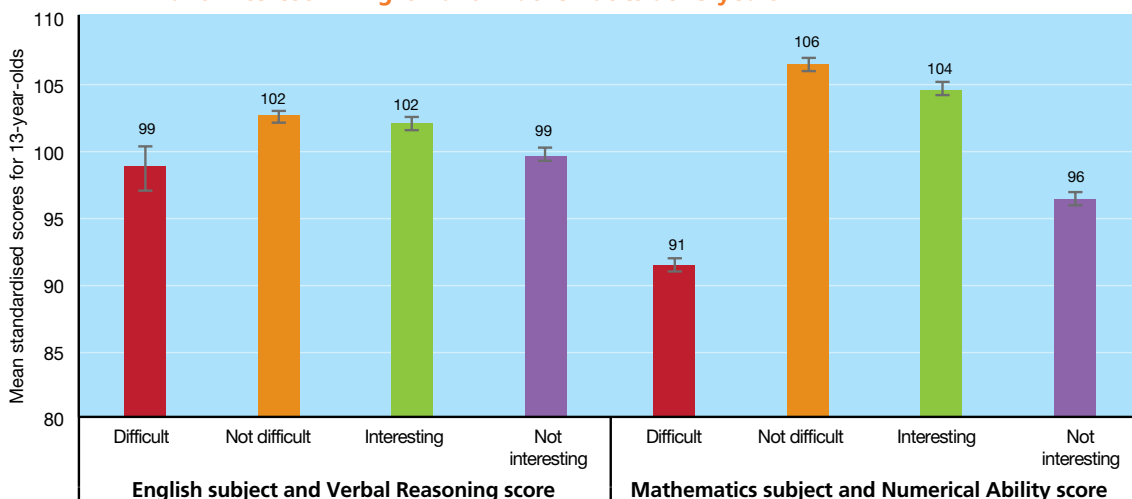


7.4.6 ENGAGEMENT WITH SPECIFIC SUBJECTS AT 13 YEARS

Students were also asked at age 13 how difficult and how interesting they found a range of school subjects, including English and Maths. Figure 7.13 shows the relationship between this current view of their academic subjects and their performance on the related cognitive tests. For instance, of those who found English difficult, the average score on the Verbal Reasoning test is 99 while among those who found Maths difficult the average score on the Numerical Ability test is 91.

The relationship between finding English difficult or interesting and the Verbal Reasoning score is as expected, but not very strong. There is only a four-point difference in the Verbal Reasoning score between those who find English difficult, for instance, and those who find English interesting. To put this in perspective, the standard deviation on the scale is 15 points, and there was a 10-point difference between those who always and never liked Reading at age nine. The pattern was much clearer in terms of Maths and Numerical Ability scores, with a 15-point difference between those who found Maths the least difficult and those who found it the most difficult. It is not possible to determine the direction of this relationship, however. More analysis would be necessary to test whether a positive view of Maths leads to higher test scores or if higher test scores lead to a more positive view of the subject.

Figure 7.13: Verbal Reasoning and Numerical Ability test scores by 13-year-old’s view of difficulty of and interest in English and Mathematics at 13 years





7.5 SUMMARY

The following were among the most important findings from this chapter, which focused on the cognitive development and academic self-image of the 13-year-olds:

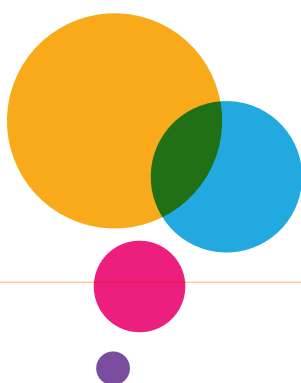
- The Verbal Reasoning Ability and Numerical Ability (both measured by the Drumcondra tests) were strongly associated with social advantage and disadvantage, with a difference of almost one standard deviation in the scores between those 13-year-olds whose Primary Caregivers had a college degree and those with Junior Certificate or less. Differences by social class and income group were also substantial, but differences between 13-year-olds in one-parent and two-parent families tended to be smaller.
- There was a strong link between the Verbal Reasoning score at 13 and the Drumcondra Reading test at age nine, with a 28-point difference in the score at 13 years old between those in the lowest quintile and those in the highest quintile at age nine. This amounts to a difference of nearly two standard deviations. The corresponding difference for Numerical Ability at 13 by the Drumcondra Maths score at age nine was 20 points. This points to a strong continuity in ability in these important subjects between age nine and age 13.
- The indicators of cognitive ability were also associated with academic self-concept: those with a more positive academic self-concept at age nine had higher scores at age 13 (roughly ten points higher for those with an above-average academic self-concept compared to those with a very low self-concept). A similar gap was found between self-concept at age 13 and the scores measured at the same age.
- Liking school (at both ages nine and 13) and liking school subjects was also associated with ability scores at age 13 in the expected ways. However, finding English interesting or difficult at age 13 had only a weak relationship with the Verbal Reasoning score at the same age. This contrasted with the results for Numerical Ability, which was strongly associated with whether the 13-year-old reported finding Maths difficult.





Chapter 8

EMOTIONAL AND BEHAVIOURAL OUTCOMES – RELATIONSHIP WITH PARENTS



8.1 INTRODUCTION

This chapter looks at the 13-year-old's socio-emotional and behavioural (SEB) outcomes and how these are associated with different family processes, such as parenting and relationships. The exploration of psychological functioning in children and young people is crucial, given its links with important outcomes, both during childhood and adolescence, and also in later life. Some outcomes associated with SEB well-being highlighted in the literature are substance abuse (McCrystal, Higgins and Percy, 2005), depression (e.g. Meagher et al., 2009), educational underachievement (e.g. McClelland, Morrison and Holmes, 2000) and poor peer relations (e.g. Newcomb, Bukowski and Pattee, 1993), while Buchanan (1999) highlights physical illness, mental health difficulties and impaired relationships with partners and family in adulthood. In contrast, the successful development of SEB functioning has been associated with adaptive resilience in the face of stressful circumstances (Saarni, 2000).

While it is not uncommon for young people to experience some difficulties as they grow up, for most of them these do not develop into a significant problem in the future. It is believed, however, that around 70 per cent or more of youth who do experience serious difficulties neither seek, nor receive, help for their problems (Sourander et al., 2004). The cost of adolescent disorders includes not only the human suffering of the young people, family and community members, but also wider economic and social costs. On the upside, young people are particularly receptive to the positive influences of youth development strategies, social and emotional learning and behavioural modelling (National Research Council and Institute of Medicine, 2002; Steinberg et al., 2004), which is particularly important from a policy perspective.

In the following sections the measure of socio-emotional and behavioural (SEB) well-being are described, in Section 8.2. In Section 8.3, the socio-emotional and behavioural well-being of these children at the last wave when they were nine years old is reviewed. Changes between ages nine and 13 are also explored. The association between family circumstances and SEB is considered in Section 8.4. Associations with family relationships and SEB are made in Section 8.5. The important issue of parental monitoring and child disclosure is examined in Section 8.6. A further aspect of the parent-child relationship is then examined in Section 8.7, where the focus shifts to parenting style. In Section 8.8, the impact on child socio-emotional and behavioural development of stressful childhood events are examined. Finally, the chapter concludes in Section 8.9 with a brief summary of the key findings.

8.2 THE MEASURE OF SOCIO-EMOTIONAL AND BEHAVIOURAL WELL-BEING

As noted in Chapter One, *Growing Up in Ireland* adopted a widely used scale to assess child socio-emotional and behavioural well-being: the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997). This is a parent-reported screening scale that examines the Study Child's behaviour and emotional state over the past six months on five subscales (emotional symptoms, conduct problems, hyperactivity, peer problems and prosocial behaviour). A Total Difficulties scale is formed by combining the scores from the first four 'deficit' subscales (emotional symptoms, conduct problems, hyperactivity and peer problems). Those with scores in the top 10 per cent are regarded as being at risk of socio-emotional and behavioural difficulties (Goodman, 1997).

The figures in Chapter One were generally positive in that the averages for the Irish 13-year-olds were very close to (or slightly more favourable than) those in the UK and the averages had tended to improve since age nine (see Table 1.2). The low scores on the deficit subscales and the Total Difficulties score indicated a generally high level of well-being in terms of socio-emotional development. The scores of the Irish children on the prosocial behaviour scale were also more indicative of positive behaviour towards others, such as being considerate of other people's feelings or often volunteering to help others (see Section 1.5.4).

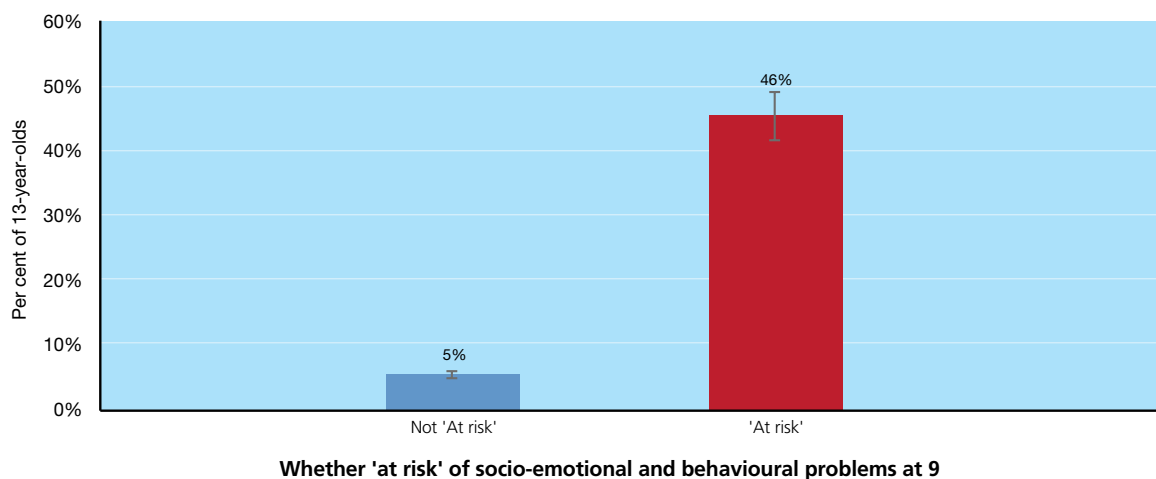


8.3 SOCIAL, EMOTIONAL AND BEHAVIOURAL OUTCOMES AT 9 YEARS

Figure 8.1 shows the relationship between the Total Difficulties score at age nine and the SDQ scale at age 13. The 'error bars' in the figure show the size of the 95 per cent confidence interval around the estimated percentage. This is the range within which a researcher can be '95 per cent confident' that the percentage in the population will be found, based on the characteristics of our sample.

Figure 8.1 indicates that, on the Total Difficulties scale, a little less than half of the 13-year-olds who had been in the 'at risk' range at age nine (i.e. in the top 10 per cent on the Total Difficulties score) continued to be in the 'at risk' range at age 13. On the other hand, only five per cent of those who had been in the 'typical' group at age nine were in the 'at risk' group by age 13. Some of the apparent change over time may reflect children being rated just above a cut-off point on one occasion and just below on the other. Nevertheless, although children at risk of socio-emotional or behavioural difficulties at age nine are more likely than other children to be in the 'at risk' category at age 13, a substantial proportion have moved out of this category in this four-year time span.

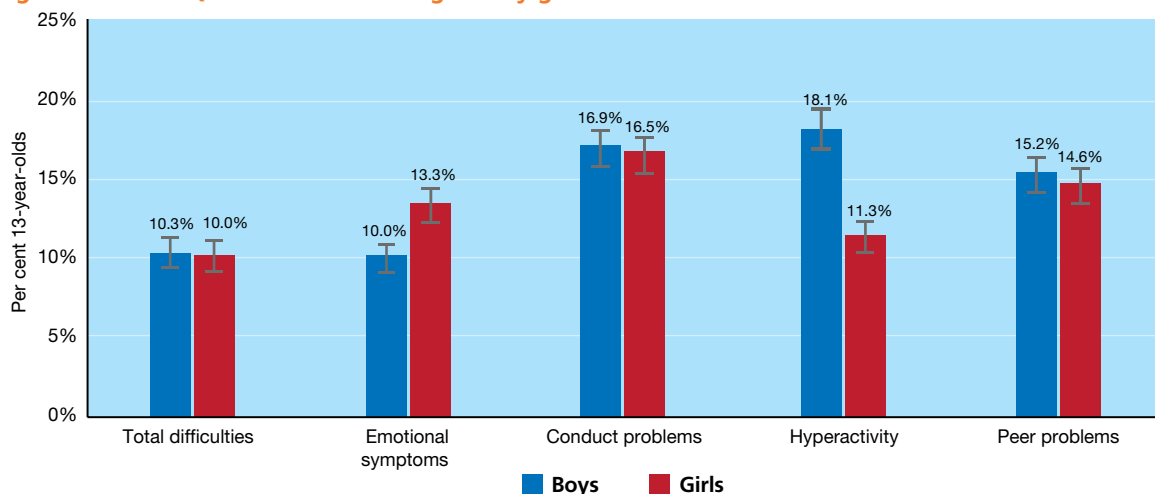
Figure 8.1: Percentage of 13-year-olds at risk of socio-emotional and behavioural problems by whether at risk at age 9



8.3.1 GENDER AND SOCIAL, EMOTIONAL AND BEHAVIOURAL OUTCOMES

While the literature suggests that gender differences in socio-emotional and behavioural difficulties become increasingly evident with age (e.g. Rutter, Caspi and Moffitt, 2003), findings from *Growing Up in Ireland* suggest that there are no significant gender difference in the Total Difficulties score at age 13. However, Figure 8.2 shows that gender differences emerge for specific difficulties. For illustrative purposes, the figure shows the percentages of boys and girls above the threshold that is as close as possible to the most 'at risk' 10 per cent calculated across both genders. Girls were significantly more likely to fall into this range on emotional well-being than boys (13 compared to 10 per cent), while boys were significantly more likely to fall into this range on hyperactivity (18 compared to 11 per cent).

Figure 8.2: SDQ 'at risk' status at age 13 by gender



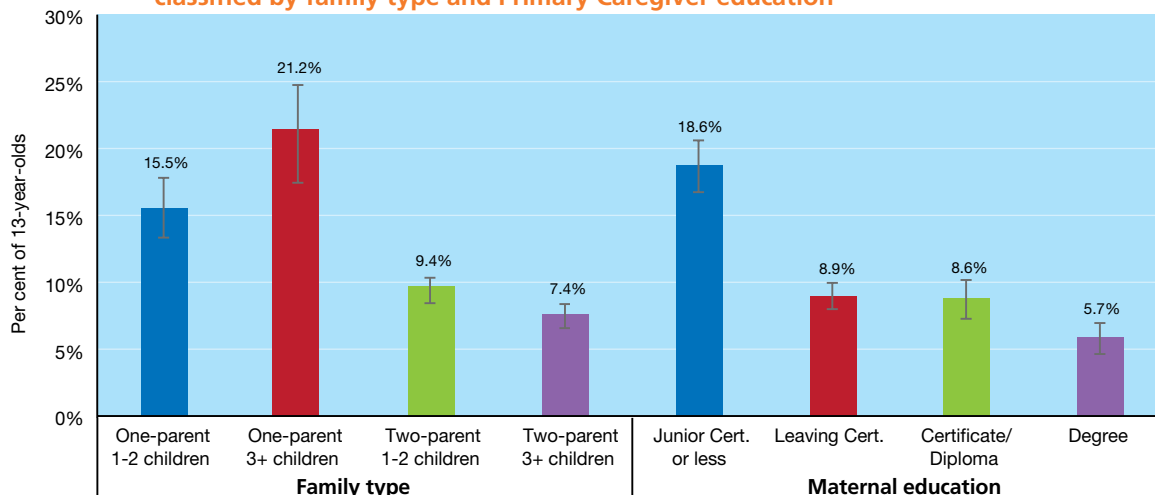
Contrary to expectations, based on findings at age nine, however, at age 13 there was no gender difference in parent report for conduct problems. At age nine, boys had been significantly more likely to have heightened conduct problems than girls, as reported by both parents (11 per cent of boys compared to eight per cent of girls) and teachers (16 per cent of boys compared to nine per cent of girls) (not shown).

8.4 FAMILY CIRCUMSTANCES, SOCIO-EMOTIONAL AND BEHAVIOURAL OUTCOMES AT 13

The association between socio-economic factors and child outcomes has received some attention in the literature, using cross-sectional, cohort and longitudinal studies. For example, recent work by Singh and Ghandour (2012) on data from the US found that the odds of a child exhibiting a serious behaviour disorder increased 1.9 times if the child lived in an unsafe neighbourhood with poor housing, garbage in the streets, and high rates of vandalism; 1.9 times if the parents had less than high school education, and 3.7 times if the child lived in poverty.

Figure 8.3 shows that being in the 'at risk' group on the SDQ Total Difficulties score is significantly associated with family type and with Primary Caregiver education. The levels are twice as high for children in one-parent families as they are for children in two-parent families in the same size category (16 to 21 per cent for small and larger one-parent families and seven to nine per cent, respectively, for children in small and large two-parent families). The levels are three times higher for Primary Caregivers with lower levels of education (19 per cent where the Primary Caregiver has Junior Certificate or less compared to six per cent where the Primary Caregiver has a degree).

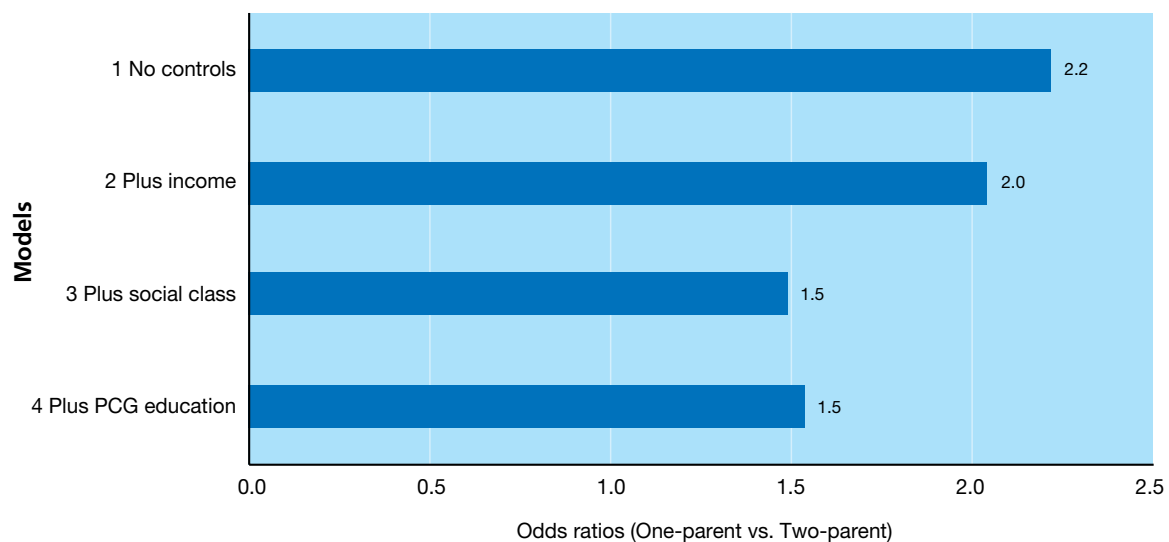
Figure 8.3: Percentage of 13-year-olds in 'at risk' category on the Total Difficulties score of the SDQ, classified by family type and Primary Caregiver education





Since levels of Primary Caregiver education (and associated factors such as family income and family social class) differ between one- and two-parent families, it is worth asking whether these socio-economic factors might account for the differences by family type. Figure 8.4 illustrates that, when these socio-demographic variables (family type, social class, income and Primary Caregiver education) were analysed together using logistic regression,³⁴ family type remained significantly associated with heightened difficulties experienced by the 13-year-old. The figure shows odds ratios that compare the odds of an outcome (in this case having a Total Difficulties score in the top 10 per cent) for one-parent and two-parent families. For instance, the odds of a high level of difficulty are 2.2 times higher for children in one-parent families than for those in two-parent families. When family income is accounted for, the ratio drops a little, to 2.0, but remains statistically significant. Adding social class reduces the odds ratio further (to 1.5) while adding Primary Caregiver education leaves the ratio at 1.5, and it remains statistically significant. This means that the effect of family type remains an important factor related to emotional difficulties even when other related variables are accounted for.

Figure 8.4: Odds ratios for heightened difficulties by household type, controlling for Primary Caregiver education, income and social class



Note: All of the odds ratios have been rounded to a single decimal point and are statistically significant (significantly greater than 1).

8.5 FAMILY RELATIONSHIPS AND CHILD OUTCOMES

Recent studies have shown that, where the relationship between the parents is positive, socio-emotional outcomes for children are improved (Gerard, Krishnakumar and Buehler, 2006; Hair, Moore, Hadley et al., 2009). Further, the children have more positive attitudes towards marriage and are more likely to have better relationships and marriages in the future (Amato and Booth, 2001). Couple satisfaction is an important factor in family functioning and the spousal relationship is recognised as an important source of support for competent parenting (Belsky, 1984).

Parenting style has also been shown to be a critical pathway by which healthy parental relationships affect positive child outcomes (Moore, Kinghorn and Bandy, 2011). Authoritative parenting can be considered “firm but fair”. It is defined as being responsive to the child’s needs but demanding that rules/standards be adhered to (High Responsiveness, High Demand). Authoritative parenting is associated with well-being in adolescents and with fewer behavioural problems (Steinberg and Silk, 2002), as well as with higher levels of school commitment and lower levels of depressive symptoms (Simons and Conger, 2007).

On the other hand, an “authoritarian” parenting style, as distinct from “authoritative”, is characterised by a rigid application of rules and a low level of responsiveness to the needs of the child (High Demand, Low Responsiveness). An authoritarian parenting style has been found to be linked to poorer social skills,

³⁴ Logistic regression estimates the relationship between several predictor variables in one model, in this case family type, income, education and social class, and a dependent variable (here, being in the ‘at risk’ range for socio-emotional and behavioural problems). Note that the R-squared with the interpretation from OLS (as percentage of variation explained) is not available for logistic regression.

higher levels of depressive symptoms and lower self-esteem (Milevsky et al., 2007). A meta-analysis of 161 studies by Hoeve et al. (2009) found that the related issues of parental behavioural control and monitoring were linked to lower levels of delinquency, especially in early adolescence.

The quality of the couple relationship in *Growing Up in Ireland* was measured using the short four-item form of the Dyadic Adjustment Scale (DAS-4) (Sabourin, Valois and Lussier, 2005). It provides an assessment of couple satisfaction with the relationship based on participants' self-report and includes items such as whether they have considered divorce or separation, and how they rate the happiness of the relationship overall. Scores falling one standard deviation below the mean DAS score (roughly the bottom 16 per cent of scores) were used to identify those in potentially distressed relationships. By definition, the following analyses refer only to two-parent families.

8.5.1 THE PARENTAL RELATIONSHIP AND SOCIO-EMOTIONAL OUTCOMES AT 13

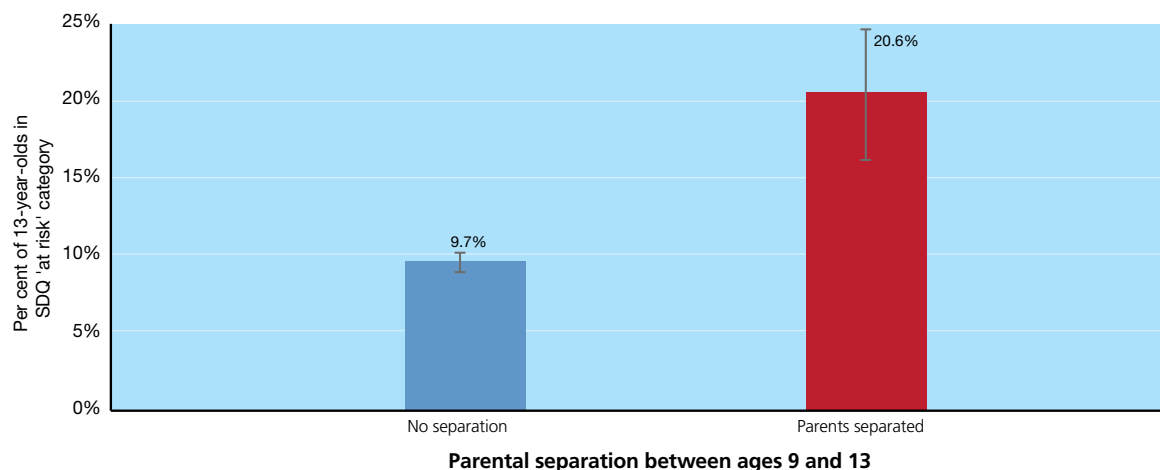
Contrary to expectations, the relationship between parents of the 13-year-olds was not significantly associated with socio-emotional and behavioural outcomes as measured by the SDQ. The percentage of 13-year-olds who were in families in the lower family stress range of the DAS scale were not significantly more likely to be in the 'at risk' range on the SDQ Total Difficulties scale.

