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Growing Up in Ireland

National Longitudinal Study of Children

COHORT '98 (FORMERLY CHILD COHORT)

Design, Instrumentation and Procedures for
Cohort '98 at 17/18 years of age

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Table of Contents

LIST OF TABLES	7
LIST OF FIGURES	7
LIST OF APPENDICES	8
1 INTRODUCTION	10
1.1 Introduction	10
1.2 Background and Objectives	10
1.3 Conceptual Framework	11
1.3.1 Summary of the Conceptual Framework	11
1.3.2 From Conceptual Framework to Instrumentation for the 17/18-Year-Old	13
1.4 Structure of Report	15
2 THE SAMPLE AND DATA	18
2.1 Introduction	18
2.2 Composition of the longitudinal sample	18
2.3 Tracking strategies and differential inter-wave attrition	20
2.4 Reweighting the data	25
3 INPUT INTO INSTRUMENTS	30
3.1 Introduction	30
3.2 Scientific Advisory Group	30
3.3 International Advisors	30
3.4 The Young Person Consultative Process	30
3.5 Stakeholder Groups	31
3.6 Research Ethics Committee	31
3.7 Other Longitudinal Studies	32
3.7.1 Growing Up in Australia	32



3.7.2	National Longitudinal Survey of Children and Youth (NLSCY)-----	32
3.7.3	Avon Longitudinal Study of Parents and Children (ALSPAC)-----	32
3.7.4	Living in Ireland Survey -----	32
3.7.5	EU-Survey on Income and Living Conditions (EU-SILC) -----	33
3.7.6	Economic and Social Research Council's 16-19 Initiative -----	33
3.7.7	German PAIRFAM Study-----	33
3.8	Pilot Study -----	33
4	ETHICAL CONSIDERATIONS-----	36
4.1	Introduction-----	36
4.2	Relevant Acts -----	36
4.2.1	Data Protection Acts 1988, 2003-----	36
4.2.2	Statistics Act (1993)-----	37
4.3	Practical Application of Ethical Considerations-----	37
4.3.1	Informed Consent-----	37
4.3.2	Reporting Concerns-----	38
4.3.3	Interviewers Alone with the Young Person-----	38
4.3.4	Confidentiality -----	38
4.3.5	Avoidance of Embarrassment or Distress-----	39
5	OVERVIEW OF INSTRUMENTS AND PROCEDURES -----	42
5.1	Introduction-----	42
5.2	Household-based Fieldwork and Family Participation -----	42
5.3	CAPI Procedure-----	44
5.4	CASI Procedure-----	45
5.5	Cognitive Tests -----	45
5.6	Special Procedures -----	45
5.6.1	Other Languages -----	46
5.6.2	Twins and Triplets-----	46
5.7	Gifts to Respondents -----	46
6	PARENT ONE AND PARENT TWO INSTRUMENTS -----	48
6.1	Introduction-----	48
6.2	Young Person's Address & Household Composition -----	48
6.3	Parent One Questionnaire -----	50



6.3.1	Section A: Parent’s Health -----	50
6.3.2	Section B: Young Person’s Health and Illness -----	52
6.3.3	Section C: Family Context -----	53
6.3.4	Section D: Young Person’s Emotional Health and Well-being-----	55
6.3.5	Section E: Parent’s Socio-demographics-----	57
6.3.6	Section F: Parent’s Background Characteristics -----	58
6.3.7	Section G: Household Income-----	60
6.3.8	Section H: Neighbourhood/ Community Involvement-----	62
6.3.9	Section J: Intergenerational Characteristics -----	63
6.4	Parent Two Questionnaire -----	64
6.4.1	Section A: Parental Health -----	64
6.4.2	Section B: Family Context -----	64
6.4.3	Section C: Young Person’s Emotional Health and Well-being-----	65
6.4.4	Section D: Parent’s Socio-demographics -----	65
6.4.5	Section E: Parent Background Characteristics -----	65
6.4.6	Section F: Intergenerational Characteristics-----	65
6.5	Parent One/Parent Two Self-Complete Questionnaire -----	66
7	YOUNG PERSON INSTRUMENTS-----	76
7.1	Introduction-----	76
7.2	Young Person Main Questionnaire -----	76
7.2.1	Section A: Current Education or Work Status-----	76
7.2.2	Section B: Experience of Secondary School-----	77
7.2.3	Section C: Career Guidance and Attitudes to Further/Higher Education-----	80
7.2.4	Section D: Involvement in Post-School Education and Training -----	82
7.2.5	Section E: Parental Engagement in Education -----	83
7.2.6	Section F: Part-Time Work While in Education -----	84
7.2.7	Section G: Attitudes to Work-----	84
7.2.8	Section H: Work History -----	88
7.2.9	Section J: Activities-----	88
7.2.10	Section K: Citizenship, Identity and Civic Participation -----	89
7.2.11	Section L: Neighbourhood -----	91
7.2.12	Section M: Young Person’s Health -----	91
7.2.13	Section N: Diet, Exercise and Sleep -----	93
7.2.14	Section O: Dental Health -----	97
7.3	Young Person Self-Complete -----	97
8	COGNITIVE TESTS -----	122
8.1	Introduction-----	122
8.2	Semantic Fluency Test (Animal Naming Task) -----	122
8.3	Vocabulary test-----	122