8.5.2 LONGITUDINAL TRENDS

Although socio-economic and parenting factors could account for associations between family structure and child well-being (e.g. Hofferth, 2006; Marks, 2006; Ram and Hou, 2003), emerging research in this area has demonstrated the importance of family instability similar to Figure 8.4 above., although this work is still at a relatively early stage (e.g., McLanahan, 2012). It is important to note that children vary widely in their experiences. Children from traditional two-parent families can experience circumstances known to increase the risk of poor outcomes, such as poverty, parental conflict and poor parenting, while some children whose parents separate cope well, perhaps because their parents were able to separate and co-parent amicably (Amato, 2005). Beck et al. (2010) also found that the effect of family instability on a Primary Caregiver's parenting may differ depending on her education and the types of parenting under examination.

In the *Growing Up in Ireland* study, it was found that, where the parents had separated between the time the Study Child was aged nine and 13, the 13-year-old was significantly more likely to be in the 'at risk' range on the SDQ Total Difficulties score (21 and 10 per cent, respectively – see Figure 8.5). As noted above, there is a strong likelihood of parental conflict before, during and after separation (Birditt et al., 2010; Petren et al., 2017), but, given the time gap between data collection points (four years in this instance), the data are not sensitive enough to pick up on this particular process. The next wave of data (at 17 years) will help in ascertaining whether parental separation has a lasting impact. For example, there could be a trauma effect due to recency of the event, but this may well have dissipated by the time the 13-year-old is 17.

Figure 8.5: Per cent of 13-year-olds in SDQ 'at risk' range by whether parents separated since age 9





8.5.3 THE PARENT-CHILD RELATIONSHIP AND SOCIO-EMOTIONAL OUTCOMES

The parent-child relationship is as an important element in the mental health of children. The quality of this relationship during later childhood and adolescence has been highlighted as an important correlate of child adjustment (Davies, Harold, Goeke-Morey and Cummings, 2002; O'Connor and Scott, 2007; Wilson and Gottman, 2002). For example, the probability that children who enjoy positive relationships with their parents will engage in aggressive behaviours, bullying others, committing property offences or affiliating with deviant peers is much lower. They are also more likely to be involved in their schoolwork, have higher self-esteem, are less likely to be victimised by others, are less likely to experience hyperactivity/attention problems, and tend to experience fewer serious injuries. In contrast, distress associated with parent-child conflict during adolescence can often lead to maladjustment, including conduct and emotional problems (e.g. Yeh, 2011).

A 15-item parent-child relationship scale (Pianta, 1992) measures closeness and conflict in the parent-child relationship, and was completed by both PCG and SCG where the SCG was resident. Table 8.1 shows that, for both parents, the scores tended to be high for closeness (32 for the Primary and 31 for the Secondary Caregiver out of a possible 35) and low for conflict (15 for both parents out of a possible 40). These findings indicate that the scores on this scale have a skewed distribution, with the majority of parents reporting relationships that are generally low in conflict and high in closeness.³⁵

Table 8.1: Maximum, minimum and mean scores for closeness and conflict among Primary and Secondary Caregivers

Parent	Pianta Subscales	
	Closeness	Conflict
PCG	32.1	15.3
SCG	30.5	15.1
Maximum scale score	35	40

Note: Higher scores indicate higher levels of closeness or conflict.

There are no published norms for the parent-child version of the Pianta scale and there are no recommended cut-off points or thresholds to define high or low conflict or closeness. To make meaningful comparisons across groups, scores in the top tertile (or third) on each subscale were regarded as *high* while those in the bottom tertile were considered as *low*.³⁶

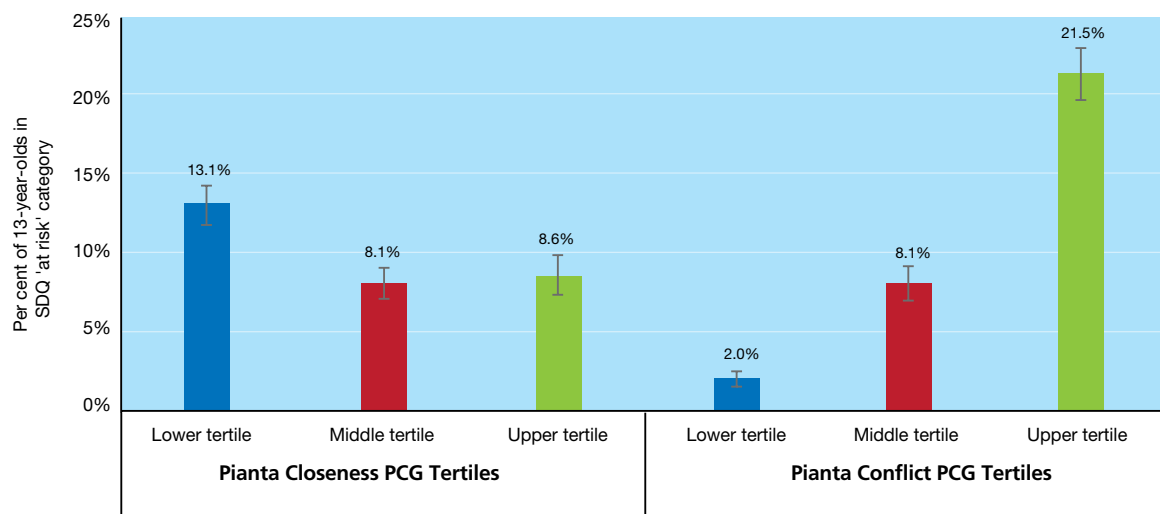
Figure 8.6 illustrates the contrast between these two aspects of the parent-child relationship and emotional and behavioural outcomes. The graph shows that those 13-year-olds with parents in the least close relationships (lowest tertile) were much more likely than others to have heightened emotional and behavioural problems (13 compared to 8-9 per cent). The differences between the middle and top groups on the closeness scale were not statistically significant, however.

On the other hand, being in a highly conflicted relationship with the Primary Caregiver at age 13 was significantly associated with being at risk of emotional and behavioural difficulties. The associations are much stronger for conflict than for closeness. Over one-fifth (22 per cent) of 13-year-olds in a highly conflicted parent-child relationship were in the 'at risk' group for Total Difficulties on the SDQ, compared to two per cent of those in the least conflicted relationships.

³⁵ Note that questions on parent-child relationship were asked by the interviewer in the main interview and therefore may be susceptible to social desirability biases.

³⁶ An attempt was made to use quintiles or quartiles for further differentiation, but the highest score on the closeness subscale equated to 29 per cent of the sample, making tertiles the viable option.

Figure 8.6: Percentage of 13-year-olds with ‘at risk’ SDQ scores by conflict and closeness in parent-child relationship at age 13



8.6 PARENTAL MONITORING AND CHILD DISCLOSURE

Monitoring young people’s behaviour is considered an essential parenting skill, one that becomes much more salient at adolescence when young people begin to assert their independence and spend more time with peers and less time under the direct supervision of their parents. Two of the main sources of obtaining knowledge about their children are through parental *monitoring* and child *disclosure*. Monitoring refers to the extent and quality of communication, and the surveillance that parents exercise over their child’s life. In general, research suggests that children whose behaviour is consistently monitored are less likely to engage in delinquency (Jacobson and Crockett, 2000; Pettit, Laird, Dodge, Bates and Criss 2001), or participate in substance use (Dishion, Capaldi, Spracklen and Li, 1995). Low levels of monitoring are associated with increased problem behaviours, which are in turn shown to be a predictor of police arrests and delinquent lifestyle. They have also been linked to lower academic achievement (Steinberg et al., 1992), depression (Gil-Rivas et al., 2003), as well as lower levels of parental involvement (Laird, Pettit, Dodge et al., 2003). Conversely, high levels of monitoring can act as a protective factor. Research has shown that well-monitored youths are less involved in delinquency and other norm-breaking behaviours (Stattin and Kerr, 2000).

Parents may also increase their knowledge about adolescents’ activities because they exert high levels of *control* over their children. Stattin and Kerr (2000) conceptualised control as the extent to which parents require adolescents to obtain permission before going out and insist on being informed about their children’s whereabouts, activities, and associates. Greater parental control has been linked with lower levels of adolescent problem behaviours (Stattin and Kerr, 2000).

Finally, as adolescents spend more time away from home, they have increased opportunities to manage information, keep things secret and make choices about disclosure (Kerr and Stattin, 2000). Some evidence suggests that adolescent *disclosure* may be a stronger predictor of both parental knowledge and adolescent adjustment than parents’ active efforts at monitoring their children (Kerr and Stattin, 2000; Stattin and Kerr, 2000). This stronger relationship to adolescent disclosure than to parenting practices has been demonstrated for internalising problems such as low self-esteem and depressed mood, as well as externalising problems such as delinquency. Adolescents also use multiple strategies, such as lying, omitting important information and avoiding the subject, to manage the information they impart to their parents (Darling et al., 2006). The use of these strategies varies by both situation and individual, and they



are differentially linked with adolescent adjustment (Smetana et al., 2009; Tasopoulos-Chan et al., 2009). Demographic variables such as age and sex also influence adolescent information management, although the effects are not always consistent (Smetana et al., 2006; Stattin and Kerr, 2000).

Adolescents' disclosure is consistently positively associated with supportive parenting behaviours (Smetana et al., 2006; Soenens et al., 2006) and parent-adolescent relationship quality (Smetana et al., 2009). **Growing Up in Ireland** includes three of the four parent-child relationship subscales originally devised by Stattin and Kerr (2000): Parental Monitoring, Parental Control and Child Disclosure (Parental Supervision was not included). The Monitoring and Child Disclosure subscales were completed by the parent(s) of the teenager, and the Parental Control subscale was completed by the 13-year-old (once in respect of both parents). Higher scores on the subscales indicate higher levels of *monitoring*, *disclosure* or *control*, although there are no published norms for the scales. Examples of items on the subscales included:³⁷

- Monitoring: *Do you know what [Study Child] does in their free time? Do you know who [Study Child] has as friends during their free time?*
- Disclosure: *Does [Study Child] spontaneously tell you about their friends (which friends they hang out with and how they think and feel about various things)? How often does [Study Child] usually want to tell you about school (how each subject is going; relationships with teachers)?*
- Control: *Must you have your parents' permission before you go out during the weeknights? If you go out on a Saturday evening, must you inform your parents beforehand about who will be along as well as where you will be going?*

The scores were skewed for the Caregiver completed measures, as was the case for the parent-child relationship measure (Pianta) discussed above. This indicates that levels of monitoring and disclosure were generally high. The mean scores for monitoring were similar for Primary and Secondary Caregivers (40 and 38 respectively, where the maximum score was 45; range – 0-45), as they were for disclosure (20 and 19, where the maximum score was 25; range – 0-25). For control, the mean score was 20 where the maximum score was 30 (range – 0-30).³⁸

Due to the skewness of the measures it was more informative to categorise the data into quintiles than to report means. To explore associations with outcomes and make comparisons across different groups, scores in the bottom quintile were used to refer to *low* levels of monitoring, disclosure and control, while scores in the top quintile were used to refer to *high* levels of monitoring, disclosure and control (see the following sections). Note that these are relative measures rather than indicating high or low levels of monitoring, disclosure and control in any absolute sense.

8.6.1 CHILD GENDER AND MONITORING AND DISCLOSURE

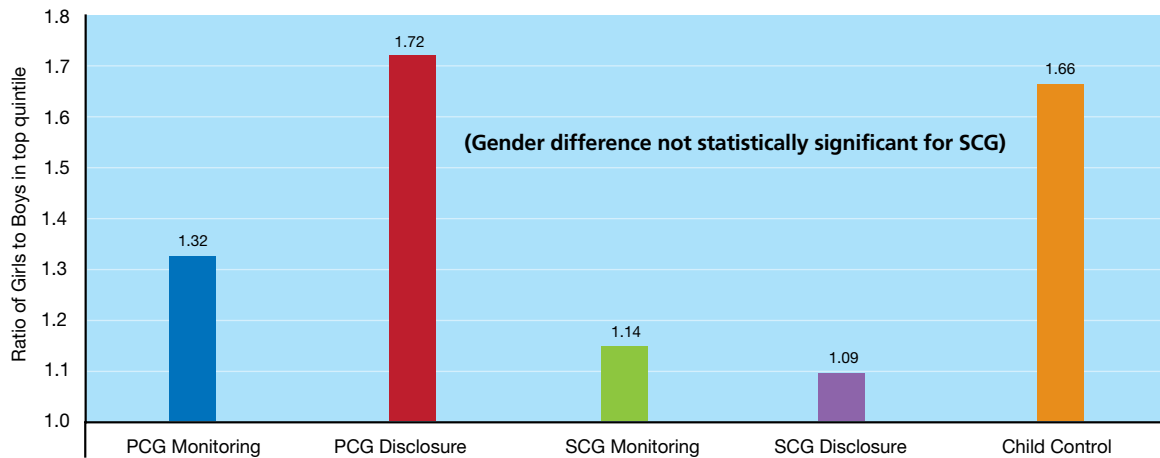
Figure 8.7 shows the differences by child gender in reporting of high (top quintile) levels of monitoring, disclosure and control. The chart shows how much more likely girls are than boys to be found in the high categories (the top fifth) on each dimension.³⁹ In general, levels of monitoring and disclosure reported by the Primary Caregiver with respect to girls are significantly higher than those reported for boys. For example, in the case of monitoring, as reported by the Primary Caregiver, girls are 1.3 times as likely as boys to be found in the top category and the figure for disclosure is 1.7 times as likely. Girls themselves are also more likely to report high levels of parental control (1.66 times as likely as boys). However, the gender differences are not statistically significant for monitoring and disclosure reported by the Secondary Caregiver.

³⁷ See Thornton et al. (2016) for psychometric properties of the scales.

³⁸ Cronbach's alpha was 0.49 for PCG monitoring, 0.54 for disclosure to PCG, 0.54 for SCG monitoring, 0.52 for disclosure to the SCG and 0.77 for parental control as reported by the 13-year-old. Alpha can range from 0 to 1, with higher values suggesting that items capture a single underlying construct. There is no agreed threshold as to what alpha level is acceptable.

³⁹ The actual percentages in the top categories, as close as possible to the top 20 per cent, were 18 per cent for PCG monitoring, 20 per cent for PCG disclosure, 23 per cent for SCG monitoring, 18 per cent for SCG disclosure and 19 per cent for parental control (as reported by the Study Child).

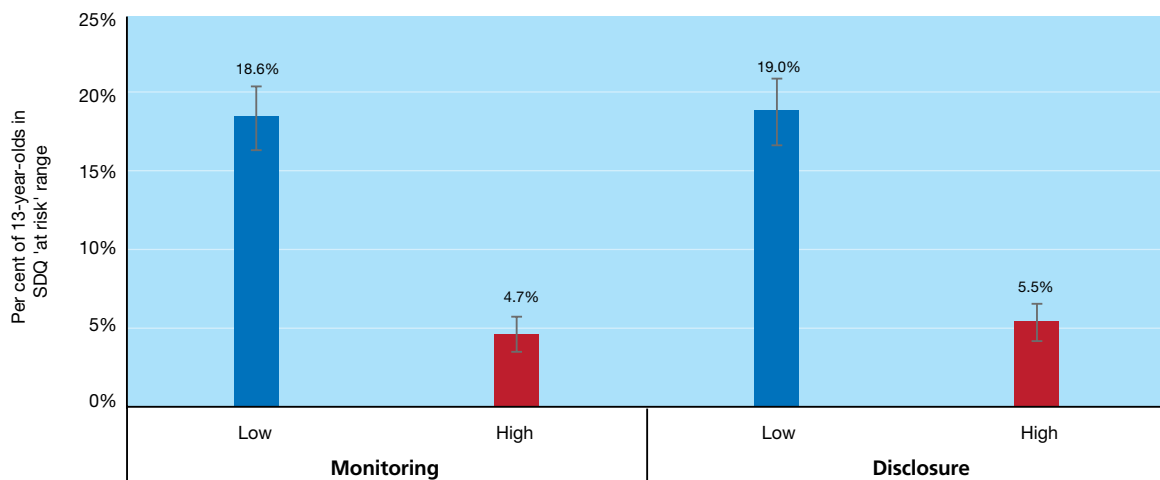
Figure 8.7: Ratio of girls to boys in high (top quintile) levels of monitoring, disclosure, and control



In *Growing Up in Ireland*, 13-year-olds who were more highly monitored by their Primary Caregiver were considerably less likely to be rated as having heightened socio-emotional and behavioural difficulties compared to those who were not well monitored. Figure 8.8 shows that only five per cent of 13-year-olds who were highly monitored (in the top quintile) were at risk for socio-emotional and behavioural difficulties, compared to 19 per cent of those with the lowest level of monitoring. However, parents reported on monitoring, disclosure and the SDQ, and there is a possibility that parent-reported associations influenced both sets of responses.

Figure 8.8 also points to a similar pattern for levels of child disclosure. Only six per cent of 13-year-olds who were reported by parent to have disclosed a lot to their parents were at risk of having heightened socio-emotional and behavioural difficulties, compared to 19 per cent of those who did not tend to disclose information.

Figure 8.8: Percentage of children at risk of socio-emotional and behavioural problems, by level of parental monitoring and level of child disclosure, as reported by Primary Caregiver





8.7 PARENTING STYLE AND CHILD OUTCOMES

Parenting style is widely acknowledged as being an important contributor to child development and later well-being (see literature review in *Growing Up in Ireland* Research Paper 3). Parenting style was reported by the 13-year-old in *Growing Up in Ireland* at both nine and 13 years using the Parenting Style Inventory (PSI-II) (Darling and Toyokawa, 1997). This scale was designed to assess the construct of parenting style independently of parenting practices. Parenting style refers to the overall emotional climate in which particular parent-child interactions occur, whereas parenting practices refer to the types of behaviours discussed above – monitoring and control. The scale has three subscales. Higher scores on each are regarded as evidence of parenting likely to be associated with positive child outcomes:⁴⁰

- **Demandingness:** the extent to which parents demonstrate firm control, impose discipline, set maturity demands, provide supervision, engage in direct confrontation, and establish performance/behavioural expectations for their children
- **Responsiveness:** the extent to which parents are warm, supportive, sensitive, interested, non-coercive, and attuned to their child's needs
- **Autonomy granting:** the extent to which parents allow or encourage children to think for themselves and to argue with parents as well as the extent to which parents explain and justify rules to their children

Table 8.2 shows the mean scores and ranges for the different aspects of parenting style, demandingness, responsiveness and autonomy granting by the Primary and Secondary Caregivers. There is little difference in the means between the two parents in terms of how they were rated by the 13-year-olds, indicating a modest tendency for adolescents to rate each of their parents similarly. The generally high scores are indicative of positive parenting (Darling and Toyokawa, 1997).

Table 8.2: Maximum, minimum and mean scores for demandingness, responsiveness and autonomy granting by the Primary and Secondary Caregivers

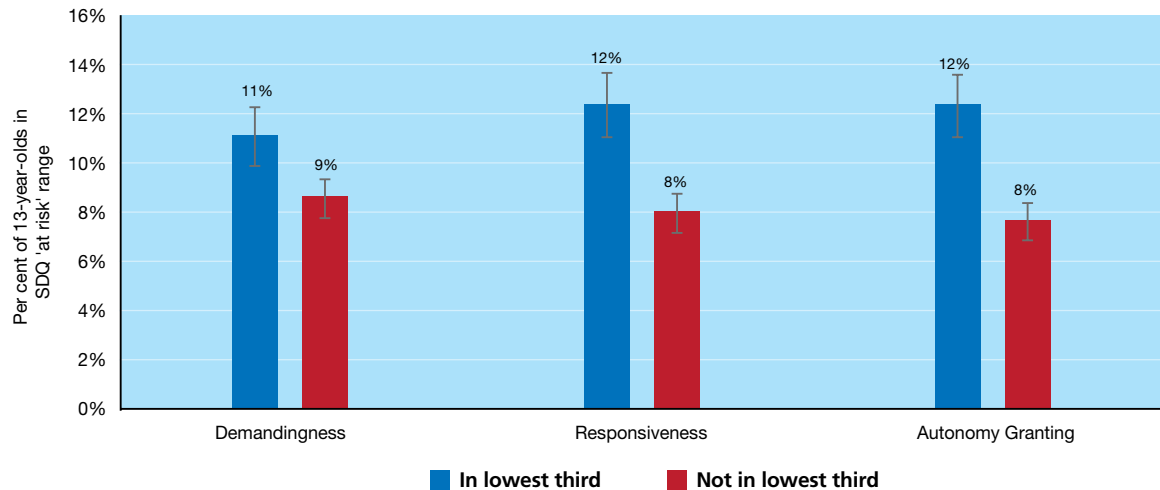
	Primary Caregiver	Secondary Caregiver	Maximum
Demandingness	18.4	18.0	25
Responsiveness	20.5	19.6	25
Autonomy-granting	18.3	18.7	25

Note: High scores indicate parenting likely to be associated with positive child outcomes (Teti and Candelaria, 2002).

Figure 8.9 indicates that being in the 'at risk' group for socio-emotional and behavioural problems, as measured by the Total Difficulties score on the SDQ, was associated with parenting styles that were low (in the bottom third) in each of the three dimensions – demandingness, responsiveness and autonomy-granting. The percentage of 13-year-olds who are at risk of socio-emotional and behavioural problems is higher by a small but statistically significant factor (about two to four percentage points) where the Primary Caregiver is less demanding, less responsive and less inclined to grant autonomy.

⁴⁰ See Thornton et al., 2016, for further details on the scales.

Figure 8.9: Percentage of 13-year-olds at risk of socio-emotional and behavioural problems by whether parent demandingness, responsiveness and autonomy granting is in the lowest third



8.8 STRESSFUL LIFE EVENTS

Most children experience some stressful events in their lives, but these can range from relatively minor to quite severe. Although some stressful life events may have more of an impact on parents, both major and minor events have been shown to contribute to children’s wellbeing (Armstrong and Boothroyd, 2008; Ford et al., 2007; Well and Evans, 2003). Early exposure to stressful life events often precedes childhood emotional disorders, which in turn often manifest as major depression and anxiety disorders in adulthood (Hazel et al., 2001; Fombonne et al., 2001; Kendler et al., 2003). The accumulation of stressful life events is also important. The literature indicates that outcomes deteriorate with the number of stressful events experienced. In one study of adolescent depression, Mayer et al. (2009) found that depressed adolescents had experienced significantly more stressful life events in childhood than non-depressed children.⁴¹ Further, the authors also suggest that, while it is possible that children may be resilient to specific life events, the accumulation of many of these at an early age may place them at much greater risk of developing disorders in later adolescence.

In *Growing Up in Ireland* the Primary Caregiver was presented with a list of 14 life events and asked to record whether or not the 13-year-old had experienced each since the time of the interview when the Study Child was nine. These listed items included: moving house, moving country, serious illness or injury, conflict between parents and death of a parent.⁴² All are seen as potential risk factors for the 13-year-old’s development and outcomes. For example, moving home may be stressful even if it is to a more desirable location. More traumatising events would include the death of a parent or family break-up. The respondent also had the opportunity to describe an event not covered in the list. As shown in Figure 8.10, 63 per cent of 13-year-olds had experienced at least one of these events since the age of nine.

Figure 8.10 shows the percentage of 13-year-olds reported to have experienced different types of events (in the last four years). Some of the more common ones were: death of a close family member (not including a parent, 39 per cent);⁴³ 13 per cent had moved house (within Ireland); 11 per cent had experienced the serious illness/injury of a family member; seven per cent had experienced conflict between parents, and six per cent had experienced the divorce or separation of their parents in the last four years.

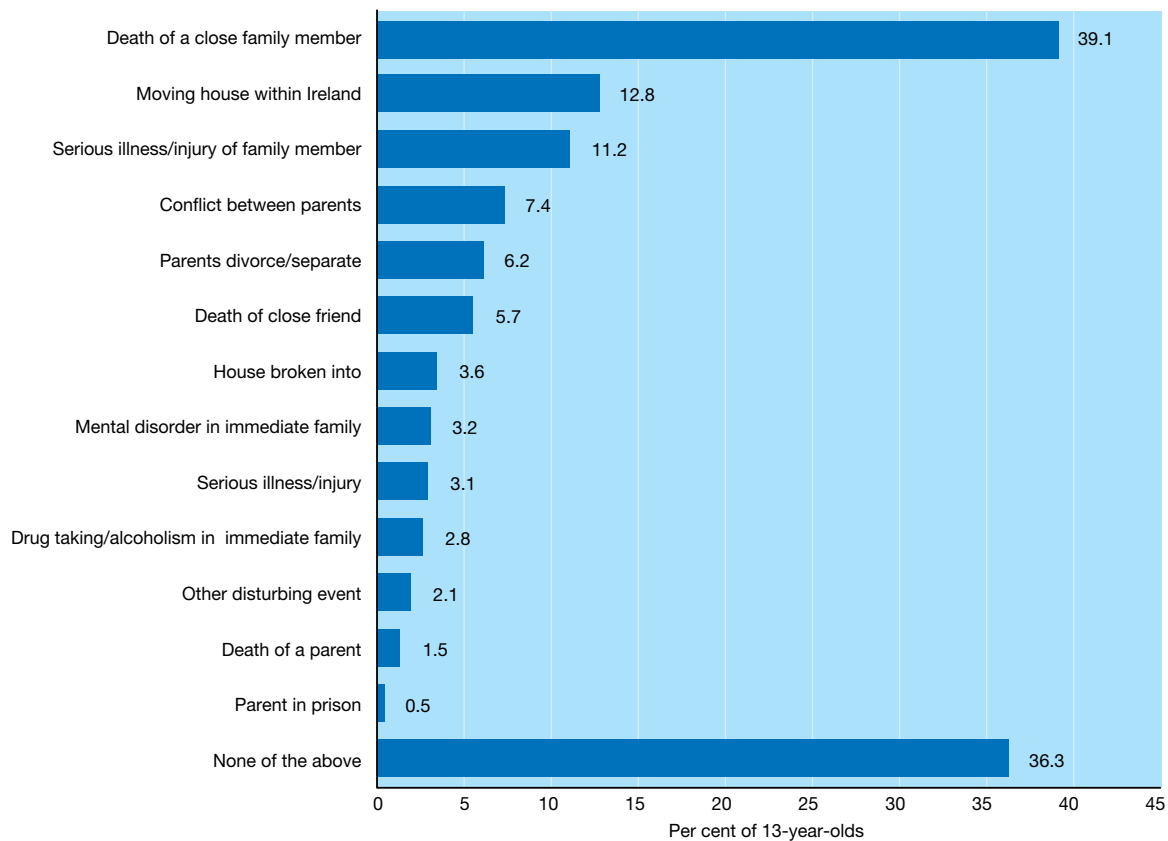
⁴¹ The authors examined 26 stressful life events, including parental health (hospitalisation, physical illness, or psychiatric illness); death of a close relative (parent or other family member); stressful socio-demographic events (financial problem, moving, parental unemployment, natural disaster, loss of home) and interfamilial stresses (birth, hospitalisation, psychiatric illness of sibling, foster care, family arguments, and divorce of parents).

⁴² No further detail is available on issues such as the circumstances of the move, the outcome of the illness or injury or the consequences of parental conflict.

⁴³ Of these, 64 per cent were grandparents, 16 per cent aunts/uncles, and seven per cent great grandparents.



Figure 8.10: Percentage of children experiencing different life events since Wave 1 (age 9) reported by parents



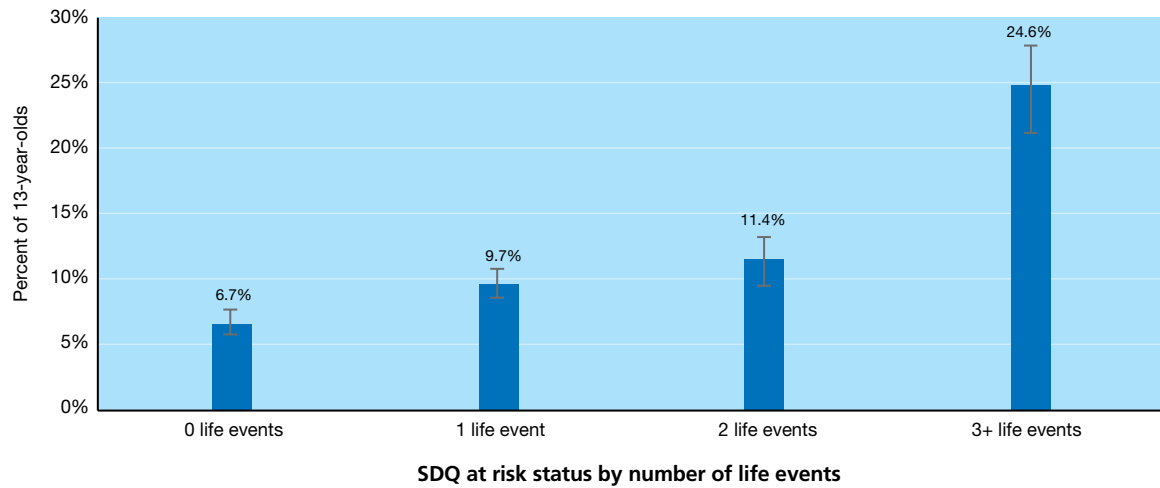
In total, parents reported that 64 per cent of 13-year-olds in the *Growing Up in Ireland* child cohort had experienced at least one stressful life event over the four years since age nine, with 15 per cent experiencing two and eight per cent experiencing three or more. This experience of multiple stressful events may have a cumulative effect on outcomes for the 13-year-old, especially if one or more of these was a serious event.

8.8.1 STRESSFUL LIFE EVENTS AND EMOTIONAL AND BEHAVIOURAL OUTCOMES

Perhaps not surprisingly, the greater the number of stressful life events experienced by the 13-year-old, the more likely they were to be at risk for heightened psychological problems. Figure 8.11 highlights that 13-year-olds who had experienced one or more stressful life events in the last four years were significantly more likely to experience heightened socio-emotional and behavioural difficulties compared to those who had experienced none. Furthermore, 13-year-olds experiencing three or more stressful life events had substantially heightened difficulties, with 25 per cent in the 'at risk' range on the Total Difficulties score compared to just seven per cent of those who had experienced no serious life events since age nine. Although the percentage experiencing three or more stressful life events in the last four years is low (eight per cent), the important point here is that the risk of adverse socio-emotional and behavioural outcomes worsens as the 13-year-old has experienced a higher number of stressful events.⁴⁴

⁴⁴ The question about adverse life events ever experienced was asked at nine years of age. Using information from both time points, the number of adverse events ever experienced up to age 13 can be calculated. These findings showed that a much higher percentage had experienced three or more events at any point up to age 13 (43 per cent).

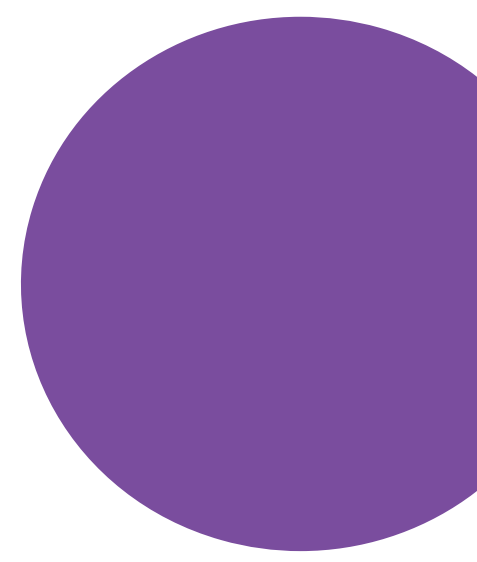
Figure 8.11: Number of stressful life events in the last four years and 'at risk' Total Difficulties SDQ score at 13



8.9 SUMMARY

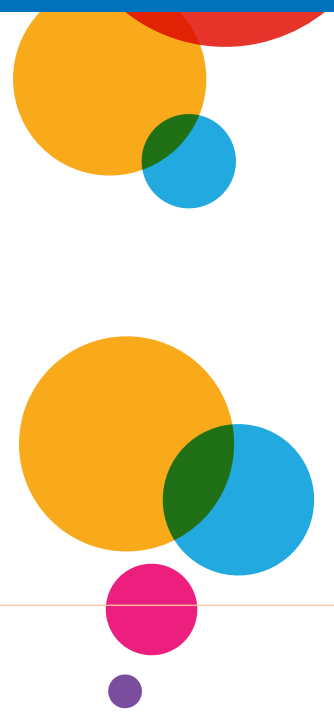
The focus in this chapter was on family relationships, parenting styles and parenting practices, and their association with the socio-emotional and behavioural well-being of the 13-year-old. The main findings are the following:

- Parent reports of their relationship with their children were generally positive, with high scores for closeness in the parent-child relationship (mean scores of 32 for the Primary and 31 for the Secondary Caregiver out of a possible 35) and low scores for conflict (mean scores of 15 for both parents out of a possible 40).
- The chapter also reports relatively high levels of monitoring of their 13-year-olds by parents and high reported levels of disclosure by the 13-year-old to the parent. Further, the parent-child relationship from the 13-year-old's perspective was high in the aspects of style that are generally regarded as beneficial: parents were demanding (mean score of 18 out of 25), responsive (mean score of 21 out of 25) and granted autonomy (mean score of 18 out of 25).
- Most of the 13-year-olds (61 per cent) had experienced at least one stressful life event since the age of nine. The three most common such events were death of a close family member (most often, a grandparent), moving house (13 per cent) and serious injury or illness of a family member (11 per cent).
- As was seen in Chapter One, the socio-emotional and behavioural well-being of 13-year-olds (as reported by their Primary Caregivers) is generally positive and very similar to means scores on corresponding measures in the UK. Further, since the age of nine, there have been small improvements in emotional symptoms, conduct problems, hyperactivity and peer problems. The analysis in this chapter showed that about half of those who were at risk of socio-emotional and behavioural difficulties at age nine were no longer in the 'at risk' group by age 13.
- Children in some groups are at a higher risk of socio-emotional and behavioural difficulties: those in one-parent families, where the Primary Caregiver has lower levels of education; where the parents separated since age nine; where there are high levels of conflict in the parent-child relationship; where the parent reports low levels of child monitoring or low levels of disclosure from their child, and where children had experienced a higher number of stressful events in their lives since age nine.



Chapter 9

EMOTIONAL AND BEHAVIOURAL OUTCOMES – RELATIONSHIP WITH PEERS



9.1 INTRODUCTION

This chapter considers several aspects of the socio-emotional development of 13-year-olds, from the perspective of the 13-year-olds themselves. Most of the information is based on the answers they recorded in their own interview. The four broad aspects of socio-emotional development considered are self-reports of peer interaction, bullying, self-esteem and low mood. Each aspect is considered in its own right as well as the ways in which each is related to the others: for example, peer interaction in association with the other three aspects of socio-emotional well-being, including bullying (Ladd and Burgess, 2001), self-esteem (Ladd, 2005) and low mood (Wade et al., 2002). With reference to the findings from the previous chapter, relevant links with socio-emotional and behavioural outcomes reported by parents on the Strengths and Difficulties Questionnaire (SDQ) are also included here.

During adolescence, young people spend an increasing amount of time with peers. One estimate is that, even discounting time spent in classroom instruction, almost one-third of waking hours are spent with peers; furthermore, adolescent peer interaction generally takes place with less adult guidance and control than in early/middle childhood (Rubin et al., 2006).

While the contribution of friends to social and emotional development has been well documented (e.g. Ladd, 2005), the experience of bullying has important negative consequences and can increase the risk of social isolation, depression and anxiety (Wolke et al., 2001). There is evidence that being bullied is also associated with externalising problems such as violent behaviours (Arseneault et al., 2006), while adolescents who are chronic victims of bullying often show increased risks of bullying others (Barker et al., 2008).

Recent research on self-esteem in adolescence has focused on specific domains as opposed to the notion of global self-worth. The Piers-Harris self-concept scale used in *Growing Up in Ireland* allows the consideration of various aspects of the 13-year-old's views of self-worth – for example, academic self-concept, popularity and physical appearance. These aspects of self-concept can vary with social context. For example, a 13-year-old may have a positive view about his/her social relationships but negative perceptions of his/her academic competence.

Adolescent depression has received a substantial amount of attention, partly because it is associated with many negative outcomes, including substance abuse, academic problems, physical health problems and increased risk of completed or attempted suicide (Horowitz and Garber, 2006). Research indicates that depression can be linked to many factors, including bullying (Mills, Guerin, Lynch, Daly and Fitzpatrick, 2004), early onset of puberty in girls (Wang et al., 2016), maternal depression (Wickham et al., 2015), and gender (McGuinness et al., 2012), among others. There is also evidence that low self-esteem and low mood are strongly correlated. Orth et al. (2008) drew on large longitudinal datasets, each with four repeated assessments, and found evidence that low self-esteem predicted subsequent levels of low mood, but not vice versa.

Section 9.2 examines friendship networks and their association with emotional well-being. Section 9.3 looks at peer interaction and bullying (the latter as a victim and/or a perpetrator). Aspects of self-esteem are considered in Section 9.4, with a particular focus on some factors associated with low self-esteem. Section 9.5 examines the prevalence of low mood and how this varies according to the characteristics of the 13-year-old. Finally, Section 9.6 provides a brief overview and summary.



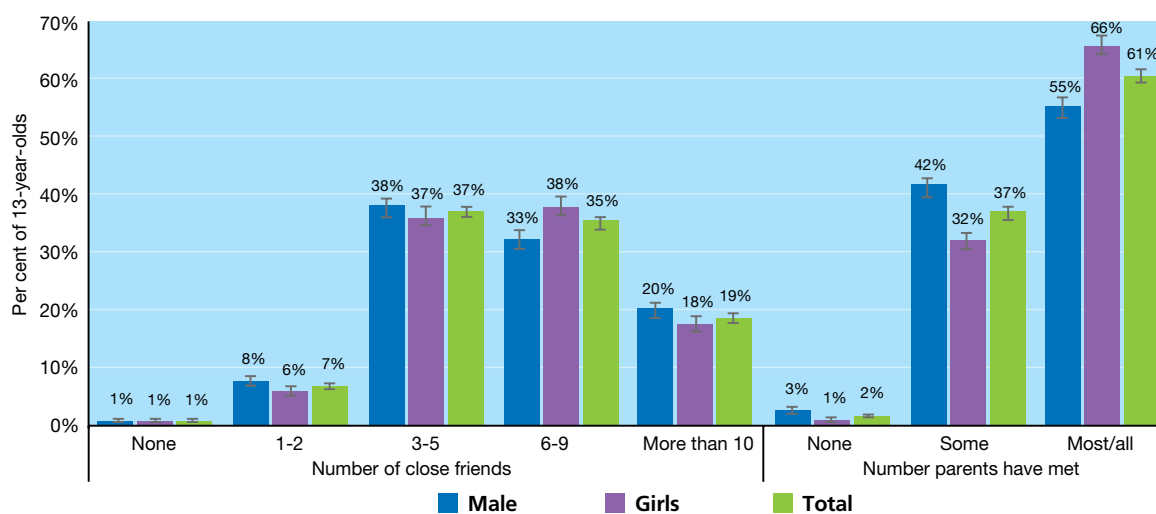
9.2 FRIENDSHIP AND PEER INTERACTION

The relationships and social contacts of early adolescence differ from those of childhood. While family relationships remain extremely important, the proportion of time that adolescents spend with persons outside the family increases, and extra-familial factors serve many of the functions that were previously the exclusive domain of the family (Collins and Laursen, 2004). Related to this is the development of a sense of independence that includes a degree of autonomy (both behavioural and emotional) from parents. Parallel with independence is the development of interdependence that involves mutual support and influence of peers and friends. From all perspectives, therefore, the development of positive social contacts and relationships is very important for the 13-year-old.

9.2.1 FRIENDSHIP NETWORKS

The 13-year-olds were asked to indicate 'how many friends they normally hang around with'. The results are summarised in Figure 9.1. Seven per cent said 1-2; 37 per cent said 3-5; 35 per cent said 6-10 and 19 per cent said More than 10. Just under one per cent said that they had no friends at all. Gender differences were very small, with girls more likely to report six to 10 friends and boys more likely to report smaller numbers. The average number of friends is estimated at just over 6.3, there being no difference between boys and girls. Equally, there was no significant association between number of friends and number of children in the respondent's family home, family type or any of the measures of social advantage/disadvantage examined.

Figure 9.1: (a) Number of close friends and (b) whether or not parents have met them, classified by gender of the 13-year-old

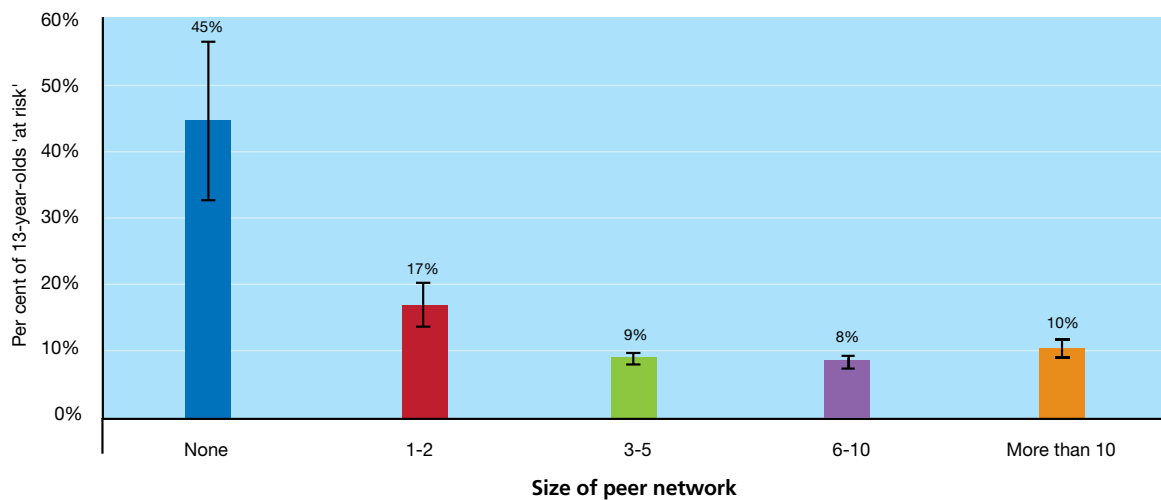


The friends of 13-year-olds are far from being a network that is independent of their families. Most young people reported that their parents had met their friends. The majority of 13-year-olds said their parents had met some or most of their friends, 37 per cent said they had met *some of them* and 61 per cent said *most or all of them*. Only two per cent said their parents had met none of their friends. Parents were more likely to have met the friends of girls, 66 per cent said their parents had met *most or all of them* compared to only 55 per cent among boys (Figure 9.1).

9.2.2 FRIENDSHIP NETWORKS AND SOCIO-EMOTIONAL WELL-BEING

The Strengths and Difficulties Questionnaire (SDQ), a broad screening measure of the 13-year-old's socio-emotional well-being, was completed by the 13-year-old's Primary Caregiver. The highest scorers on the Total Difficulties scale (the top 10 per cent) have been identified as being at risk of socio-emotional or behavioural problems (SEB, Goodman, 1997). Figure 9.2 shows the association between number of friends and those at risk of SEB problems.

Figure 9.2: Peer network size and being at risk of socio-emotional and behavioural problems (SDQ)



Note: In Figure 9.2 the group with no reported friends is small, at around 1%, as can be seen from Figure 9.1. Interpretation of the high presence of emotional difficulties in the group should be made with caution.

From the graph it is clear, but unsurprising, that those with no friends were substantially more likely to be at risk of SEB problems (45 per cent), than those with three or more friends (8-10 per cent). Thirteen-year-olds with just one or two friends were also more likely to be at risk (17 per cent). However, direction of causation cannot be ascertained here as having fewer friends may lead to emotional problems, but having emotional problems might also affect the ability to form or maintain friendships.

9.3 BULLYING AND VICTIMISATION: EXPERIENCES AND CONSEQUENCES

Bullying is repeated and intentional aggression against someone who cannot easily defend themselves (Olweus, 1999). It can take various forms – usually physical, verbal, or emotional – such as threatening, taunting, spreading rumours, pushing and kicking, and excluding. Smith et al. (2008) note that, more recently, cyber-bullying (bullying via mobile phones and the internet) has become an increasing problem. Bullying can be divided further into direct and indirect bullying. Direct bullying refers to verbal and physical behaviours conducted within the context of face-to-face interactions (hitting or threatening). Indirect bullying refers to actions that are not face-to-face, such as spreading rumours, excluding and manipulating friendship groups (Olweus, 1993, 1994; Brighi et al., 2012). The international literature suggests that boys tend to engage more in direct bullying while girls are more likely to engage in indirect bullying (Björkqvist et al., 1992; Rivers and Smith, 1994; van der Wal, de Wit and Hirasing, 2003). Other research suggests that boys are more prone to be both bullies and victims of bullying, especially in its physical expression, since girls are more likely to engage in situations of indirect bullying, such as teasing or gossip about peers (Hong and Espelage, 2012; Carbone-Lopez, Esbensen and Brick, 2010; Cook et al., 2010). Reports of bullying victimisation tend to decrease with age up to the end of secondary school (Sourander et al., 2000; Rigby, 2002).

Evidence from the literature indicates that being the victim of bullying is not a random event and can be predicted by both individual and family characteristics (Arseneault et al., 2010). Some of these factors are child maltreatment by parents (Shields and Cicchetti, 2001), domestic violence in the home (Baldry, 2003), parental depression (Beran and Violato, 2004) and low socio-economic status (Wolke et al., 2001). Other environmental factors that have been identified as being associated with victimisation are school characteristics such as overcrowding and measures of disadvantage (such as the number of children receiving free school meals (Barnes et al., 2006).