8.4	Financial literacy/numeracy -----	123
9	OTHER INSTRUMENTS AND MEASURES -----	126
9.1	Introduction -----	126
9.2	Non-Resident Parent Questionnaire -----	126
9.3	The Principal Questionnaire -----	128
10	SUMMARY -----	134
10.1	Introduction -----	134
10.2	Summary of Cross Wave Measures -----	135
10.2.1	Summary of Physical Health and Development-----	135
10.2.2	Summary of young person’s socio-emotional well-being, behaviours and relationships-----	137
10.2.3	Summary of young person’s cognitive development, school experience and performance-----	139
10.2.4	Summary of young person’s economic and civic participation and emergence as a young adult.-----	141
10.2.5	Summary of young person’s background, family and contextual characteristics-----	141
10.3	Conclusions -----	144
	REFERENCES -----	145



LIST OF TABLES

Table 1.1 Examples of <i>Growing Up in Ireland</i> variables for 17/18 year olds in each layer of the bio-ecological model-----	12
Table 2.1 Summary survey response for Wave Two, Cohort'98-----	18
Table 2.2 Response outcomes in Wave 3 (at 17/18 years of age) by outcome at Wave 2 -	19
Table 2.3 Response rates at 17/18 years by background characteristics at 13 years of age. -----	22
Table 2.4 Odds ratios of participating in Wave 3 among those who participated in Wave 2 -----	23
Table 2.5 Breakdown of Study Children/Young people and their families according to participation at 9 years, 13 years and 17/18 years of age-----	25
Table 10.1 Young Person's physical health and well-being -----	136
Table 10.2 Young Person's Socio-Emotional Well-Being, Behaviours and Relationships --	138
Table 10.3 Young Person's cognitive development, school experience and performance	140
Table 10.4 Economic and Civic Participation / Emerging Adulthood -----	141
Table 10.5 Background, Family and Contextual Characteristics -----	141

LIST OF FIGURES

Figure 1.1 Elements of the life-course paradigm. Adapted from Elder and Giele (2009) ---	13
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LIST OF APPENDICES

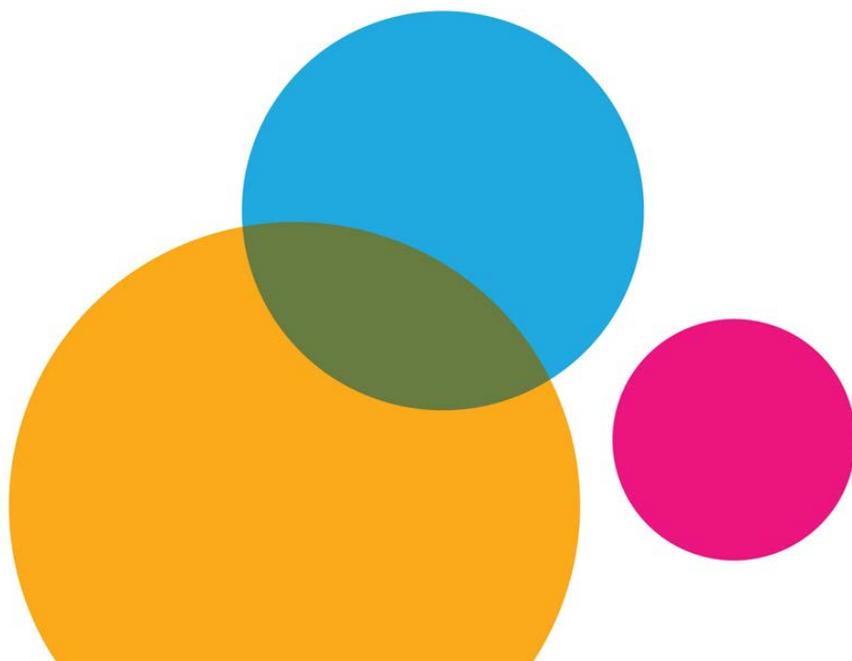
Questionnaires and other documents used in the main phase of fieldwork