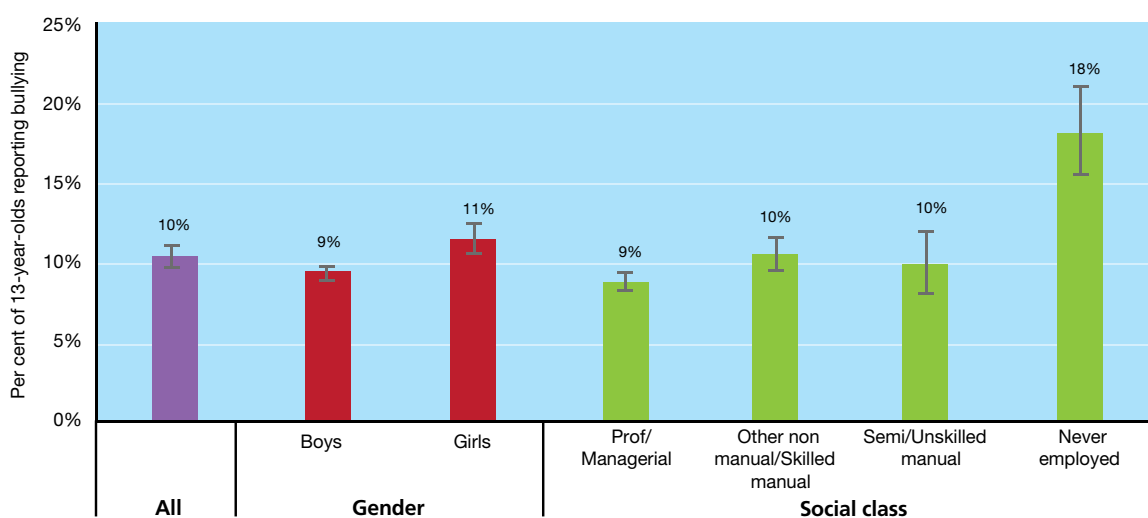
Bullying has been linked to a range of negative outcomes, including self-harm (McMahon et al., 2010) and other mental health problems, for which there is a growing body of evidence supporting a causal relationship (see meta-analysis by Moore et al., 2017).

In *Growing Up in Ireland*, both the Study Child and the Primary Caregiver were asked about the 13-year-old's experience of bullying in the course of their respective interviews. Particular attention was given to different forms of bullying (e.g. physical vs electronic bullying) as well as the perceived reason for such bullying (e.g. physical disability, ethnicity and so on). The study also focuses on the feelings that result from bullying (anger, fear, being upset).

9.3.1 FREQUENCY OF BEING BULLIED

About 10 per cent of the 13-year-olds reported having been bullied in the three months preceding their interview (Figure 9.3),⁴⁵ with no significant difference between boys and girls. There was, however, an association with family social class, with significantly higher levels among 13-year-olds in the most disadvantaged social group (i.e. *never employed*) – 18 per cent of young people in that category reported having been bullied. Further analysis indicated that, where parents reported worse physical conditions or lower levels of safety in their neighbourhood, 13-year-olds were significantly more likely to report being bullied.

Figure 9.3: Prevalence of being bullied (child report) classified by (a) 13-year-old's gender and (b) family social class



A slightly different approach to bullying was adopted in *Growing Up in Ireland* at nine years of age. First, the reference period for bullying changed between the surveys at age nine and at age 13. At nine years of age the reference period was *the last year*. Children were asked: *Thinking back over the last year would you say that anyone (either a child or an adult) picked on you?* The term *picked on* was used at that age, rather than the explicit term *bully*. At 13 years of age the respondents were asked: *Have you been bullied in the last three months?* Because of these differences in wording and reference period, caution is warranted in comparing the two. At nine years of age, 40 per cent of the Study Children reported being 'picked on'. There was no difference in rates between boys and girls.

Higher rates of being bullied were recorded in Ireland in the ongoing Health Behaviour in School-Aged Children study than were reported in the *Growing Up in Ireland* study of children at age 13 (Gavin et al., 2014).

⁴⁵ The question wording was 'Have you been bullied in the past three months?' (Q42).

The HBSC involved children and adolescents self-completing a questionnaire on health and related issues in their classrooms. The question on bullying asked whether they had been bullied in school in the past couple of months. That study found that, among children aged 10-17 years, 24 per cent of boys and 27 per cent of girls reported having been bullied in school in *the last couple of months*. A higher proportion of younger children (36 per cent of those in third and fourth class) reported being bullied in the past couple of months compared to older children (HBSC, 2014). The comparability of the results is in some doubt because of the different methods of administration. The HBSC was self-completed by the children in school while the *Growing Up in Ireland* questionnaire was completed in the home. One possibility is that, despite the assurances of confidentiality, 13-year-olds completing the questionnaire at home were reluctant to disclose bullying that their parents did not know about.

Apart from the report by the 13-year-olds, the Primary Caregiver was asked whether or not their child had ‘... been a victim of bullying in the last three months’. At the aggregate level, the trends were very similar to those recorded by the 13-year-olds themselves. Parents reported that just over 10 per cent had been victims of bullying, with no statistical difference between males and females. As was observed in the reports of the 13-year-olds, parent reporting of being bullied was significantly more prevalent among those in the most disadvantaged social group.

There are differences evident between the parent and child reports at the individual level. Table 9.1 shows that, at the individual level, parents and children agreed that no bullying had occurred in 84 per cent of families and agreed that bullying *had* occurred in 4.3 per cent of families. However, in 5.6 per cent of cases, the 13-year-old reported bullying but the Primary Caregiver did not, and in six per cent of cases the reverse happened – the Primary Caregiver reported bullying but the 13-year-old did not. Therefore, in over half of the 10 per cent of cases where the 13-year-olds reported being bullied in the previous three months, the Primary Caregiver reported that bullying had not occurred. A similar pattern is found for bullying reported by the Primary Caregiver, but not by the 13-year-old. This suggests a number of possibilities. The Primary Caregivers might be unaware that their children are victims, they may have a different view as to what constitutes bullying, or the Primary Caregiver and young person may differ in their recall of when the bullying took place. The young person may also be withholding information about bullying from their parents. This discordance between the parental and children’s reports of being bullied could be a cause of concern. The lack of awareness or misperception of bullying by parents and main caregivers may, inadvertently, result in even greater isolation of the 13-year-old and mean that the supports that are so important in such circumstances are not being put in place.

Table 9.1: Relationship between parent’s and 13-year-old’s reports of bullying

		Child report of bullying in last 3 months		Total
		No	Yes	
Parent report of bullying in last 3 months	No	84.0%	5.6%	89.6%
	Yes	6.0%	4.3%	10.4%
	Total	90.1%	9.9%	100.0%

Table 9.2 focuses on the frequency of the bullying among those 13-year-olds who reported that it had occurred (10 per cent of the total). It indicates that nearly half of those who had been bullied in the preceding three months said it had happened *once or twice*, but over 20 per cent said that it happened several times a week. Boys who had been bullied were somewhat more likely to say that it happened once a week or more often (43 per cent) than were girls (32 per cent).



Table 9.2: Frequency of bullying classified by gender

Frequency of bullying among the 10 per cent of 13-year-olds reporting bullying	Males	Females	Total
	Per cent		
Once or twice	44.1%	51.2%	47.7%
2-3 times a month	13.4%	16.9%	15.1%
About once a week	19.9%	13.1%	16.5%
Several times a week	22.6%	18.8%	20.7%
Total	100.0	100.0	100.0

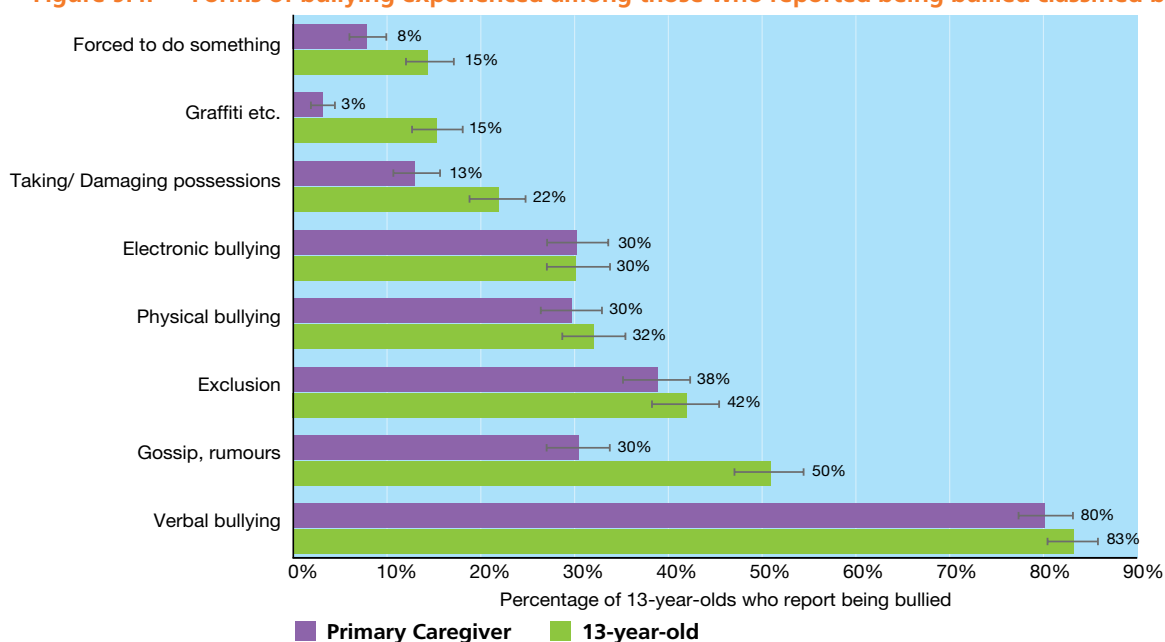
Note: the base here is the 10 per cent of 13-year-olds who reported having been bullied in the last three months. The number of cases is small (331 males and 320 females) and gender differences are within the margin of error (and not statistically significant, apart from 'about once a week').

9.3.2 THE FORM OF AND PERCEIVED REASONS FOR BULLYING

Those who had been bullied were asked to say what form the bullying took, from a pre-coded list of different types. A similar question was put to the Primary Caregivers. Respondents were given the option of indicating more than one form. Figure 9.4 shows that, broadly speaking, the types of bullying identified by the 13-year-olds and the parents were quite similar. Verbal bullying was the most common type (identified by 83 per cent of the 13-year-olds and 80 per cent of the parents). Exclusion, gossip, physical bullying and electronic bullying were in the top five types for both parents and 13-year-olds. A number of types of bullying were significantly more likely to be identified by the 13-year-olds, however: gossip (50 per cent compared to 30 per cent of parents), taking or damaging possessions (22 compared to 13 per cent), graffiti/ passing notes (15 compared to three per cent) and being forced to do something the 13-year-olds did not want to do (15 compared to eight per cent).

There were substantial gender differences with regard to five of the eight forms of bullying. Boys were more likely to have experienced physical and verbal bullying. In contrast, girls reported more gossip/ spreading rumours, exclusion and electronic bullying. These differences are largely consistent with the victimisation experiences reported in previous studies based on *Growing Up in Ireland* participants at age nine years, when verbal and physical bullying was more often reported by boys but exclusion was more frequent for girls (Williams et al., 2009).

Figure 9.4: Forms of bullying experienced among those who reported being bullied classified by gender



Note: the base here is the 10 per cent of 13-year-olds who report having been bullied in the last three months.

The 13-year-olds were shown 10 possible reasons for the bullying and asked to indicate from this list why it had happened to them. More than one reason might have been selected. Among those providing at least one reason, *jealousy* (43 per cent) and *physical appearance* (such as clothing, wearing glasses, height or weight – 46 per cent) were the most commonly perceived reasons for the bullying. *Class performance* (23 per cent) was also moderately important. In contrast, having a *physical disability* or a *learning difficulty* were perceived as factors in bullying in a relatively small number of cases, as were *not conforming to traditional gender roles* and *ethnicity*. However, while these reasons for bullying may have affected a relatively small number of children, the emotional impact may be quite profound for the individuals concerned.

9.3.3 FEELINGS ASSOCIATED WITH BEING BULLIED AND CONFIDING IN SOMEONE ABOUT IT

The respondents who indicated that they had been victims of bullying were asked about the feelings that this evoked. As with other aspects of bullying, there were some gender differences in emotional reactions. Among those responding on the feelings evoked by the bullying, a significantly higher percentage of girls said they were *upset a lot* by it (41 per cent compared with 24 per cent of boys). Boys, in contrast, were significantly more likely to *want revenge* (40 compared to 22 per cent of girls) or to *shrug it off* (30 compared with 18 per cent of girls).

When the victims of bullying were asked if they had told anyone about it, three-quarters (76 per cent) said that they had. Girls were significantly more likely than boys to have confided in someone about it (86 per cent compared to 66 per cent). Of those who provided details on whom they told, victims of bullying were most likely to confide in parents (84 per cent), a friend (79 per cent) and a teacher (43 per cent). Note that the bullying may have taken place outside the school, which may account for the lower percentage of 13-year-olds telling a teacher about it.

9.3.4 PERPETRATORS OF BULLYING

When the 13-year-olds were asked to record whether or not ‘... in the last three months have you bullied anyone?’, just 1.9 per cent admitted that they had. A slightly higher proportion of boys (2.39 per cent) than girls (1.49 per cent) admitted to being a bully perpetrator. Of the small number (just 142 cases) who said they had bullied someone, 79.4 per cent of these said it had happened once or twice; 8.5 per cent 2-3 times a month, 5.6 per cent about once a week and 6.6 per cent that it had happened several times a week.

Of those who had bullied others, the most common form by far was *verbal bullying* (86 per cent), which was more than twice as frequently reported as any other form.

Physical appearance was the main reason given for bullying (36 per cent), while two aspects of school were next most frequently mentioned: seeing someone as a *teacher’s pet* and *class performance/being seen as a star pupil* (30 per cent and 22 per cent respectively). *Jealousy* and *not conforming to gender roles* were mentioned by 17-21 per cent of those who reported bullying others. A variety of other reasons (*ethnicity/race/nationality/skin colour, religion, physical disability, and learning difficulty/disability*) were mentioned by approximately 10-12 per cent of those who admitted to bullying.

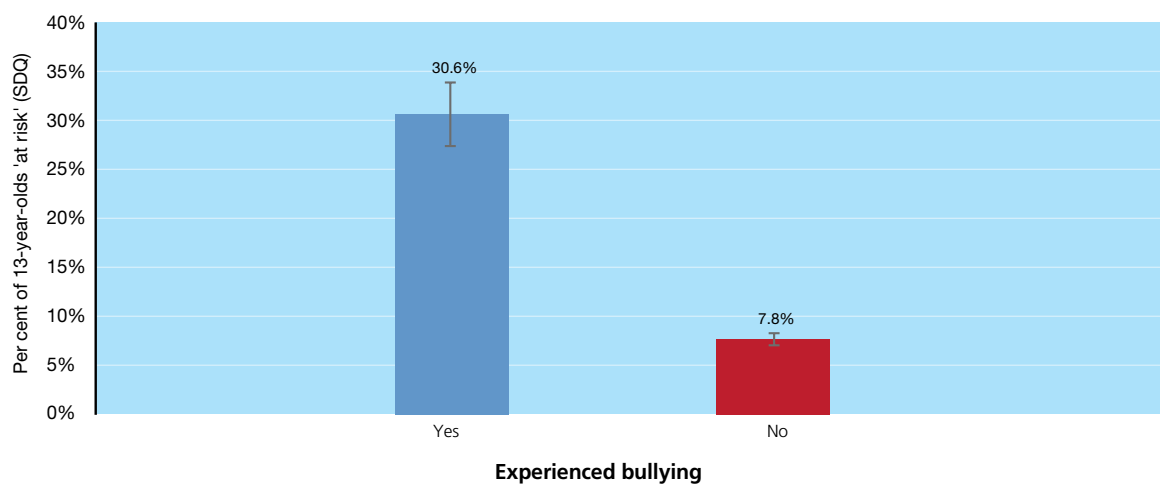
9.3.5 SOCIO-EMOTIONAL WELL-BEING AND BULLYING

Previous research points to a number of negative correlates of being bullied, including social isolation, depression, anxiety (Hawker and Boulton, 2000; Nansel et al., 2001; Wolke et al., 2001), low self-esteem and poor social skills (Egan and Perry, 1998). Arsenaault et al. (2010), in a review of the literature on the impact on adolescents, report that being bullied is associated with mental health problems, including self-harm, violent behaviour and psychotic symptoms. To explore the socio-emotional characteristics of those who were either victims or perpetrators of bullying, this section briefly considers the scores of both groups on the SDQ Total Difficulties scale, an indicator of being at risk of socio-emotional and behavioural difficulties based on items completed by the Primary Caregiver.



Figure 9.5 summarises the average SDQ scores according to whether or not the 13-year-old had indicated that s/he had been bullied. Those who reported having been bullied in the three months preceding the interview were significantly more likely to have heightened overall difficulties (31 per cent) than those who had not (eight per cent). The scores clearly indicate that victims of bullying are at significantly higher risk of heightened socio-emotional and behavioural problems. Note that the associations in the graph do not imply causality between being a victim of bullying and socio-emotional difficulties or, indeed, that this is the only characteristic associated with the higher scores for the young people in question. Furthermore, poor conduct or problems with peer relationships (two of the SDQ subscales) could be causally linked to bullying in themselves. There are also likely to be confounding characteristics, which must await further investigation in more detailed analysis.

Figure 9.5: Relationship between being bullied and 'at risk' scores on the SDQ



Although only small numbers were involved, bullying perpetrators were significantly more likely to have heightened problems, as measured by the SDQ. A total of 32 per cent of this group were in the 'at risk' category on the Total Difficulties score. This compares with only nine per cent for other 13-year-olds.

9.4 SELF-CONCEPT

Young people's sense of themselves becomes more differentiated as they approach adolescence. According to Harter (2006), children describe themselves in terms of a relatively small number of domains, whereas adolescents differentiate their scholastic achievements to a relatively greater degree, as well as their benchmarks for social competence. Because of this increasingly differentiated view of themselves, 13-year-olds have the capacity to think of themselves in conflicting ways, depending on the context and circumstances. Harter notes that there is a desire to bring the attributes of the self into harmony with each other. However, this can be problematic, since young people are often required to act in different, sometimes even contradictory, roles, so that achieving self-coherence may be challenging.

Studies have examined the impact of age on self-concept, though the results have not been entirely consistent. As Crain (1996) points out, the results depend on which sub-domains are examined. For example, some studies have found that self-perception of physical appearance declines in late childhood but recovers somewhat in middle adolescence (e.g. Cole et al., 2001). In contrast, following two cohorts from nine to 17 years, Cole et al. found that there was a steep rise in self-perception of popularity in pre-adolescence before a levelling-off in the later teenage years.

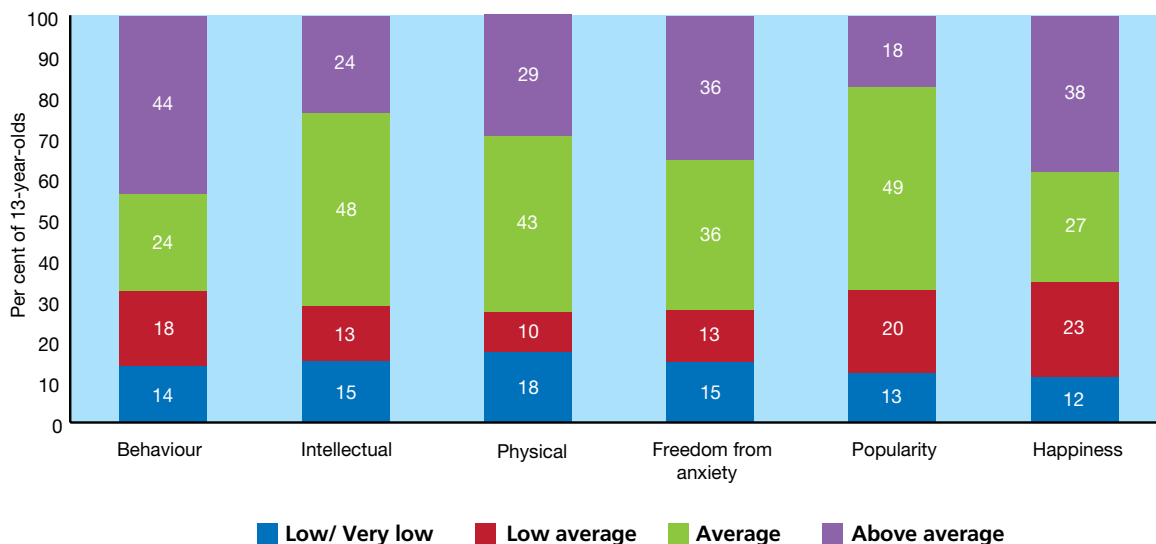
The differences in self-concept associated with gender have received substantial attention in the literature. A number of studies from different countries have found that adolescent males score more highly on global self-concept than females (e.g. Cole et al., 2001). A study of adolescents in Northern Ireland (Cairns et al., 1990) found that females scored significantly lower than males on global self-concept. As might be expected, when specific domains are taken into account, gender emerges as an important moderating factor. In a number of studies, it has been found that boys have higher self-perceptions relating to physical appearance, while girls have higher opinions of themselves in socially-related domains (e.g. Shapka and King, 2005).

The Piers-Harris II scale was used in *Growing Up in Ireland* to provide a quantitative assessment of 13-year-olds' reported self-concept. As well as providing a Total Score for self-concept, the test targets six domains, as follows:

- *Behavioural adjustment*: the admission or denial of problematic behaviours – e.g. *I get into lots of fights; I am a good person*
- *Intellectual and school status*: reflecting the 13-year-old's perception of his/her abilities with respect to cognitive and academic tasks – e.g., *I am smart; I forget what I learn*
- *Physical appearance and attributes*: concerned both with the perception of appearance and other features such as leadership and ability to express ideas – e.g. *I am good-looking; my looks bother me*
- *Freedom from anxiety*: focusing on perceptions of feelings including fear, unhappiness, shyness and feeling left out of things – e.g. *I like being the way I am; I am left out of things*
- *Popularity*: concerned with the perception of the 13-year-old's own functioning with peers – e.g. *I am unpopular; I have many friends*
- *Happiness and satisfaction with life*: a measure of the perception of how happy they see themselves and their satisfaction with life – e.g. *I am a happy person; I wish I were different*

Based on norming thresholds produced by the test developers, each of the subscales (including the Total Score) is broken into six groups: *very low*, *low*, *low average*, *average*, *high average* and *high*. Figure 9.6 shows the percentage of 13-year-olds in each group for all six subscales. It shows that the 13-year-olds in *Growing Up in Ireland* were most likely to rate themselves as above average in their behaviour and least likely to rate themselves as above average in popularity. Furthermore, 65 per cent rated themselves as average or above in terms of their happiness.

Figure 9.6: Distribution of scores of 13-year-old's self-concept subscales

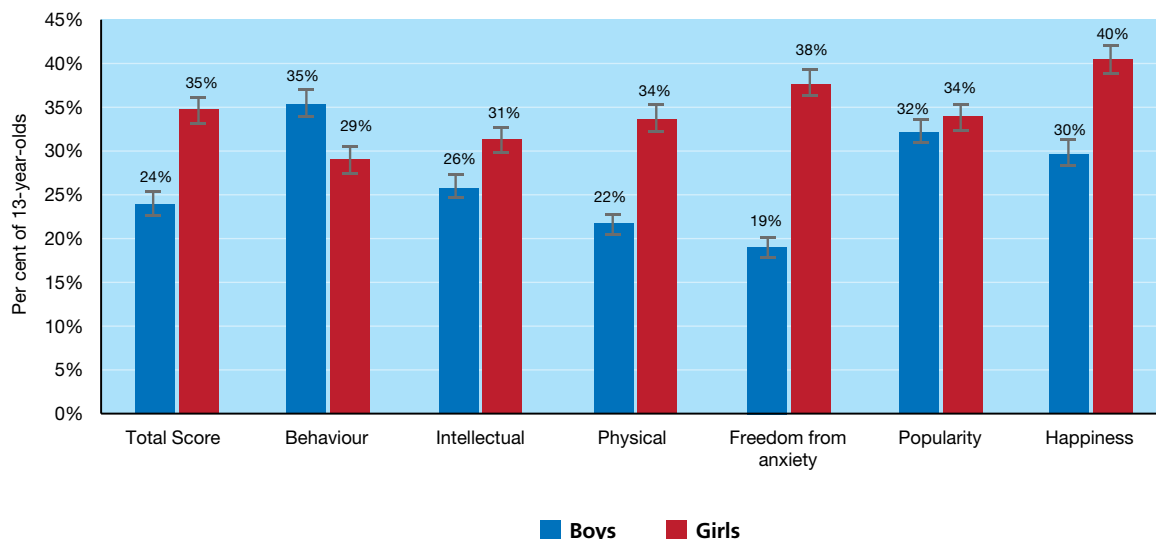




While the 13-year-olds were more likely to rate themselves as average or above across the different subscales, between one-quarter and one-third of them were in the below average category on the six self-concept sub-scales – that is, they had lower self-esteem. For example, 35 per cent rated themselves as below average in terms of their happiness, 33 per cent reported being below average in popularity and 28 per cent indicated they were below average intellectually. Given these sizeable proportions, the following analysis concentrates on those with low self-esteem, exploring some of the correlates of low self-concept across different domains.