1. Household Letter
2. Information Sheet
3. Consent Booklet [YP less than 18 years]
4. Consent Booklet [YP more than 18 years]
5. Blood Pressure Information Sheet
6. Summary of Publications Sheet
7. Household Composition
8. Young Person Main Questionnaire
9. Young Person Self-complete Questionnaire
10. 'Drinkogram' card
11. Young Person Cognitive Tests
12. Parent / Guardian One Main Questionnaire
13. Parent / Guardian One Sensitive Questionnaire
14. Parent / Guardian Two Main Questionnaire
15. Parent / Guardian Two Sensitive Questionnaire
16. Time-use / Food frequency diary
17. Parent Living Elsewhere Information Sheet
18. Parent Living Elsewhere Postal Questionnaire



Chapter 1

INTRODUCTION





1 INTRODUCTION

1.1 INTRODUCTION

Growing Up in Ireland is a national longitudinal cohort study. The project started in 2006 and has followed two groups of Irish children, Cohort '98 (formerly called the Child Cohort, most of whom were born in 1998) and Cohort '08 (formerly called the Infant Cohort, most of whom were born in 2008). The principal aim of the project is to examine the factors which shape the development of children in contemporary Ireland and, through this, to contribute to the setting of responsive policies and to the design of services for children and their families.

This report describes the design and instrumentation on *Growing Up in Ireland's* Cohort '98 at age 17/18 years. The cohort members have reached age 18 or are approaching this age. This is an important milestone in the life of a young person as it reflects not just a new stage in the life course in terms of developmental maturity but is important in a broader societal context, with a range of civil rights and responsibilities conferred around this time. These include the right to vote, the right to work full time, and the right to consume alcohol.

This report is intended to provide a resource for researchers and policymakers to understand the rationale for, and background to, the measures included in the GUI study of 17/18 year olds. This chapter begins with a brief description of the background and objectives of *Growing Up in Ireland*. A summary of the conceptual framework underlying the project is also provided and this report documents how this framework is reflected in the instrumentation which was used when the young people at the centre of the study were 17/18 years of age.

1.2 BACKGROUND AND OBJECTIVES

The principal objective of *Growing Up in Ireland* is to provide evidence-based research into the development and well-being of children and young people and the factors that positively and negatively affect different developmental trajectories. This information will be used in policy development and the provision of services for young people and their families.

Work on the study began in 2006 led by a consortium of researchers in the Economic and Social Research Institute (ESRI) and Trinity College Dublin (TCD). There have been two phases of *Growing Up in Ireland*; the first phase ran from 2007 to 2014 and the second phase runs from 2015 to 2019. The first phase of the study recruited two cohorts of children: a nine-month cohort of approximately 11,100 infants (Cohort '08) and a nine year cohort of 8,568 children (Cohort '98). Cohort '98 was subsequently revisited when the young people were 13 and 17/18 years of age and the Cohort '08 was revisited when the children were 3 years and 5 years and 9 years with a postal survey of parents at 7 years of age. The focus of this technical report is on the instrumentation used for data collection among Cohort '98 when they were aged 17/18.



Growing Up in Ireland was commissioned by the Irish Government. It is funded by the Department of Children and Youth Affairs and is overseen by the Department of Children and Youth Affairs in association with the Central Statistics Office. The second phase of the study also received a contribution from the Atlantic Philanthropies.

The study has nine aims as follows:

1. Describe the lives of Irish children; establish what is typical and normal as well as what is atypical and problematic;
2. Chart the development of Irish children over time; examine the progress and wellbeing 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 early child 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.

1.3 CONCEPTUAL FRAMEWORK

1.3.1 SUMMARY OF THE CONCEPTUAL FRAMEWORK

The conceptual framework for **Growing Up in Ireland** draws heavily on the bio-ecological model developed by Urie Bronfenbrenner (Bronfenbrenner and Morris, 2006). This model and other influences on the GUI study are discussed in detail in an earlier **Growing Up in Ireland** publication (Greene et al, 2010) so will be briefly summarised here.