One of the most striking differences in the current analysis was the difference between the genders for both overall self-concept and across the six subscales, as illustrated in Figure 9.7. A significantly higher percentage of girls (35 per cent) compared to boys (24 per cent) recorded lower self-concept overall, and on four of the subscales: ‘intellectual and school status’, ‘physical appearance and attributes’, ‘freedom from anxiety’ (the largest gender difference) and ‘happiness and satisfaction with life’. The gender difference on the popularity subscale was not significant. It is particularly interesting that more girls fall into the below-average category with regard to school and intellectual status (31 per cent) compared to boys (26 per cent), even though girls generally perform better in school.

Figure 9.7: 13-year-old’s self-concept by gender – percentage below average



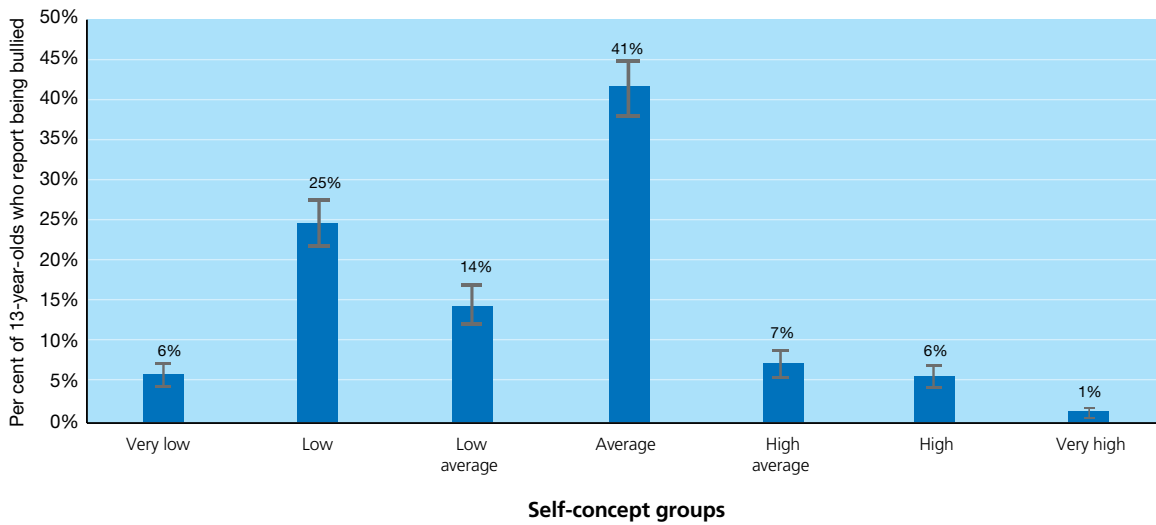
9.4.1 VARIATIONS IN SELF-CONCEPT WITH BACKGROUND CHARACTERISTICS

Primary Caregiver’s education is a useful general indicator of advantage or disadvantage. There is very little significant variation in self-concept at 13 years of age by Primary Caregiver’s education – with the exception of Intellectual and School Status (as was seen in Chapter Five), where analyses indicated that higher Primary Caregiver education is associated with a lower likelihood of 13-year-olds rating themselves as below average.

9.4.2 SELF-CONCEPT AND EXPERIENCE OF BULLYING

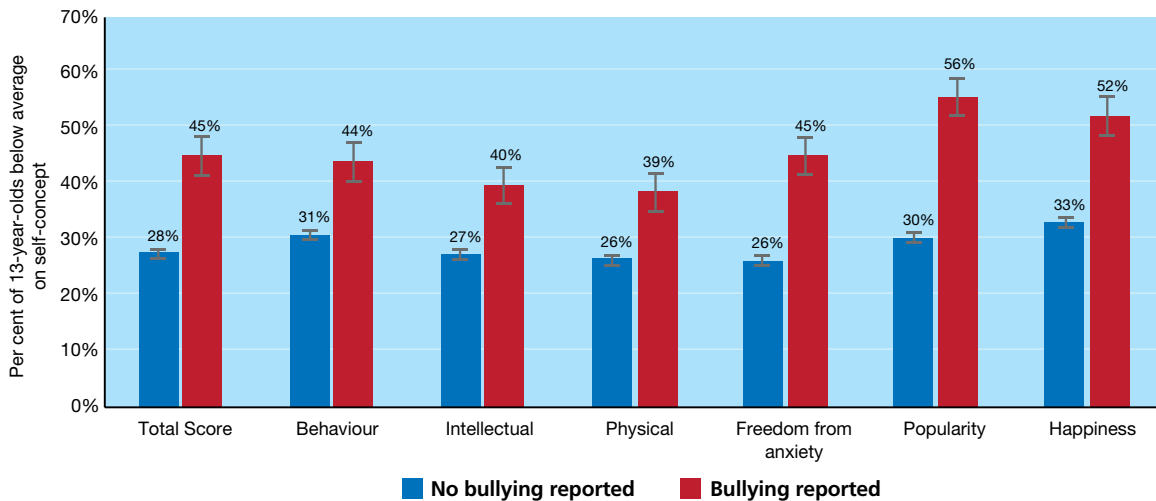
Figure 9.8 indicates that those who had been bullied were much more likely to have low self-concept, with only 15 per cent recording above average self-esteem. In fact, 45 per cent of those who had been bullied were below average in terms of their overall self-concept, compared to 28 per cent of those who had not been bullied (Figure 9.8).

Figure 9.8: Overall self-concept of 13-year-olds who had been bullied



Furthermore, significant and substantial differences between bullied and non-bullied were very evident across the six self-concept domains. For example, just over 52 per cent of those who had been bullied had a below-average score on the ‘happiness and satisfaction with life’ subscale compared to 33 per cent of those who had not been bullied, while more than half (56 per cent) also rated themselves as below average on the popularity subscale, compared to 30 per cent who had not been bullied (Figure 9.9.). These findings in relation to low self-esteem among victims of bullying are highly consistent with the literature in this area (e.g. Egan and Perry, 1998).

Figure 9.9: Percentage of 13-year-olds with a below-average self-concept, classified by whether or not they had been a victim of bullying





9.5 MOOD AND FEELINGS – BULLYING AND SELF-ESTEEM

The World Health Organisation (WHO, 2011) predicts that, by 2030, depression will be the number one global health problem. In Ireland, the My World Survey collated data on over 14,000 young people aged 12-25 years, using a variety of scales to determine both positive and negative mental health domains. The authors found that over one-third of young people were outside the normal range for both depression (35 per cent) and anxiety (34.5 per cent), and that psychological difficulties increased among young people over time (Dooley and Fitzgerald, 2012). The Challenging Times study in North Dublin provided longitudinal data on the prevalence of mental ill-health among Irish adolescents between the ages of 12 and 15 years at the first wave and between 19 and 23 at the second wave (Lynch et al., 2004). Results showed that the prevalence of diagnosable mental disorders was 15.6 per cent. A follow-up study with the sample at age 19-24 years found a prevalence for current mental disorder of 19.5 per cent, with a lifetime prevalence rate of 55.3 per cent of mental ill-health (Cannon et al., 2013).⁴⁶

Although depressive disorders are relatively common in children and adolescents, many depressed youths do not seek or receive either psychiatric evaluation or treatment (see review in Wisdom, Clarke and Greene, 2006). Without effective treatment, depression can leave young people with increased vulnerability to recurring depressive episodes, impaired occupational functioning in the future (Geller et al., 2001) and lowered life satisfaction. Depression in childhood and adolescence has also been linked to antisocial behaviour, poorer school performance (e.g. Merry et al., 2004), substance abuse (Rao et al., 1999) and withdrawal from family and friends. Several studies show higher levels of depression among females than males across most of the lifespan, beginning at some point in adolescence and increasing into later adolescence (e.g. Kessler et al., 1994; Nolen-Hoeksema, 1990; Piccinelli and Wilkinson, 2000; Weissman et al., 1999). The higher prevalence among females has also been found in Irish research (Watson and Maître, 2014; see also the greater levels of distress found among women than men in *Healthy Ireland*, 2016).

In *Growing Up in Ireland* the Short Mood and Feelings Questionnaire (SMFQ) (Angold et al., 1995) measured depressive symptoms among 13-year-olds. This is a brief self-report measure that focused on affective and cognitive symptoms, such as feeling miserable or not enjoying anything. While cut-off points are commonly used in research using the SMFQ, there is currently no agreement as to which particular cut-off point should be used to indicate a heightened risk of depression.⁴⁷ The top decile (which is also the score that is one standard deviation above the mean) is adopted as a threshold, as is often useful with similar scales. This is not intended as a diagnosis of clinical depression, however, but rather as identifying the group with the highest risk of depressive symptoms.

9.5.1 GENDER AND DEPRESSIVE SYMPTOMS

Overall, as discussed above, when the top decile is taken, about one in 10 *Growing Up in Ireland* participants reported depressive symptoms at age 13. In terms of gender differences, boys were significantly less likely (nine per cent) than girls (12 per cent) to be categorised as having depressive symptoms, a finding that reflects the well-established findings around gender differences in this area.

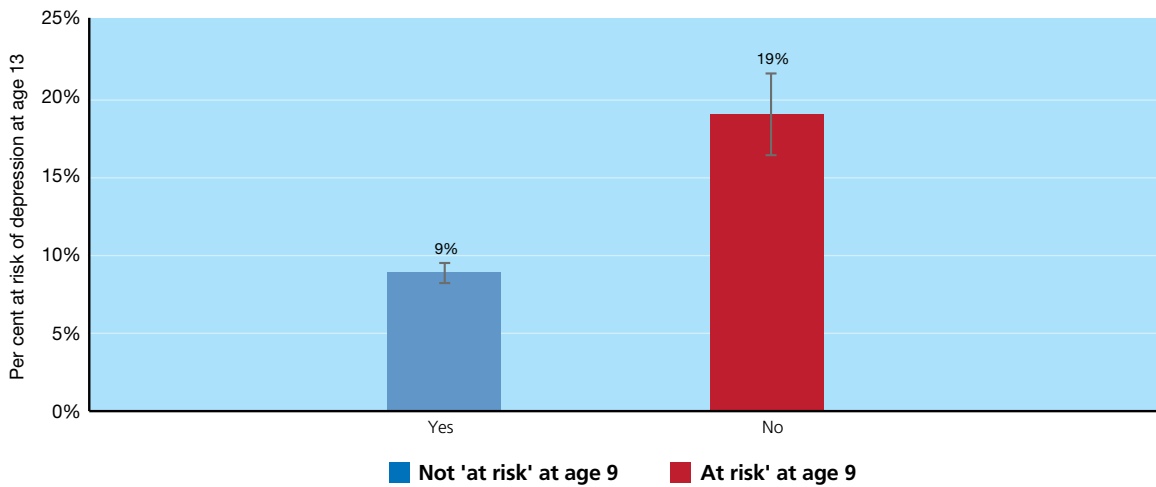
9.5.2 SOCIO-EMOTIONAL AND BEHAVIOURAL DIFFICULTIES AT 9 AND DEPRESSIVE SYMPTOMS AT 13

According to the parent-reported SDQ scores at age nine, nine-year-olds in the 'at risk' range (top 10 per cent) of the SDQ Total Difficulties score were more likely to report depressive symptoms at 13 (19 per cent of those 'at risk' at age nine compared to nine per cent of those not 'at risk').

⁴⁶ Lifetime prevalence refers to ever having had mental ill-health.

⁴⁷ The original authors used a cut-off point of eight, but this was with a clinical sample.

Figure 9.10: Percentage of 13-year-olds with depressive symptoms by 'at risk' SDQ scores at age 9



9.5.3 BULLYING AND DEPRESSIVE SYMPTOMS

Figure 9.11 illustrates the relationship between bullying and depressive symptoms. Both perpetrators and victims of bullying are at greater risk of depressive symptoms, although with the analysis here it is not possible to say whether bullying precedes the symptoms or *vice versa*. A significantly higher percentage of bullying victims had depressive symptoms (22 per cent compared to nine per cent of those who had not been bullied). Furthermore, the chart shows that a higher percentage of bullying perpetrators also reported depressive symptoms – 43 per cent compared to 10 per cent who had not bullied. Note, however, that bullying perpetrators are a very small group – about two per cent of 13-year-olds.

Figure 9.11: Percentage of 13-year-olds with depressive symptoms by whether or not they were a victim or perpetrator of bullying

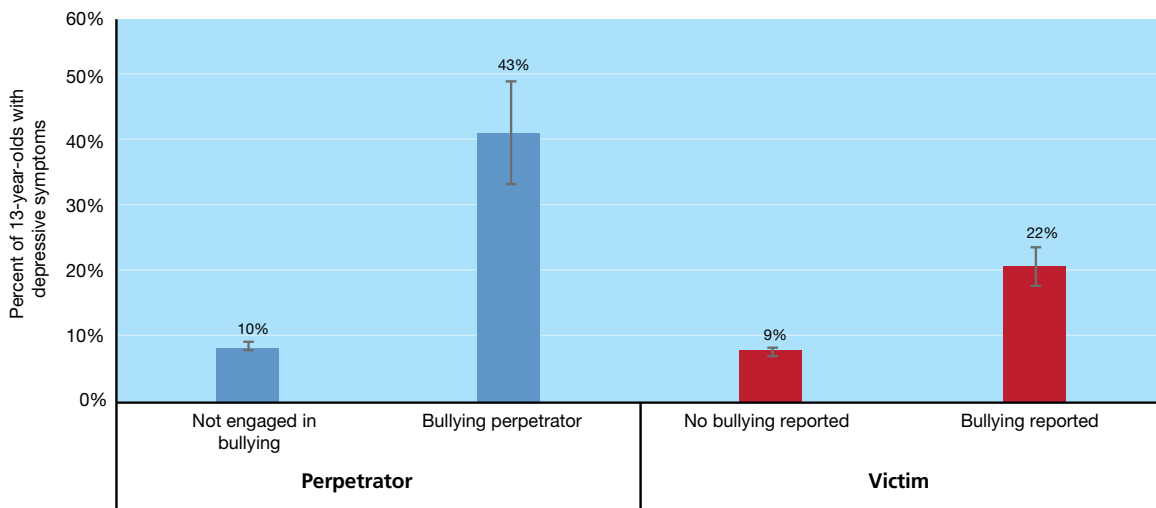
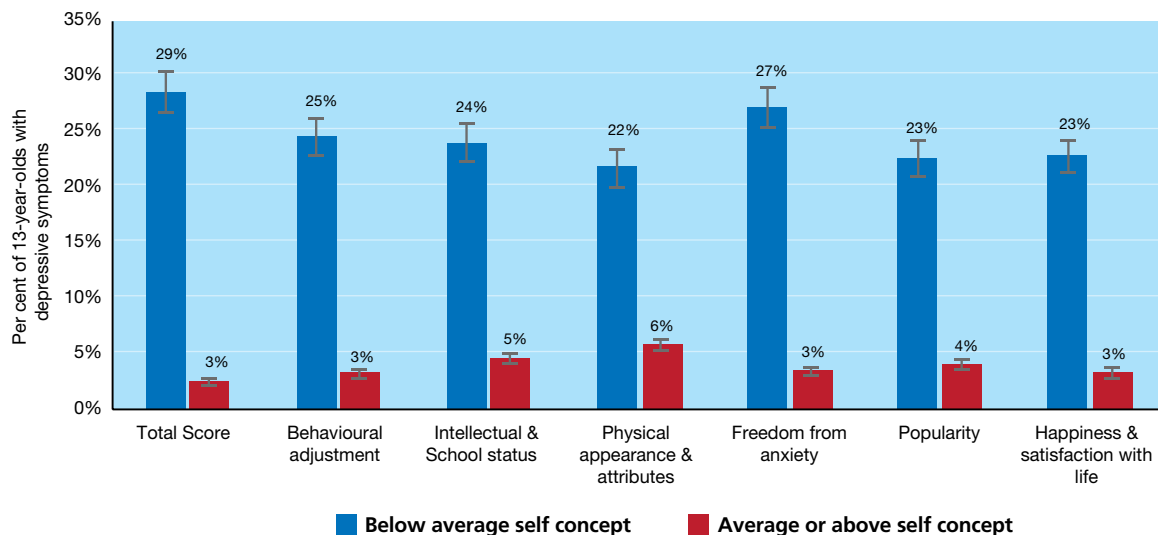


Figure 9.12 presents details on the association between below-average self-concept and depressive symptoms. In general, much higher proportions of 13-year-olds who rated themselves as having below-average self-concept also displayed symptoms of depression, and this was true in respect of the Total Score as well as across all six subscales of the Piers-Harris. For instance, on the Total Score, 29 per cent of those



with below-average self-concept reported high levels of depressive symptoms compared to just three per cent of those with above-average self-concept. Same-source bias should be considered, however, as both measures were self-reported by the child: part of the association may be due to a tendency on the part of the 13-year-old to adopt an overall positive or negative view of themselves and their experiences.

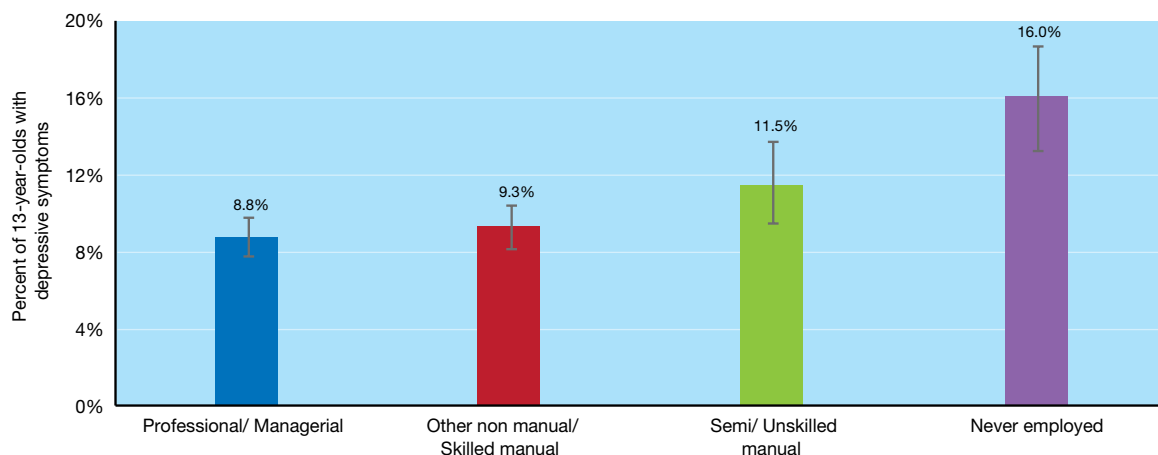
Figure 9.12: Percentage of 13-year-olds who report depressive symptoms by whether self-concept score is above or below average



9.5.4 FAMILY CHARACTERISTICS AND DEPRESSIVE SYMPTOMS

There was some evidence to indicate that 13-year-olds in the most disadvantaged social class category (never employed) were significantly more likely to report depressive symptoms – 17 per cent compared to their peers in other social classes (9-12 per cent, see Figure 9.13). Although some research in this area also points to the link between parent education and adolescent depressive symptoms (e.g. Jackson and Goodman, 2011), this association was not evident in the current data.

Figure 9.13: Percentage of 13-year-olds with depressive symptoms by family social class



9.6 SUMMARY

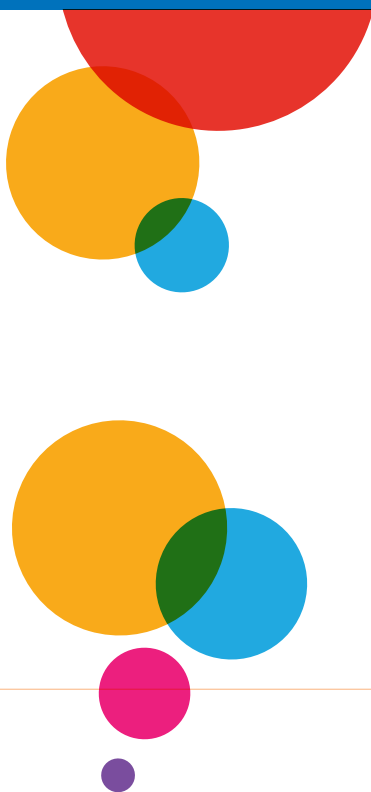
The focus in this chapter has been on peer relationships and their association with the socio-emotional and behavioural well-being of the 13-year-old as well as the presence of depressive symptoms. The main findings of the chapter are the following:

- Most 13-year-olds report having either between three and five friends (27 per cent) or between six and 10 friends (35 per cent), with 19 per cent having more than 10 friends. In most cases, parents had met all of their friends. Having three or more friends is associated with a reduced risk of being vulnerable to socio-emotional and behavioural problems.
- About 10 per cent of 13-year-olds reported having been bullied in the three months prior to the interview and about two per cent report having bullied others. The levels of having been bullied were the same for males and females. Having been bullied was associated with a greater risk of socio-emotional difficulties and with lower self-concept.
- Most 13-year-olds had a positive self-concept; 65 per cent rated themselves at or above average in happiness and 68 per cent rated themselves at or above average in popularity. Boys had a more positive self-concept than girls; 35 per cent of girls rated themselves below average overall compared to just 24 per cent of boys. Those who had been bullied had a lower self-concept (45 per cent below average overall).
- Depressive symptoms in 13-year-olds were more common among girls than boys (12 per cent and nine per cent, respectively, in the top decile of the depressive symptoms scale) and higher among those who had experienced bullying in the previous three months (22 per cent) and those who had socio-emotional and behavioural difficulties at age nine (19 per cent).



Chapter 10

ANTISOCIAL AND RISKY BEHAVIOURS AMONG 13-YEAR-OLDS



10.1 INTRODUCTION

This chapter focuses on a range of antisocial and risky behaviours engaged in by 13-year-olds. It is based on the responses of both the 13-year-old and the Primary Caregiver.

The questions asked of the 13-year-olds themselves included antisocial behaviours ranging from not paying the correct fare on a bus to serious injury of another person, theft of a car, or arson. The questions were developed by researchers in the Edinburgh Study of Youth Transitions (McAra and McVeigh, 2007) and were also used in the Belfast Youth Development Study (McCrystal et al., 2003) with 13-year-old children.

The antisocial behaviours recorded by the Primary Caregiver formed a scale of Conduct Disorder (CD), a disorder of childhood and adolescence, associated with rule-breaking and aggressive or destructive behaviours on the part of the 13-year-old. It is estimated that about 40 per cent of individuals with CD persist in their behaviour into later life (Gelhorn, et al., 2007). The items measuring CD include behaviours such as aggression and cruelty to other people or animals, damage to property, theft from home, school or shops, and behaviours that conflict with parental authority.⁴⁸ These items tap symptoms only and are not intended to diagnose any child with a psychiatric condition. Individual CD criteria have also been found to differentially predict severity and persistence of antisocial behaviour, with victim-oriented and aggressive behaviours being more predictive of persistence (Gelhorn, Sakai et al., 2007).

In the next section, antisocial behaviour among 13-year-olds is discussed, both in terms of what is understood from literature in the area and in terms of its prevalence among the *Growing Up in Ireland* sample at age 13. In section 4.3, risky behaviour of other types was examined: smoking, drinking and illicit drug-taking. Section 4.4 summarises the results of the analyses in this chapter.

10.2 ANTISOCIAL BEHAVIOURS AMONG 13-YEAR-OLDS

Antisocial behaviour in adolescence is important not only in its own right but also as an index of future functioning and of behaviour in adulthood (Murray and Farrington, 2010). Some rebelliousness can be thought of as experimentation and is relatively common during adolescence, especially in the mid- to later teenage years. For some young people, consistent participation in problematic behaviours negatively affects their family, academic, social and personal functioning. Some evidence suggests that an increasing proportion of young people engage in antisocial behaviour during adolescence (Moffitt, 1993). Using data from the National Youth Survey (NYS), Elliot and Huizinga (1983) indicate that violent offending almost always begins in the adolescent years. On the other hand, the majority of those involved in antisocial behaviour during adolescence do not go on to become adult offenders (Moffitt, 1993; Stattin and Magnusson, 1991; Fergusson et al., 2000; Eklund and Klinteberg, 2006).

It has been argued that one needs to distinguish between aggressive and non-aggressive antisocial behaviours (Loeber and Stouthamer-Loeber, 1998). Adolescents displaying both forms tend to have a more severe pattern of antisocial behaviour compared to those displaying only non-aggressive types (Loeber and Schmalting, 1985; Farrington and Loeber, 2000).

Gender has been identified as an important factor in antisocial activities. Studies from Europe, Canada, the US and New Zealand have all found that girls exhibit lower levels of aggression than boys (Dodge, Coie and Lynam, 2006). Stanger, Achenbach and Verhulst (1997) found boys to be more aggressive than girls at every age from four to 18, using the aggression subscale from the Child Behaviour Checklist (Achenbach and Rescorla, 2001). These findings also hold for antisocial behaviour (as opposed to specifically aggressive behaviour). Major studies such as the Dunedin and Christchurch Studies have both found higher antisocial behaviour scores among males from ages five to 21 (Moffitt, Caspi, Rutter and Silva, 2001). Antisocial

⁴⁸ These items were taken from the DSM IV classification of 'Conduct Disorder'.



behaviour in adolescence is important not only in its own right but because it is an important predictor of future behaviour in adulthood (Murray and Farrington, 2010). Offending trajectories for girls have been found to be half that of boys from ages eight to 20 (Fergusson and Horwood, 2002). While it is well established that males engage in more delinquent and criminal acts than females (Dodge, Coie and Lynam 2006), some studies suggest that the gender gap in offending may be decreasing, with female offences becoming more frequent and possibly more aggressive (for example, Snyder, 2004). Beyers, Bates, Pettit and Dodge (2003) suggest that significantly higher risk factors for conduct problems among children and young people are found in families characterised by, among other things, poverty, lower levels of parental education, higher residential mobility and one-parent structures. However, there is evidence that social disadvantage and deprivation itself has only a modest direct influence on criminal/delinquent behaviour, contrary to what is assumed by most commentators. Deprivation and environmental decay are important parts of the social setting of families since it is likely to be much more difficult to become an effective parent if things such as time, energy, money, living space, books, shops and stimulating play facilities are lacking. Hence, although most children experiencing deprivation grow up to be responsible citizens, social deprivation may increase the risk of criminal or delinquent behaviour by making it difficult for families to function effectively (Smith, 2004f).

10.2.1 Prevalence of antisocial behaviour among 13-year-olds – the parent’s perspective

To measure Conduct Disorder (CD) among 13-year-olds, the Primary Caregiver was asked in the main interview to indicate the frequency with which their child had engaged in each of 11 behaviours.⁴⁹ They include items associated with cruelty and aggression, such as: ‘often starts fights or bullies, threatens or intimidates others’, ‘deliberately damaging property’ and ‘stealing from home, school or shops’. Some of the items refer to behaviours that conflict with parental authority, such as: ‘has stayed out at night despite parental prohibitions’ and ‘has run away from home overnight at least twice while living in the parental home’.

The results of these Primary Caregivers’ reports, analysed by the 13-year-old’s gender, are outlined in Table 10.1, which shows the percentage of boys and girls who engaged in these kinds of behaviours and the 95% confidence interval around the percentages.⁵⁰ In general, these indicate very low prevalence levels for CD and antisocial behaviours, based on the information provided by the Primary Caregiver. The most frequently occurring was ‘fighting, bullying, threatening or intimidating others’. This was mentioned by 9.0 per cent of respondents.⁵¹ It was followed by ‘physical cruelty to other people’ (mentioned by 2.4 per cent of Primary Caregivers); ‘deliberate damage to property’ and ‘lying to obtain goods or favours (i.e. ‘cons’ others)’ – each mentioned by two per cent of respondents – and ‘truanting’ (1.2 per cent). Less than one per cent of 13-year-olds were reported by their Primary Caregivers as having participated in behaviours such as ‘staying out at night despite parental prohibitions’ (0.8 per cent) and ‘having used a weapon that could cause serious physical harm to others (a bat, brick, broken bottle, knife)’, at 0.7 per cent. Physical cruelty to animals, breaking into someone else’s house, building or car, and running away from home overnight at least twice were even rarer.

In line with trends identified in the literature, the results are strongly gendered. Where prevalence levels are sufficiently high as to allow a breakdown by gender, in general boys were more likely to have participated in the behaviours in question. The gender differences are statistically significant for starting fights/intimidation, destroying/damaging property, lying to obtain goods/favours and truanting from school.

⁴⁹ These items are an extension of the set used in the interview at nine years of age and were taken from the DSM IV classification of Conduct Disorder.

⁵⁰ The figures in parentheses in the table are the 95 per cent confidence intervals for the percentage estimates. These allow the reader to identify statistically significant differences in prevalence levels between boys and girls.

⁵¹ It is noted in Chapter Nine that the prevalence of bullying reported by Primary Caregivers was 10 per cent, almost identical to the prevalence of this item in the Conduct Disorder scale. The detailed questions on bullying and the 11 items in the CD scale were administered by the interviewer at very different times in the Primary Caregiver questionnaire.

Table 10.1: Percentage of 13-year-olds engaging in antisocial behaviour at least once in last year, by 13-year-old's gender

	Male	Female	All 13-year-olds
Often starts fights or bullies, threatens or intimidates others	10.0% (9.07 - 10.97)	7.9% (7.02 - 8.76)	9.0% (8.33 - 9.62)
Has used a weapon that could cause serious physical harm to others (e.g. a bat, brick, broken bottle, knife)	*	*	0.70% (0.48 - 0.85)
Has been physically cruel to other people	2.7% (2.16 - 3.18)	2.1% (1.63 - 2.56)	2.4% (2.04 - 2.73)
Has been physically cruel to animals	*	*	*
Deliberately destroyed or damaged property	2.5% (2.04 - 3.04)	1.5% (1.13 - 1.92)	2.0% (1.72 - 2.36)
Has broken into someone else's house, building or car	*	*	*
Has lied to obtain goods or favours (i.e. 'cons' others)	2.6% (2.06 - 3.07)	1.4% (1.02 - 1.78)	2.0% (1.68 - 2.31)
Has stolen items of value without confronting a victim (e.g. shoplifting, but without breaking and entering)?	*	*	0.6% (0.44 - 0.8)
Has stayed out at night despite parental prohibitions	*	*	0.8% (0.63 - 1.04)
Has run away from home overnight at least twice while living in parental home (or once for a lengthy period)?	*	*	*
Has truanted from school	*	*	1.2% (0.97 - 1.47)

* Insufficient numbers to disaggregate. The figures in parentheses are the 95 per cent confidence intervals for the percentage estimates.

Table 10.2 shows the distribution of scores across all 13-year-olds. This, once again, emphasises the low prevalence and low intensity of the behaviours in question. Only 12 per cent of 13-year-olds were reported by their main caregiver as having engaged in any of the antisocial behaviours in question. A further eight per cent were recorded as having engaged in just one of the behaviours.

Table 10.2: Number of Conduct Disorder items engaged in by 13-year-olds by gender, based on Primary Caregiver's reports

	Zero	1	2	3+
Male	86.4%	9.0%	2.5%	*
Female	89.6%	7.6%	1.7%	*
All 13- year-olds	88.0%	8.3%	2.1%	1.6%

* Note: based on cases where PCG answered all of the items.

10.2.2 Prevalence of antisocial behaviour – the 13-year-old's perspective

As well as the Conduct Disorder questions completed by the Primary Caregiver, a set of 15 questions on antisocial and delinquent behaviours was completed directly by the 13-year-old him/herself. They ranged in seriousness from 'not paying the correct fare on a bus' to 'carrying a knife or weapon'; 'using force or threats to get money or something else from someone' and 'hitting, kicking or punching someone to hurt



or injure them'. The questions were developed by researchers on the Edinburgh Study of Youth Transitions (McAra and McVeigh, 2007) and were also used in the Belfast Youth Development Study (McCrystal et al., 2003). The 13-year-old was asked to indicate how frequently s/he had participated in each of the behaviours in question in the last year, using four response categories: never; once; 2-5 times or six or more times (see Table 10.3.)

Table 10.3: Percentage of 13-year-olds engaging in antisocial behaviour at least once in last year (self-report), by 13-year-old's gender

	Male	Female	All 13-year-olds
Not paid the correct fare on a bus or train	14.8% (13.67 - 15.98)	13.3% (12.21 - 14.46)	14.1% (13.29 - 14.9)
Taken something from a shop or store without paying for it	9.3% (8.38 - 10.28)	4.9% (4.17 - 5.6)	7.2% (6.54 - 7.74)
Behaved badly in public so that people complained and you got into trouble	14.5% (13.37 - 15.66)	7.9% (7.06 - 8.86)	11.3% (10.55 - 12.02)
Stolen or ridden in a stolen car or a van or on a stolen motorbike	* *	* 	0.8% (0.57 - 0.98)
Taken money or something else that did not belong to you from school	8.0% (7.07 - 8.83)	3.8% (3.19 - 4.46)	5.9% (5.37 - 6.47)
Carried a knife or weapon with you in case it was needed in a fight	4.1% (3.48 - 4.77)	1.0% (0.63 - 1.28)	2.6% (2.2 - 2.93)
Deliberately damaged or destroyed property that did not belong to you	6.1% (5.29 - 6.84)	2.1% (1.66 - 2.62)	4.1% (3.67 - 4.59)
Broken into a house or building to steal something	* *	* 	0.7% (0.53 - 0.92)
Written things or sprayed paint on things that do not belong to you	6.8% (5.99 - 7.63)	4.8% (4.09 - 5.5)	5.8% (5.28 - 6.36)
Used force, threats or a weapon to get money or something else from somebody	1.4% (0.98 - 1.74)	* 	1.1% (0.85 - 1.33)
Taken money or something else that did not belong to you from your home without permission	15.1% (13.96 - 16.3)	12.1% (11.04 - 13.2)	13.7% (12.85 - 14.45)
Broken into a car or van to steal something from it	* 	* 	0.6% (0.44 - 0.8)
Deliberately set fire or tried to set fire to someone's property or a building	* *	* 	1.0% (0.75 - 1.2)
Hit, kicked or punched someone on purpose in order to hurt or injure them	24.7% (23.28 - 26.09)	9.9% (8.92 - 10.9)	17.4% (16.53 - 18.29)
Been involved in a serious physical fight where someone got badly hurt or needed to see a doctor	6.2% (5.39 - 6.96)	2.0% (1.57 - 2.5)	4.1% (3.67 - 4.6)

* Insufficient numbers to disaggregate. The figures in parentheses are the 95 per cent confidence intervals for the percentage estimates.

Based on their own responses, one of the most frequently recorded behaviours was the aggressive act of ‘hitting, kicking or punching someone in order to hurt or injure them’, recorded by 17.4 per cent of all 13-year-olds. Other aggressive acts, such as ‘carrying a knife or weapon’, ‘using force/threats’ and ‘being involved in a serious physical fight’ were recorded less frequently – by 2.6 per cent, 1.1 per cent and 4.1 per cent respectively. ‘Not paying the correct bus or train fare’ (14 per cent), ‘behaving badly in public’ (11 per cent), and theft from a shop (7.2 per cent), school (5.9 per cent) or home (13.7 per cent) were among the most frequently recorded behaviours. These figures were lower than those reported for a group of Australian adolescents on similar items, where 32 per cent reported fighting, 16 per cent reported theft and 14 per cent reported property damage (Smart et al., 2004).

Where the data supported breakdown by gender, it was clear that prevalence levels for each behaviour were higher among boys than girls, all significantly so and most by a considerable margin. For example, almost 25 per cent of boys compared to just 10 per cent of girls reported ‘hitting, kicking or punching someone in order to hurt or injure them’. Similarly, 9.3 per cent of boys compared with 4.9 per cent of girls recorded having ‘taken something from a shop or store without paying for it’, and 6.1 per cent of boys and 2.1 per cent of girls indicated that they had ‘deliberately damaged or destroyed property that did not belong to them’ (e.g. windows, cars, streetlights).

Table 10.4 shows the number of different kinds of antisocial behaviour engaged in by the 13-year olds, according to their own reports. The potential range of the scale is from 0 to 15. The table shows that 61 per cent of 13-year-olds reported not having engaged in any of the 15 antisocial activities – the figure being significantly higher for girls than boys (69 per cent and 54 per cent respectively).

Table 10.4: Number of kinds of antisocial behaviour engaged in by the 13-year-olds (self-reported), by gender

	Males	Female	Total
	<i>Per cent</i>		
Zero	54%	69%	61%
1	20%	18%	19%
2	10%	6%	8%
3	6%	4%	5%
4	4%	1%	2%
5	*	*	1%
6+	4%	2%	3%
Total	100%	100%	100%

Note: Based on data from 13-year-olds who answered all 15 items.

10.3 PREVALENCE OF RISKY BEHAVIOURS – SMOKING, DRINKING AND ILLICIT DRUG-TAKING

Researchers consistently find a strong association between illegal substance use and serious delinquency (Johnston, O’Malley and Bachman, 2006; Ford, 2005), which makes the issue of concern even if the prevalence at age 13 is low. Researchers studying adolescent offenders over time have found that age of initiation for use of illegal substances is one of the most consistent indicators of continued serious offending (e.g. Dembo, Wareham and Schmeidler, 2007; D’Amico et al., 2008). The issue of when and how individuals develop these co-occurring patterns of illegal substance use and illegal activity is less clear, although some of the same factors that put an individual at risk for involvement in criminality also put that individual



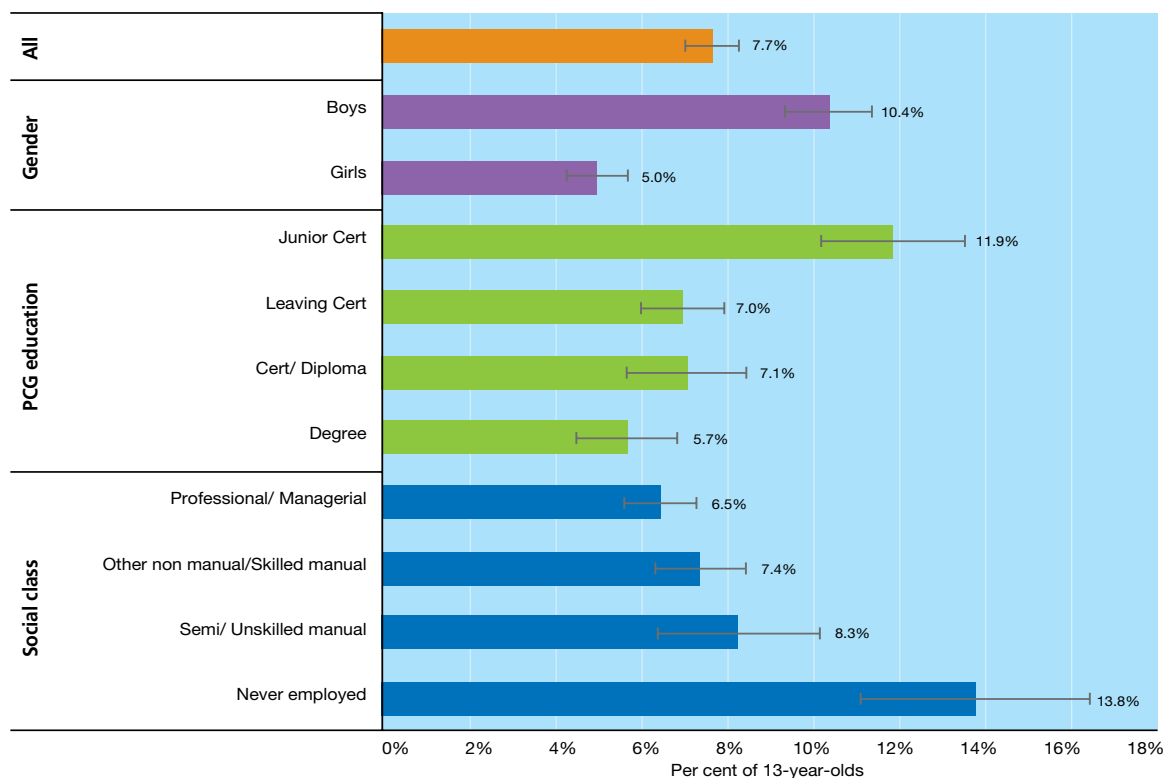
at risk for substance-abuse problems (Hawkins, Catalano and Miller, 1992; Iacono, Malone and McGue, 2008; Mamorstein, Iacono and McGue, 2009). Parental substance-use disorders, poor parenting, conflictual family environments and dispositional factors such as sensation-seeking and behavioural disinhibition place an adolescent at higher risk of using drugs and/or engaging in illegal acts (Hawkins, Catalano and Miller, 1992; National Advisory Committee on Drugs, 2011). Whether the relationship between substance use and delinquency is sequential or reciprocal can be debated, although it is clear that they are associated in adolescence.

In *Growing Up in Ireland* the 13-year-olds were asked a series of questions on risky behaviours: having been in trouble with the Gardaí (police); smoking; drinking alcohol and experience of drunkenness, and the use of inhalants or illicit drugs such as cannabis, ecstasy, speed, heroin, methadone, crack or cocaine.

10.3.1. BEING IN TROUBLE WITH THE GARDAÍ (POLICE)

Figure 10.1 shows the percentage of 13-year-olds who reported having ‘... been in trouble with the Gardaí’ (Irish police force). The question was asked in a very general way; no attempt was made to define the seriousness of the trouble in question. Just under eight per cent of 13-year-olds reported that they had been in trouble with the Gardaí – significantly higher among boys (10.4 per cent) than girls (5.0 per cent). Rates were also significantly higher among 13-year-olds from the most educationally and socially disadvantaged groups, measured in terms of the Primary Caregiver’s education and family social class. For example, 12 per cent of 13-year-olds whose Primary Caregiver had completed education at Junior Certificate level had been in trouble with the Gardaí, compared with six per cent among those whose main caregiver held a third-level qualification. Further examination of the factors associated with these socio-demographic differences, although beyond the scope of this report, would be well worthwhile.

Figure 10.1: Percentage of 13-year-olds who reported ever having been in trouble with the Gardaí, classified by gender, Primary Caregiver’s education and family social class



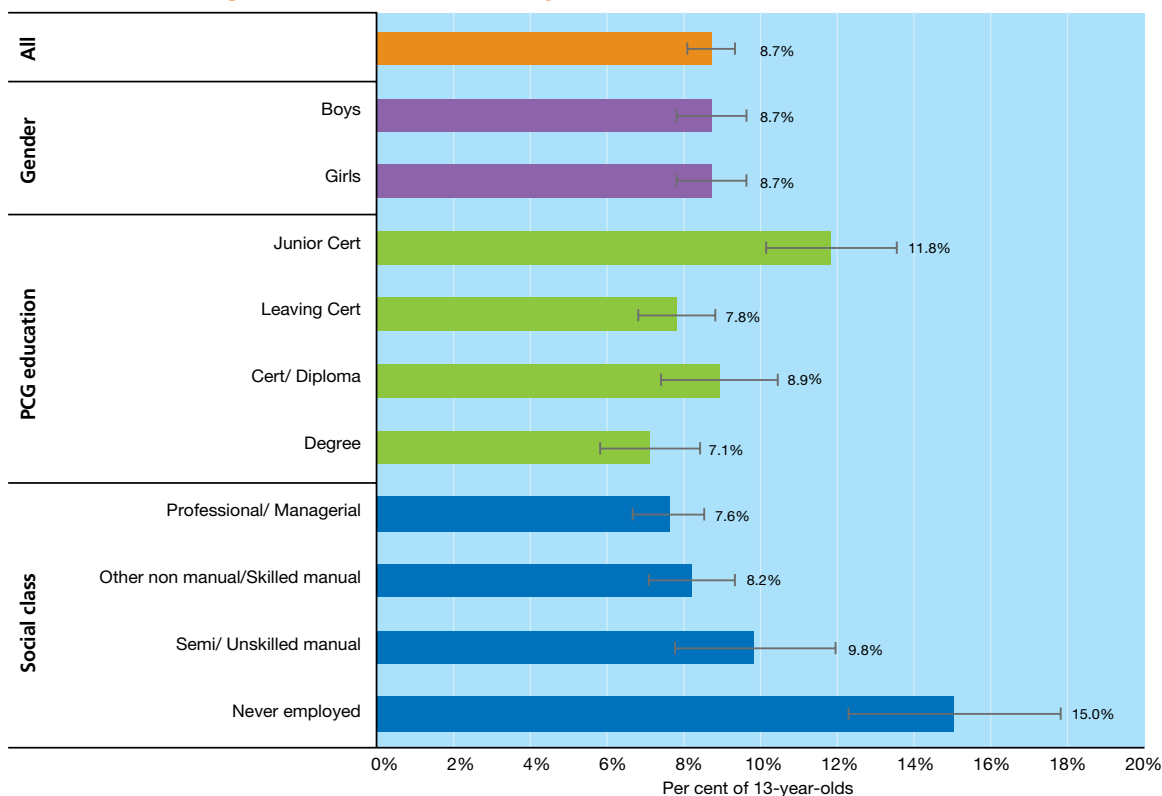
10.3.2 SMOKING, DRINKING AND DRUGS

Smoking

International studies indicate that although girls and boys are equally likely to have ever smoked, girls are about twice as likely to smoke weekly (8.5 per cent vs 4.9 per cent) or daily (5.7 per cent vs 2.5 per cent) compared with boys at 13 years of age (Godeau, Rahav and Hublet, 2006). This is important from a public health perspective given the well-established deleterious consequences of tobacco smoke for many aspects of physical health and development (Centres for Disease Control, 2011) and because prospective studies tend to show a progression from occasional smoking to daily smoking (Patton et al., 1998). Indeed, early initiation and smoking even one cigarette by age 11 has been shown to predict later tobacco use (Fidler, Wardle, Brodersen, Jarvis and West, 2006). Moreover, it has been estimated that about half of all new male adolescent smokers will smoke for at least 16 years, and this figure rises to 20 years for new female adolescent smokers (Pierce and Gilpin, 1996). Therefore, prevention of initiation, particularly among 13-year-olds, has become an important national health objective and the subject of targeted anti-smoking campaigns. Furthermore, within the life-course perspective, smoking is considered an important pathway through which health inequalities and social inequities may arise (Kestila et al., 2006).

In line with international trends, levels of smoking among 13-year-olds in Ireland have been falling over recent years. The Irish component of the Health Behaviour in School-Aged Children (HBSC) recorded that in 2014 just under nine per cent of 12-14 year-olds reported ever smoking (HBSC, 2015, p.27).⁵² This is less than half the level recorded among the same age group in 2010. In the course of their sensitive self-completion interview, 13-year-olds in *Growing Up in Ireland* were asked a number of questions on smoking. Figure 10.2 shows that 8.7 per cent indicated that they had ever smoked a cigarette. There was no difference in rates between boys and girls.