The bio-ecological model proposes studying development in context, placing the young person at the centre of the model and arguing that the young person's developmental outcomes are the result of a complex interplay of the biological make-up of the young person and the environmental setting within which the young person is embedded (Smith, Cowie & Blades, 2011). Bronfenbrenner proposes that the young person's ecology (context) constitutes a multi-layered set of nested and interconnecting environmental systems which influence the young person's development but with varying degrees of



directness; these systems are categorised at four levels - the Microsystem, Mesosystem, Exosystem and Macrosystem.

The structures and the individuals closest to the young person, referred to as the ‘microsystem’, exert the most influence on the young person. Examples of a ‘microsystem’ include the home environment of parents and siblings, the school/college environment with teachers, lecturers and peers or the work environment with colleagues and managers. At around 17/18 years of age, research indicates a shift within the young person’s microsystems, with young people prioritising their peer group and beginning, to some extent, to distance themselves emotionally from their parents (Spithoven et al, 2017). The links between the various microsystems in which the young person directly participates is called the ‘mesosystem’. The level of parental involvement in the young person’s education is an example of a ‘mesosystem’ as parental involvement in education has been shown to play an important role in the young person’s school engagement and educational achievement (Steinberg et al, 1992).

The ‘exosystem’ is made up of those structures, institutions and settings that are not in direct contact with the young person but nonetheless exert an important influence on their quality of life; for example, access to funding/college grants may affect an individual’s options for applying to higher education, or parental employment can have an influence on the young person’s motivation to seek employment and on their work values (Johnson, 2002). Finally, the ‘macrosystem’ consists of the culture-specific ideologies, attitudes and beliefs that shape a society’s structures and practices. For example, it is consistently portrayed in the media and in society that “thin is beautiful”, and there is evidence that this may contribute to young girls developing body dissatisfaction and in turn disordered eating as they attempt to conform to this societal norm (Yamamiya et al, 2005). The macrosystem may be more salient for young people at the age of 17/18 as they gain the right to vote and may become increasingly aware of broader political and social issues.

Table 1.1 Examples of *Growing Up in Ireland* variables for 17/18 year olds in each layer of the bio-ecological model

Layer	Sample Topics
Young Person	Expectations for the future in terms of education and occupation, extent to which they feel they are an adult
Microsystem	Parent/young person relationship as the young person becomes more independent, peer relationships, romantic relationships
Mesosystem	Parent involvement in, and financial support for, the young person’s decisions about further and higher education
Exosystem	Access to health care, including support for psychological difficulties, social welfare regulations, funding for college
Macrosystem	Citizenship, nationality
Chronosystem	Transitions to further/higher education or employment, leaving the parental home

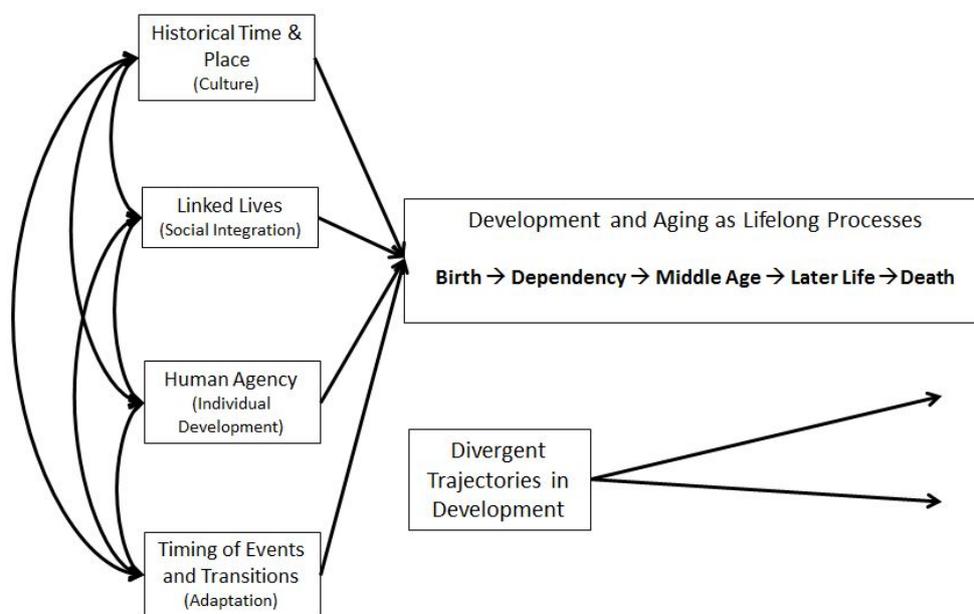
These variables are discussed in detail in the remainder of the report.