Figure 10.2: Percentage of 13-year-olds who ever smoked a cigarette, classified by gender, Primary Caregiver's education and family social class



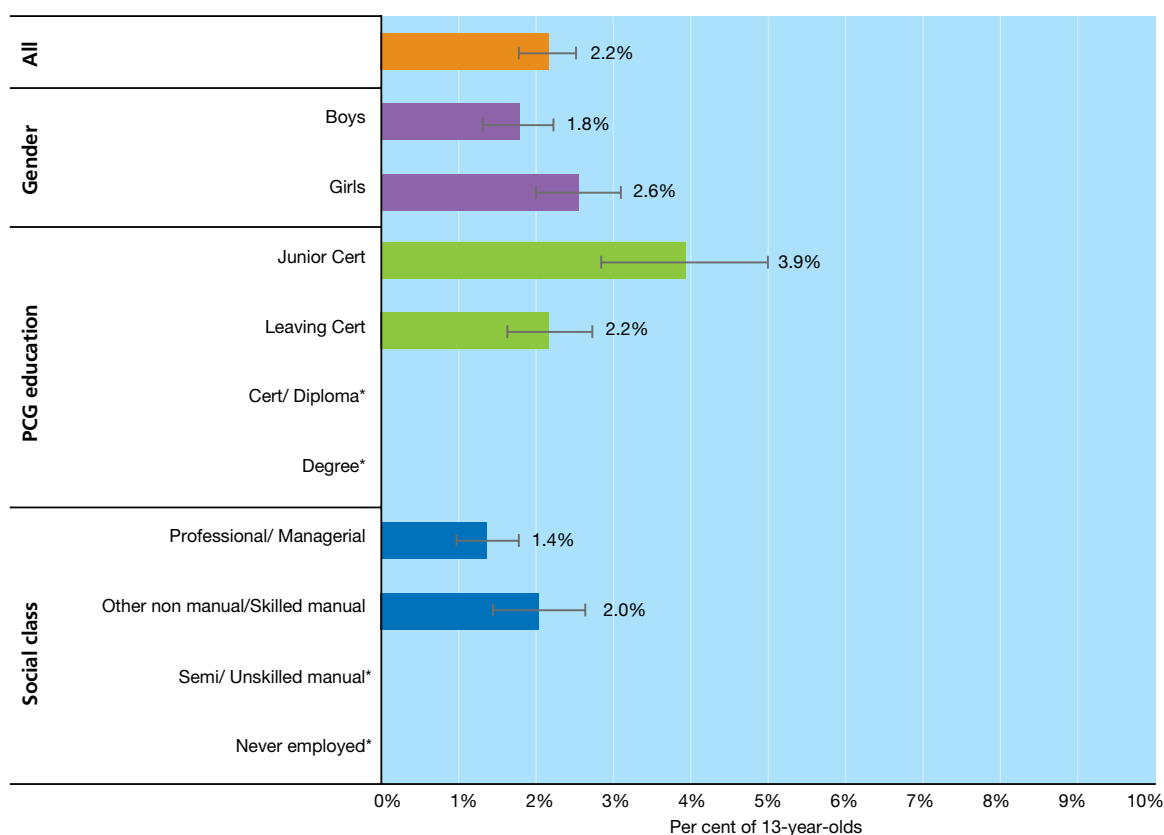
⁵² The question wording in the HBSC was 'Have you ever smoked tobacco (at least one cigarette, cigar or pipe)?'. This is a core question on the HBSC and the wording has remained the same. There is a slightly different wording used in *Growing Up in Ireland*: 'Have you ever smoked a cigarette?'.



Trends in smoking prevalence were associated with measures of parental advantage/disadvantage. Thirteen-year-olds whose Primary Caregiver was in the lowest educational category or lowest family social class group had significantly higher rates of having ever smoked a cigarette.

Figure 10.3 shows the percentage of 13-year-olds who reported that they currently smoked ('at present'). Prevalence levels are very low, at only 2.2 per cent. The gender difference is not statistically significant. As was the case with having ever smoked, rates of current smoking were significantly higher among 13-year-olds from the most educationally or socially disadvantaged groups.

Figure 10.3: Percentage of 13-year-olds who recorded that they currently smoked, classified by gender, Primary Caregiver's education and family social class



Note: *indicates too few cases to disaggregate

These current smoking levels from *Growing Up in Ireland* are lower than those reported in HBSC for Ireland in 2014, which found that approximately four per cent of 12-14 year-olds (and just over one per cent of 10-11 year-olds) reported that they currently smoked. This might be due to the slight difference in definition, where the HBSC defines current smoking as smoking tobacco monthly or more frequently compared to 'at present' in *Growing Up in Ireland*.

Drinking

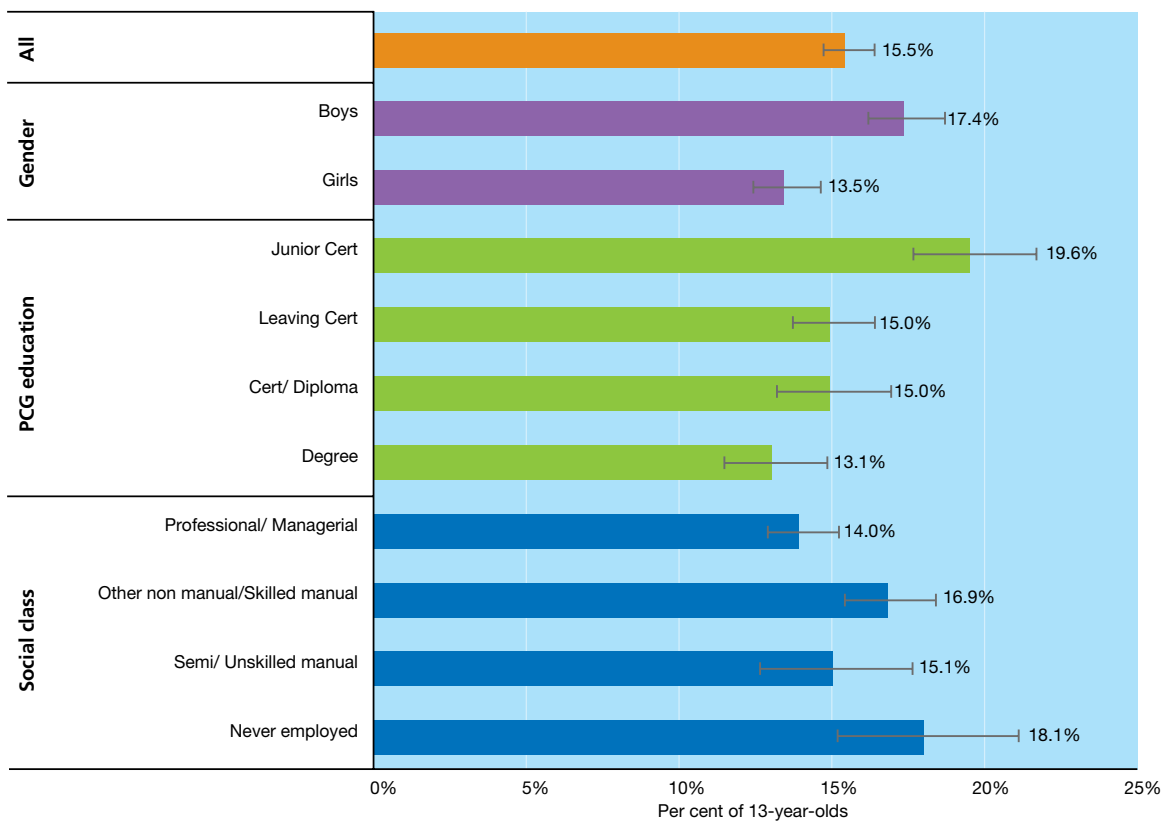
Alcohol is the third highest risk factor for premature death and ill-health in the European Union. Alcohol consumption is linked to more than 60 diseases and conditions, affecting nearly every organ in the human body (HSE, 2008). The harm from alcohol is linked to a range of health and social problems such as accidents, injuries, chronic ill-health, premature death, public safety, violence, child neglect, marital problems and lost productivity. The World Health Organisation (2010a) therefore recommends the introduction of policies to reduce the consumption of alcohol by adolescents.

Figure 10.4 shows the percentage of 13-year-olds who recorded that they ‘... ever had an alcoholic drink (other than just a few sips)’. Just under 16 per cent said they had, a significantly higher percentage among boys (17 per cent) than girls (14 per cent). Significantly higher levels were also recorded among the most educationally and socially disadvantaged groups. For example, the level was 19.6 per cent among those whose Primary Caregiver had left school with a Junior Certificate or less, compared to 13.1 per cent among those whose main caregiver had a degree. Of those who had ever taken an alcoholic drink, just under half (48 per cent) said that they had a whole alcoholic drink in the last year.

Respondents were further asked how frequently they currently drank, with response categories ranging from *never, rarely, on special occasions, at least once a month and once a week to every day*. Just under three per cent of 13-year-olds reported that they had consumed alcohol on special occasions or more frequently. Less than one per cent said that they drank more frequently than once a month.

The 13-year-olds were also asked whether or not they ‘... ever had so much alcohol that they were really drunk or felt sick or dizzy...’ A total of 3.6 per cent said they had been, most of these saying it had happened once only. Given the low prevalence levels, much of this early exposure to alcohol appears to be experimentation rather than habitual. The figures are lower than those reported from the Irish component of the 2014 HBSC study, which indicated that about eight per cent of 12 to 14 year-olds had ‘ever had so much alcohol’ that they ‘were really drunk’ (HBSC, 2014).

Figure 10.4: Percentage of 13-year-olds who recorded that they ever had an alcoholic drink, classified by gender, Primary Caregiver’s education and family social class





Illegal drugs

The consequences of illegal drug use include physical health outcomes such as kidney, liver and heart damage (e.g. Kaye et al., 2007), loss of memory or concentration, psychiatric disorder (e.g. Moore, Zammit and Lingford-Hughes, 2007), the transmission of viruses through sharing needles, and psychological and physical addiction (e.g. some illegal drugs can lead to increased aggression or hostility). There are also associated legal risks of engaging in illegal and dangerous activity.

In *Growing Up in Ireland* the 13-year-olds were asked a number of simple questions on whether or not they had ever used cannabis, sniffed glue or breathed the contents of spray cans, or inhaled any paints or sprays or petrol to ‘... get high’, or had ever used any other drugs (such as ecstasy, speed, heroin, methadone, crack or cocaine). The questions required only a yes/no answer.

Table 10.5 shows that the use of illicit drugs recorded by the 13-year-olds was relatively low – 2.9 per cent for sniffing glue or similar solvents to get high, 1.4 per cent for using cannabis and 0.4 per cent for using other drugs.

Table 10.5: Percentage of 13-year-olds who recorded having ever used cannabis, sniffed glue or used other illicit drugs (such as ecstasy, speed, heroin, methadone, crack or cocaine)

	All
	Per cent (95% confidence interval)
Ever used cannabis?	1.4 (1.1-1.6)
Ever sniffed glue, etc?	2.9 (2.5-3.3)
Ever used other illicit drugs? ¹	0.4 (0.3-0.6)

The 95% confidence intervals represent the range within which the percentage using these drugs will be found 95% of the time with a sample of this size and structure.

The difference between males and females was very small. It is not significant in respect of cannabis but is in respect of inhalants such as glue, paints, sprays, etc, with slightly more girls than boys indicating that they had ever sniffed glue, etc to get high.

10.4 SUMMARY

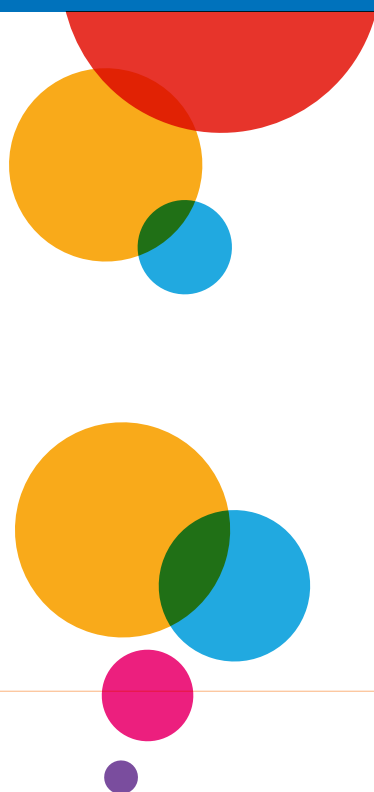
This chapter examined antisocial behaviour and risky health-related behaviour among 13-year-olds. Based on the reports of the 13-year-olds themselves, the main findings were as follows:

- The prevalence of antisocial behaviour in the year prior to the survey was low. Just 40 per cent of 13-year-olds reported any of the 15 types of antisocial behaviour and just 20 per cent reported more than one type. The more frequently reported types of antisocial behaviour were: hitting, kicking or punching someone in order to hurt or injure them (17.4 per cent), not paying the correct bus or train fare (14 per cent), behaving badly in public (11 per cent) and theft from a shop (7.2 per cent), school (5.9 per cent), or home (13.7 per cent). More boys than girls reported engaging in at least one of the 15 types of antisocial behaviour (46 and 31 per cent, respectively). One in 10 boys and one in 20 girls reported having been in trouble with the Gardaí.
- Boys and girls were equally likely to report having ever smoked, with a relatively low prevalence (just under nine per cent). Having ever smoked was more common among 13-year-olds from disadvantaged backgrounds (12 per cent where the Primary Caregiver had Junior Cert Education or less and 15 per cent in the most disadvantaged social class). Just over two per cent of 13-year-olds reported that they currently smoked.
- Just 16 per cent of 13-year-olds reported that they had ever had an alcoholic drink (other than a few sips), with a higher rate for boys than girls (17 per cent compared to 14 per cent). Again, those from the most disadvantaged backgrounds were more likely to have ever had a drink. Just under half of those who had ever had a drink had a whole alcoholic drink in the previous year.
- For both smoking and drinking, the current prevalence was considerably lower than the lifetime prevalence (having ever smoked or taken an alcoholic drink), suggesting that much smoking and drinking in this age group was experimental rather than habitual.
- The rate of drug use or solvent-sniffing was very low. Just 1.4 per cent had ever used cannabis, 2.9 per cent had ever sniffed glue and less than one per cent had ever used other illicit drugs.



Chapter 11

CONCLUSIONS AND POLICY IMPLICATIONS



11.1 INTRODUCTION

This report is based on data from the second wave of interviews with *Growing Up in Ireland's* Child Cohort, at age 13. It provides a descriptive analysis of the lives and circumstances of 13-year-olds in Ireland today and, most importantly, considers how things had changed for them since their first interview four years earlier when the Study Child was nine. The findings are explored on a longitudinal basis which allows insights into developmental trajectories and exploration into interactions between multiple factors on the lives of young people, a type of analysis that is not possible with previous cross-sectional reports.

The purpose of the report is to provide a descriptive overview of the lives of 13-year-olds and how these have changed since they were first interviewed at nine years of age. It considers how children's outcomes and well-being varied according to a range of the more salient characteristics in their lives, including gender, family type, income, social class and parental education.

The report was broadly structured along the lines of the bioecological conceptual framework that underlies the study. This was outlined in Chapter One. The report began with a consideration of what is probably the most important and enduring influence in the young person's microsystem – the family. Chapter Two specifically considered family form and changes in family structure between nine and 13 years of age and also looked at family financial circumstances in the period, which marked the beginning and middle of the Great Recession. This set the context for much of the subsequent analysis and discussion in the report. It was followed by a consideration of each of the three main child outcome domains in the study: physical health (Chapters 3 and 4), education and cognitive development (Chapters 5-7) and the 13-year-old's socio-emotional well-being, relationships and behaviour (Chapters 8-10).

All findings discussed in the report are statistically significant unless this is explicitly noted. Confidence intervals have generally been indicated by presenting error bars in the charts. It is worth remembering, however, that in a very large sample quite small differences between the characteristics of subgroups may be statistically significant (indicating they would be due to chance less than five times in 100). Such small differences are not always very meaningful in the real world. Further, the analyses reported here are all relatively simple, and the associations between variables shown here should not be interpreted to mean that the links between them represent cause and effect relationships.

Since each chapter provided a brief summary of the main findings, this chapter focuses on drawing out the implications of the findings for policy.

11.2 THE NATIONAL POLICY FRAMEWORK

Better Outcomes, Brighter Futures: the National Policy Framework for Children and Young People, 2014-2020 (DCYA, 2014) sets out the government's policy framework for children and young people. The vision statement in the policy framework is "...to make Ireland the best small country in the world in which to grow up and raise a family, and where the rights of all children and young people are respected, protected and fulfilled: where their voices are heard and where they are supported to realise their maximum potential now and in the future" (p4). The policy framework has five national outcomes, each with four aims and objectives regarding children and young people, as follows:

Outcome 1: Active and healthy – physical and mental well-being

Outcome 2: Achieving full potential in all areas of learning and development

Outcome 3: Safe and protected from harm

Outcome 4: Economic security and opportunity

Outcome 5: Connected, respected and contributing to their world

As noted in Chapter One of this report, a principal aim of *Growing Up in Ireland* is to provide an evidence-base for policy formation and design of services for families, children and young people. The results of the current report are summarised below along the lines of the five main outcomes set out in the National Policy Framework for Children and Young People. This illustrates clearly how the information in this report (and from *Growing Up in Ireland* generally) can very directly inform policy in key areas of the lives of children and young people in Ireland today.

11.3 OUTCOME ONE: ACTIVE AND HEALTHY – PHYSICAL AND MENTAL WELL-BEING

The aims of this outcome are that all children and young people:

- should be physically healthy and make positive health choices
- have good mental health
- have a positive and respectful approach to relationships and sexual health
- are enjoying play, recreation, sports, arts, culture and nature

Issues discussed in this report that informs national Outcome One include: general health, inequalities in health and healthcare use, obesity and obesogenic environments, socio-emotional well-being, screen time and computer use, and maturation and development.

General health

On average, adolescence is regarded as a period of relatively good health. In broad terms, the report found that the majority (98 per cent) of 13-year-olds were in good health, although this varied somewhat by social class. The same differentiation was true of chronic health conditions, illness and disability; 11 per cent overall of 13-year-olds were reported as having an ongoing chronic condition. Diseases of the respiratory system and mental or behavioural disorders were the most frequently mentioned. The prevalence of accidents requiring hospital treatment was 14 per cent overall, being higher among boys (17 per cent) than girls (11 per cent).

Healthcare utilisation

A key policy area is access to healthcare. In line with other research in Ireland, GP visitation rates were found to be higher among 13-year-olds covered by a medical card. Overall visitation rates increased slightly from 0.97 visits at nine years of age to 1.04 visits by 13 years. Of particular policy relevance is the increase in visitation levels between nine and 13 years of age among young people who were not covered by a medical card at nine but who were covered by age 13. Similarly, where there was a change in GMS status in the opposite direction (from being covered at nine years to not being covered at 13 years), there was a fall in the number of visits to the GP.

Weight status

An area of concern regarding young people's health is the high levels of overweight and obesity. Previous research from *Growing Up in Ireland* found high levels among three-year-olds, five-year-olds, nine-year-olds and (in this report) 13-year-olds – with 20 per cent overweight and six per cent obese. The rates of being overweight were higher for girls, at 22 per cent overweight and 7.5 per cent obese, compared to 18.5 per cent and 4.6 per cent, respectively, for boys. Most importantly, 65 per cent of those who were overweight at nine years of age remained overweight or obese at 13 while 91 per cent of those who were obese at nine years still had an elevated BMI at 13 years of age.

Issues were identified around the discordance between perceptions of weight status and measured status, both among the 13-year-olds themselves and among their parents. For instance, among 13-year-olds who were obese, only 19 per cent of the 13-year-olds and 11 per cent of their Primary Caregivers described them as very overweight. Among the overweight 13-year-olds, nearly half described themselves as just the right

weight or a bit skinny, with 60 per cent of their Primary Caregivers judging their weight as about right or a bit skinny.

The results pointed to a link between weight status and self-concept (especially for girls) and the heightened risk of socio-emotional and behavioural difficulties among those who are overweight or obese. BMI is an area that is readily susceptible to policy intervention. Parents still have a major influence on what their 13-year-old children eat and the activities in which they engage. Education of both parents and young people themselves can help to improve their understanding of the issues involved as well as their dietary and activity habits and profiles.

Screen time and computer use

While the majority of 13-year-olds watched between one and three hours of television per day, those in the lowest social class group were significantly more likely to report spending more than three hours watching television (38 per cent) compared to those in the highest social class (27 per cent). Thirteen-year-olds who watched more than one hour of television on weekdays had higher risks of being both overweight and obese than those who watched one hour or less. This might be partly accounted for by the link between snacking and longer periods of watching television.

Virtually all 13-year-olds have Internet access (98 per cent), and most (84 per cent) have access at home on a family PC or laptop. This, combined with access to TV, opens the possibility of using these media (Internet sites and TV programmes that are popular with this age group) as a route for targeting health promotion messages regarding diet and exercise.

Organised sports and cultural activities

There were indications of income inequalities in the level of participation in organised sporting and cultural activities, particularly when these were paid activities. The rate of participation at least weekly in paid, organised sporting activities was 56 per cent of those 13-year-olds in the highest income quintile compared to 34 per cent of those in the lowest quintile. Participation in dance, drama or music lessons (usually paid activities) was also higher among those in the top income quintile; 33 per cent participated at least once a week compared to just 20 per cent in the bottom quintile.

Socio-emotional well-being

Socio-emotional well-being among young people is a good predictor of their mental health in later life. The principal measure used in the report was the Strengths and Difficulties Questionnaire (SDQ). In broad terms, 13-year-olds in Ireland fared favourably on the SDQ measure. Although there were no significant gender differences in the overall difficulties score, girls were significantly more likely to have problems with emotional well-being than boys, while boys were significantly more likely to have problems related to hyperactivity.

A heightened risk of problems at nine years was linked to a greater risk of problems at 13 years, underlining the importance of fostering early recognition by parents and teachers to facilitate intervention and support. The relationship between family relationships (especially parent-child conflict) and 13-year-old's socio-emotional well-being was highlighted. The significance of stressful life events for the young person's well-being was also reported. The analysis pointed up the increased need for support to address potential socio-emotional and behavioural difficulties among young people from socially disadvantaged backgrounds, those who have experienced several stressful life events, those whose parents have separated, and where the parent-child relationship is characterised by conflict and low levels of monitoring and disclosure.

Physical activity and sport

Department of Health guidelines on physical activity for children and young people recommend 60 minutes of moderate to vigorous activity every day, with muscle-strengthening, flexibility and bone-strengthening exercises three times each week (Department of Health, 2014). Although the measure of physical activity among 13-year-olds used in *Growing Up in Ireland* did not allow us to directly assess the extent to which they met these guidelines, the data did provide important pointers to where activity levels may be lower than recommended.

Overall, boys were found to be more likely to be involved in frequent physical activity than girls (37 per cent took hard exercise for at least 20 minutes on nine or more days out of the preceding 14, compared to 18 per cent of girls). Social gradients were clear in terms of levels of activity: 33 per cent of 13-year-olds in the professional/managerial social class took hard exercise for at least 20 minutes on nine or more days out of the preceding 14, compared with 25 per cent of those from the most socially disadvantaged families. Comparing the number of days with hard exercise at ages nine and 13, it was seen that just over half of the Study Children had fewer days of hard exercise at age 13 than at age nine. The decline in exercise was even more marked for girls; 60 per cent took fewer days of hard exercise at 13 than at nine compared to 46 per cent for boys.

Sedentary activity and its link with BMI was considered. Snacking behaviour and consumption of energy-dense foods such as crisps/savoury snacks, sweets and fizzy drinks were all associated with increased hours of television viewing. Some of the associations with sedentary activity point to groups that might be targeted for policy intervention, such as girls and those from more disadvantaged backgrounds. Others, however, related to dietary behaviours, many of which could be addressed through education and awareness-raising, such as information campaigns on snacking behaviours among young people.⁵³ The findings on participation in physical activity and sport are all relevant to the *Irish Sports Council Strategy, 2012 – 2014*, *Teenspace: National Recreation Policy for Young People (2007)*, and the *National Physical Activity Plan (Healthy Ireland, 2016)*.

Maturation and pubertal development

Understanding the timing of puberty is extremely important as it is linked to the young person's self-concept and, consequently, emotional and behavioural outcomes. Evidence from the international literature was noted regarding gender differences in the effects of early or late maturation. The study found that 73 per cent of girls had had their first period by 13 years of age, with an average age of menarche of 12.2 years. Age increased somewhat with social class and parental education (by about three months) as well as with being non-overweight and an absence of previous stressful life events. Evidence was also found from the study to indicate that later age of menarche was associated with a lower risk of emotional and behavioural difficulties. Early onset of puberty among boys was indicated by voice change. Nearly two in five 13-year-old boys reported that their voice was occasionally lower, just over one in five reported no change and a similar proportion that their voice had changed completely. The remainder were unsure. Compared to girls, early puberty in boys had a weaker relationship with stressful life events, weight status at age nine, and emotional and behavioural outcomes. While early menarche tended to be associated with a poorer body image in girls, there was evidence that boys whose voice had changed by the time of the interview at age 13 had a more positive body image than those whose voice had not changed at all.

A greater awareness of the relationship between puberty on the one hand and self-concept, socio-emotional well-being, relationships and BMI status, on the other, could be fostered in parents, teachers and the young people themselves to support a positive self-concept and mental well-being.

⁵³ The advertising campaign run by Safefood in 2014 is a good example.

11.4 OUTCOME TWO: ACHIEVING FULL POTENTIAL IN LEARNING AND DEVELOPMENT

The aims of this outcome are that all children and young people:

- are learning and developing from birth
- have social and emotional well-being
- are engaged in learning
- are achieving in education

Chapters Five to Seven considered views from parents and the young people themselves on education and learning, as well as the young person's performance on the Drumcondra Reasoning Test (DRT) and British Ability Scales matrices test.

Distinct differences were identified in the profiles of young people attending the three secondary sectors in Ireland. The vocational sector was largely characterised by a greater concentration of children from less advantaged backgrounds. This may be due to a combination of parental choice, school admission policy and peer influences. Whatever the reasons, the social differentiation of schools by sector will have implications for later outcomes, resource allocation and subject provision.

Transition to second level

The major transition from first to second level appears to have gone relatively smoothly for most young people, albeit with some evidence to suggest slightly greater difficulties among girls than boys; more difficulties among those with special educational needs; among those whose parents were born outside Ireland, and those from less advantaged family backgrounds. The ease of transition was linked to primary school experience. Not liking Maths at age nine or having a lower Numerical Ability score at nine years of age, for example, were found to be predictive of later difficulties in making the transition to second level, emphasising the need to ensure a positive experience of school and full engagement with it from as early an age as possible. Having many friends from primary school in the new school also helped reduce transition difficulties.

These findings seem particularly relevant to the government's transformational goals which are central to Outcome Two in the *National Policy Framework*. It notes the importance of researching and adopting strategies to strengthen transitions through the educational system (DCYA, 2014, p71).

Parental engagement with child's education

Parental engagement with their child's education was generally found to be high. Large proportions attended parent-teacher meetings (88 per cent) and always or almost always knew how their 13-year-old did in different school subjects (83 per cent). Helping with homework was substantially reduced relative to the situation at nine years of age; just 23 per cent *regularly/always* helped with homework at age 13 compared to 71 per cent at age nine. Helping with homework was also socially structured, implying some potential for intergenerational transmission of advantage/disadvantage.

Parents had high expectations of their 13-year-olds' educational achievement; 79 per cent of Primary Caregivers expected their children to obtain a degree or postgraduate degree. These expectations were much higher than those held by the young people themselves at age 13: 51 per cent expected a degree. While this indicates a generally positive attitude towards education on the part of parents, it is worth examining whether the gap in expectations is a positive factor (acting to motivate young people) or a negative factor (acting to unnecessarily increase their stress levels).

A relatively high percentage of both Primary Caregivers (28 per cent) and Secondary Caregivers (42 per cent) who worked outside the home noted that their work responsibilities resulted in them missing out

on family activities. This was especially true of Secondary Caregivers (mostly fathers), because they work longer hours. In policy terms, enhanced workplace policies around flexible and family-friendly employment practices could assist in reducing imbalances between work and family and allow for greater engagement of parents with their children's education.

Pupil engagement with school

Overall, young people were themselves positively engaged with secondary school and subjects, girls more so than boys. Engagement was stronger among children from more advantaged backgrounds. Young people with a special educational need were also more likely to have a negative experience of secondary school. The significance of this, of course, is that early negative experience in second level will subsequently be associated with school dropout and early school-leaving. Early identification of disengagement and the establishment of appropriate retention policies are therefore important.

Educational expectations

Educational expectations among 13-year-olds were substantially lower among those from disadvantaged families. For instance, 13-year-olds whose Primary Caregiver had a degree were much more likely (67 per cent) than those whose Primary Caregiver had lower second-level education (34 per cent) to believe they would achieve a college degree. Attitudes to school at age nine were predictive of expectations four years later, as was school performance at primary level. As noted above, the 13-year-olds tended to have much lower academic expectations of themselves than their parents had of them.

Scores on cognitive tests

Performance of the 13-year-olds on cognitive tests that they undertook as part of the study was strongly linked to family background, especially to parental education. The score on the Drumcondra Verbal Reasoning test – which has an overall average of 100 and a standard deviation of 15 – was 104 for 13-year-olds from professional/managerial social class backgrounds compared to 95 among those from 'never employed' backgrounds. Cognitive test scores were also linked to engagement with school, liking school and academic self-concept. The direction of this relationship is, as previously noted, something that cannot be determined based on the descriptive data presented here.

11.5 OUTCOME THREE: SAFE AND PROTECTED FROM HARM

The aims of this outcome are that all children and young people:

- have a secure, stable and caring home environment
- are safe from abuse, neglect and exploitation
- are protected from bullying and discrimination
- are safe from crime and antisocial behaviour

Family and home environment

Despite changes in family structures in recent years, the two-parent model is still the main family form in Ireland. Almost 81 per cent of 13-year-olds live in two-parent families (not necessarily two biological parents). Although this is approximately the same as the percentage at nine years of age (82 per cent), there was evidence of changing family structures over the four-year period. Just under five per cent of young people went from a two-parent to a one-parent family and a slightly smaller percentage (three per cent) went from a one- to a two-parent family unit.

In broad terms, levels of parent-child conflict (an average of 15 out of a possible 40) were low and parent-child closeness (32 for the Primary and 31 for the Secondary Caregiver out of a possible 35) were high. Levels of monitoring (by parents) and disclosure (by 13-year-olds) were generally high. Primary and Secondary Caregivers reported similar levels of monitoring (40 and 38 respectively out of a possible 45),

and similar levels of disclosure by young people (20 and 19 respectively, out of 25). For control, as reported by the 13-year-old, the mean score was 20 out of a maximum of 30. In general, monitoring and disclosure reported by the Primary Caregiver tended to be higher for girls than for boys. Girls were more likely than boys to report high levels of parental control.

Monitoring and disclosure are important to the mental well-being of 13-year-olds. High levels of monitoring and disclosure are associated with a lower (by about half the average level) risk of socio-emotional and behavioural problems. Again, without further analysis, a firm causal relationship cannot be asserted here, but it is an area worthy of future research.

As noted above, the analysis in Chapter Two indicated that substantial minorities of parents felt that the demands of their work negatively affected their family life; 42 per cent of Primary Caregivers and 42 per cent of Secondary Caregivers who worked outside the home noted that their work responsibilities resulted in them missing out on family activities. This has implications for policy in that such work demands are likely to affect the capacity of parents to monitor the activities of their teenagers. Family-friendly workplace policies, therefore, are likely to be important in terms of ensuring the emotional well-being, safety and responsible behaviour of young adults.

Prevalence and nature of bullying

Just under 10 per cent of 13-year-olds reported having been the victim of bullying in the previous three months, with similar levels overall reported by the Primary Caregiver with respect to the 13-year-old. There was, however, discordance between the parental report and that from the young person at the individual level. Some of this may be attributed to differences in definitions adopted by parents and their children. As noted in Chapter Nine, the level of bullying recorded was lower than that in other studies of young people in Ireland. The forms of bullying identified included physical, verbal, emotional and cyber-bullying. Verbal (name-calling) was the most common form reported by the 13-year-olds, followed by exclusion and gossip/spreading rumours. About 30 per cent of victims experienced physical bullying and about the same percentage reported having experienced electronic bullying. Boys were more likely to have experienced physical bullying and verbal bullying. Girls reported more gossip/spreading rumours and electronic bullying. Physical appearance and jealousy were among the most frequently cited reasons, while doing well in class and being seen as the teacher's pet were also moderately important.

The implications and effects of bullying on the young person were clear. Victims had a higher (i.e. worse) score on measures of socio-emotional and behavioural difficulties. The perpetrators of bullying also had higher scores on these scales, indicating higher levels of socio-emotional difficulties. Associations between low self-concept and low mood for both victims and perpetrators were noted.

Bullying is possibly one of the more policy-amenable aspects of peer relationships. The nature of bullying emphasises that interventions must address both covert and overt forms. Equally, the fact that many (but not all) of the reasons for bullying are school-related points to the need for a coordinated approach to the problem by all main parties in the young person's life – family, school, community.

Crime and antisocial behaviour

Just under eight per cent of 13-year-olds said they had been in trouble with the Gardaí (police service) – 10 per cent of boys and five per cent of girls. There was evidence that levels were higher among more socially disadvantaged groups. Information was not recorded on the nature of the trouble in question.

Levels of antisocial behaviour among 13-year-olds were found to be relatively low. Just 40 per cent of 13-year-olds reported any of the 15 types of antisocial behaviour in the past year and just 20 per cent reported more than one type. The more frequently reported types of antisocial behaviour were hitting,

kicking or punching someone in order to hurt or injure them (17 per cent), not paying the correct bus or train fare (14 per cent), behaving badly in public (11 per cent) and theft from a shop (seven per cent), school (six per cent) or home (14 per cent). Interventions in the form of community-based activities may be an appropriate response to reduce the risks for young people of being drawn into antisocial or criminal activity. Further analysis of *Growing Up in Ireland* data would throw light on the importance of these factors.

Internet safety

Internet access was almost universal, either at school, at home or both. Supervision of access was less systematic, however, with only about half of the 13-year-olds always being supervised and fewer than half of the Primary Caregivers reporting use of automated internet content filters. This suggests there is scope to provide information and support to parents in order to encourage a more proactive approach to internet safety.

11.6 OUTCOME FOUR: ECONOMIC SECURITY AND OPPORTUNITY

The aims of this outcome are that all children and young people:

- are protected from poverty and social exclusion
- are living in child/youth-friendly, sustainable communities
- have opportunities for ongoing education and training
- have pathways to economic participation and independent living

As noted in the *National Policy Framework*, there is a strong link between parental participation in the labour market, maternal education and children's living conditions. This was clearly reflected in the findings from this report. As a result of the recession, employment levels of the Secondary Caregiver (usually the father) fell between the time the study child was nine and when they were 13 (from 91 per cent to 83 per cent). Median disposable income fell by about 18 per cent on average in the period and the percentage of families experiencing difficulty or great difficulty in making ends meet rose from eight per cent to 23 per cent. Family income at both nine and 13 years of age was strongly related to family social class and level of parental education. There was clear evidence that the larger one-parent families were over-represented in the lowest income category.

The impact of the recession was clear, with 93 per cent of families saying it had had an effect on them. It is a matter of concern that substantial minorities said they couldn't afford/had to cut back on basics (29 per cent); were behind with utility bills (12 per cent) or were behind with the rent/mortgage (10 per cent). Although the impact of the recession was very general, affecting most social classes, some families were already starting out with low resources before the recession started. The group with persistently low resources are particularly disadvantaged.

As suggested in the *National Policy Framework* tackling disadvantage can be achieved through "... active inclusion strategies that combine supports for parents to access education, training and employment, with income support..." (p91). In addition, these strategies should be combined with flexible labour-market policies aimed at reducing some of the work-life imbalances noted in the report. In Chapter Two, it was noted that 58 per cent of the Primary Caregivers (mostly mothers) reported their main status as *at work outside the home*. Work-life imbalances were evident among substantial proportions of Primary (and Secondary) Caregivers who worked outside the home, and these imbalances were strongly related to number of hours worked.

11.7 OUTCOME FIVE: CONNECTED, RESPECTED AND CONTRIBUTING TO THEIR WORLD

The aims of this outcome are that all children and young people:

- have a sense of their own identity, free from discrimination
- have positive networks of friends, family and community
- are civically engaged, and are socially and environmentally conscious
- are aware of their rights, and are responsible and respectful of the law

Chapter Nine considered, among other things, young people’s self-concept. Overall, boys had a higher self-image than girls, except in terms of their behaviour. It was also noted that, although they generally outperform boys in school, girls had lower average scores in terms of their academic self-concept as measured using the intellectual status subscale of the widely used Piers-Harris scale. It was also notable that there was little statistically significant variation in overall self-concept at 13 years of age in terms of social advantage/disadvantage. The exception to this was in respect of academic self-concept, discussed in Chapter Five, which was significantly higher among those with more advantaged social class backgrounds.

Friendship networks were important to young people. Most 13-year-olds said they were part of a network of friends – 92 per cent said they had three or more friends, and one per cent that they had no friends at all. There were only minor differences between boys and girls in the size of their friendship networks, and there was no difference in terms of any measure of social advantage/disadvantage. The majority (98 per cent) of young people said their parents had met some or all of their friends. A link was identified between size of friendship network and the young person’s socio-emotional well-being. Those with three or more friends had a lower risk of socio-emotional or behavioural problems than those with fewer friends or no friends.

11.8 NEXT STEPS IN GROWING UP IN IRELAND’S CHILD COHORT

This is the first in a series of reports based on the Child Cohort (at 13 years of age). The report was intentionally purely descriptive in nature, its main objective being to paint an overall picture of the lives of 13-year-olds in 21st century Ireland across the main developmental outcomes of their lives.

Thirteen years of age is clearly a stage of major change for young people, on the threshold of adolescence. Most have made the transition to second-level school, which involves leaving some old friends behind, making new ones and, in general, negotiating a new set of relationships with parents, teachers and peers. The changes associated with maturation and pubertal development are well underway for most of the 13-year-olds. How successfully they navigate their way through adolescence will be assessed in future waves of data collection with the cohort. The findings from the current and subsequent reports will inform policymakers and practitioners in all major areas of 13-year-olds’ lives. A related goal is to inform researchers and policymakers of the rich data available in *Growing Up in Ireland* and to encourage further research on this important national data source.

11.9 POTENTIAL FOR FURTHER RESEARCH

This descriptive report highlighted the rich data available in the *Growing Up in Ireland* study and pointed to several areas where further in-depth analyses of the data would help to inform a deeper understanding of children’s lives so as to guide policy in the area.

With this in mind, a number of further analyses could usefully inform policy:

- **Equality of opportunity:** While most children are doing well, there are differences between socio-economic groups. Further analysis of possible causal mechanisms would usefully inform potential interventions to ensure equality of opportunity. These could include analyses of the role of family dynamics, parent-child interaction, parent-teacher interaction and school practices.
- **School experiences:** Further waves of data will allow researchers to explore gender differences in engagement, enjoyment and self-rating of the academic experience as well as performance in the cognitive tests and how these might relate to future performance in state examinations, as well as gender-based class allocation.
- **Educational aspirations:** What accounts for the gap in educational expectations between parents and their children? As noted above, the expectations of parents tend to be much higher, especially in more disadvantaged families. Is this because the expectations of young people are being unnecessarily lowered or because parents are less familiar with the post-school alternatives to a college degree? Is there evidence that the gap in expectations results in increased anxiety or a lower academic self-concept among young people?
- **Responsible social engagement:** The self-reports of risk-taking (including smoking, early drinking, drug use) and antisocial behaviour could be studied to examine in more detail the potentially protective effects of parental monitoring and disclosure, involvement in sport or other physical activities, and engagement with after-school activities. The longitudinal data give a unique opportunity to study what helps young people move away from antisocial behaviour between the ages of 13 and 17 and into their 20s.
- **Health:** While most young people are in good health, the levels of obesity are of concern as potential triggers of future health problems. Again, the longitudinal nature of the data allows for a sophisticated and nuanced analysis of the protective factors that enable young people to avoid being overweight in the first place, as well as factors that may be important in remedying the problem once it has emerged. How important are diet, exercise, family and peer relationships in terms of this outcome?
- **Mental well-being** is responsive to many of the influences in young people's lives, including family relationships, family economic circumstances, the experience of bullying and relationships with peers. As well as tracing some of the important risk factors for socio-emotional and behavioural problems, *Growing Up in Ireland* data could be examined to look more closely at the protective factors. For instance, how is the socio-emotional well-being of young people affected by improvements in the family economic circumstances, a parent returning to work, improvements in the mental well-being of parents, changes in the level of parent-child conflict or beginning involvement in sports or physical activity?
- **Factors promoting resilience:** Further analysis could fruitfully identify the school, family and individual characteristics that protected the children through what can be a difficult transition to adolescence. In particular, how important are maintaining positive relationship with parents, continuity in family structure, school strategies for managing the transition, earlier positive self-concept, continued participation in sport, and continuity of friends from primary to second level?
- **Timing of key transitions:** How significant for the well-being of children are factors such as early puberty, being unusually large or small for their age, or being unusually old or young for the transition to secondary school? What factors are protective of children in these circumstances?

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GLOSSARY

Confidence interval: Whenever data from a probability sample is used to draw conclusions about the population, there is a degree of uncertainty around the figures. This is often reported as a confidence interval. This is the range within which the population figure would be expected to be found in 95% of the samples of the same size and design as the one used. For instance, recent calculations suggest that 81 per cent of 13-year-olds live in two-parent families (confidence interval ± 1 per cent). This means that, in 95 per cent of samples of this size and type, the 'true' rate of being in a two-parent family would lie between 80 and 82 per cent. In general, for a smaller sample size the confidence interval will be wider.

Odds ratio: This is a measure of how much more (or less) likely an outcome is for one group than for another. When looking at a two-category outcome (such as having or not having a high risk of socio-emotional problems), a logistic regression is used and odds ratios are reported. Odds ratios measure the relationship between a characteristic (such as living in a one-parent family) and an outcome (such as being in the 'at risk' range for having socio-emotional and behavioural problems). The odds ratio is the ratio of the odds that an outcome will occur given a particular characteristic, compared to the odds of the outcome occurring in the reference group. For instance, an odds ratio of 2.2 for one-parent versus two-parent families would indicate that the odds of socio-emotional difficulties for children in one-parent families are 2.2 times higher than for those in two-parent families. Odds ratios with a value greater than one indicate that the characteristic increases the chances of the outcome compared to the reference group. An odds ratio less than one means that the characteristic reduces the chances of the outcome compared to the reference group.

APPENDIX 1: SUMMARY OF KEY SCALES USED IN REPORT

Scale	Description	Interpretation
Strengths and Difficulties Questionnaire (SDQ, Goodman 1997) – a screening tool that measures socio-emotional and behavioural difficulties	20 items in Total Difficulties scale, ranges from 0-40. Cronbach's alpha 0.67. Reliabilities for the subscales were emotional symptoms (.69), conduct problems (.59), hyperactivity (.77), peer problems (.54) and prosocial behaviour (.64).	High score indicates higher level of socio-emotional and behavioural difficulties. The Total Difficulties score is used to identify the group most at risk of socio-emotional and behavioural problems.
Piers-Harris II self-concept measure (Piers and Herzberg, 2007), an indicator of self-esteem across different domains (physical, intellectual, behavioural adjustment, freedom from anxiety, popularity, happiness and satisfaction with life and total score)	A 60-item instrument with 11-16 items in each of the 6 domains. Piers and Herzberg (2007) report reliability of 0.91 for Total Self-Concept and reliabilities ranging from 0.77 to 0.82 for the subscales.	Higher scores indicate more positive self-concept; in the report, results are also reported in categories produced by the test developers, such as very low, low, low-average, average and above average.
Misbehaviour scale – a scale measuring the frequency of seven different types of misbehaviour in school, as reported by the 13-year-old	7-item scale, ranging from 1 to 4 (observed maximum was 3.71); reliability 0.68; mean 1.36 and standard deviation of 0.34; Cronbach's alpha 0.735. Mean is 1.42 for boys and 1.29 for girls.	Higher scores indicate higher level of misbehaviour.
Transition difficulties – a scale measuring the level of difficulty experienced in the transition to second level school	7 items (4 positive, 3 negative) based on parent report. Scale range from 6 to 35; reliability 0.59, mean 13.7 and standard deviation of 3.9.	Higher scores indicate greater transition difficulties.
Drumcondra Reasoning test – Verbal Reasoning (Educational Research Centre). This is a scholastic aptitude test (rather than a measure of school performance).	Shortened version with 20 items, scaled to have mean of 100 and standard deviation of 15.	Higher scores indicate higher scholastic aptitude in verbal ability.
Drumcondra Reasoning test – Numerical Ability (Educational Research Centre). This is a scholastic aptitude test (rather than a measure of school performance).	Shortened version with 20 items, scaled to have mean of 100 and standard deviation of 15.	Higher scores indicate higher scholastic aptitude in numerical ability.
British Ability Scales Matrices Subtest (BAS, Elliott et al., 1997). The Matrices sub-test from the School Age Battery was used in Growing Up in Ireland with the 13-year-olds.	33-item measure of non-verbal reasoning and visuo-spatial ability, scaled to have mean of 100 and standard deviation of 15. Elliot et al. (1997) report coefficient alphas for the Matrices test as 0.85 for children aged 13.	Higher scores indicate higher non-verbal reasoning and visuo-spatial ability.
Dyadic Adjustment Scale (DAS-4) (Sabourin, Valois and Lussier, 2005), measure of the quality of the relationship between the parents in a two-parent family.	4-item self-report scale was found by its developers to have a reliability of 0.84 in a study of over 2,000 couples. (Sabourin, Valois and Lussier, 2005)	High values indicate a high level of satisfaction in the relationship.
Pianta scale – 15-item parent-child relationship scale (Pianta, 1992) measuring closeness and conflict in parent-child relationships, based on reports by the Primary Caregiver.	The Conflicts subscale included items on the parent's perception of difficulties in the relationship with the Study Child, while the Positive Aspects subscale included items relating to getting on with the Study Child and feelings of effectiveness as a parent. The scale authors report reliabilities of 0.83 for the full version of the Conflict subscale and 0.72 for the Positive Aspects subscale.	Higher values on the Conflict subscale indicate high levels of conflict while high values on the Positive Aspects subscale indicate high levels of closeness.
Parental monitoring , as reported by parent (from Stattin and Kerr, 2000)	9 items, Cronbach's alpha 0.49 for PCG, .54 for SCG	Higher values indicate higher levels of monitoring.

APPENDIX 1 (Continued)

Scale	Description	Interpretation
Disclosure – Parent-report of 13-year-old's disclosure (from Stattin and Kerr, 2000)	5 items, Cronbach's alpha 0.54 for PCG, .52 for SCG	High values indicate higher levels of disclosure.
Parental control – 13-year-old report of parental control (from Stattin and Kerr, 2000)	6 items, Cronbach's alpha 0.77	High values indicate greater parental control.
Parenting Style Inventory (PSI-II) (Darling and Toyokawa, 1997) – subscales measure demandingness, responsiveness and autonomy-granting	The authors used a sample of 318 11-14-year-olds and found subscale reliabilities of 0.72 for Responsiveness, 0.72 for Demandingness and 0.75 for Autonomy-granting.	High values on the respective scales indicate high demandingness, responsiveness and autonomy-granting.
Short Mood and Feelings Questionnaire (SMFQ) (Angold et al., 1995) a screening tool that measures depressive symptoms among 13-year-olds	13-item, self-report measure of childhood and adolescent depression. The developers of the 13-item SMFQ found it to have good internal reliability (0.87).	Higher scores indicate a higher level of depressive symptoms.



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