As well as drawing on Bronfenbrenner’s ecological model, the ***Growing Up in Ireland*** study is informed by international developments in life-course theory (see, for example, Figure 1.1). This body of work



points to the dynamic nature of development over the life-course, emphasising the role of human agency and the way in which trajectories are shaped and reshaped by a complex set of relationships and processes (see, for example, Elder and Giele, 2009).

Figure 1.1 Elements of the life-course paradigm. Adapted from Elder and Giele (2009)



1.3.2 FROM CONCEPTUAL FRAMEWORK TO INSTRUMENTATION FOR THE 17/18-YEAR-OLD

The project has been designed to record an array of factors that are influential in the young person’s development at all stages of their life. As noted by Sanson et al. (2005), “an outcome is an attribute of the child at a particular point in time” (p.5). Outcomes are generally influenced by a range of inputs; key inputs include social class, parental income, parental education and health status. The young person’s own attributes, such as their personality, are also influential in current and later outcomes.

Since the cohort was 9 years of age, *Growing Up in Ireland* has focused on the following outcomes among young people:

- Physical health and development;
- Social/emotional/behavioural wellbeing;
- Cognitive outcomes and educational achievement.

Reflecting the stage of the life-course of the young people, a further set of outcomes was included at 17/18 years of age, namely, economic and civic participation. This inclusion reflects young people’s growing awareness of (and capacity to engage with) broader social and political issues and their



acquiring the right to vote at 18 years of age as well as their involvement in paid work, either on a part-time basis while at school/ college or after entering the labour market.

The young person's voice is central to the study at 17/18 years of age so they are the primary source of information across the four key domains covered. In addition, their parents/guardians are interviewed about the young person and the family context. This provides important contextual information (for example, on household income) as well as capturing the extent to which parents act as a source of support to young people and parental perceptions of the young person's developmental trajectories. As in previous waves, information was also gathered directly from the non-resident parent (if applicable). Also as in previous waves, information on the school context was collected from school principals for those young people who were still in second-level education at the time of the survey.

In all previous rounds of *Growing Up in Ireland* (when the Cohort '98 children ranged in age from 9 to 13 years) the resident parent(s)/guardian(s) of the Study Children were referred to as Primary and Secondary Caregivers – self-defined by the family in terms of level of care provision to the Study Child. In practice, in almost all cases the Primary Caregiver was the Study Child's mother (biological or otherwise) and the Secondary Caregiver was the partner/spouse of the Primary Caregiver.

From this phase of the study onwards, respecting the developmental stage of the 17/18 year olds, the term "Study Child" will be replaced by the term "Young Person" when referring to current findings at this phase of the study. Furthermore, as the Young People move into adulthood at 17/18 years of age the Study Team felt that it was no longer appropriate to refer to their parent(s)/guardian(s) as Primary or Secondary "Caregiver" and, accordingly, the terms "Parent One" and "Parent Two" were adopted instead.

The broad range of information gathered in the study reflects the acknowledged importance of the proximal and distal contexts of the young person's life. Information has therefore been gathered about the young person's health and exercise, activities, family relationships, personality, romantic and peer relationships, access to services, educational opportunities, and the area in which they live. Information was also gathered about parental health, education and employment, thus facilitating consideration of the influence of parental characteristics on the young person's development. Collecting data on significant events in the young person's life, and the longitudinal aspect of the study, will contribute to our understanding of individual pathways and trajectories.

The chapters in the remainder of this report show how the instrumentation was designed to capture the key developmental outcomes at 17/18 years of age, along with the most important factors influencing young people's development. As is outlined below, the instrument design process relied on a comprehensive review of the relevant literature (Murray, McNamara, Murphy, Neary & James, forthcoming) and input from the Scientific Advisory Group, the international advisors, stakeholder groups and consultation sessions with young people. The pilot study findings (see Williams, Murray,



O'Mahony, Quail, O'Reilly, Thornton & Neary, forthcoming) provided additional information on the extent to which measures were suitable for 17/18 year olds in Ireland and formed the basis for dropping or revising some measures.

1.4 STRUCTURE OF REPORT

Chapter 2 outlines the approach to sample design and the response rates achieved across the waves of the study. Chapter 3 describes how the instruments were developed and the extent to which they drew upon international child cohort studies and inputs from the Scientific Advisory Group, focus groups with young people, the International Advisors and the Research Ethics Committee. Chapter 4 looks at ethical considerations, in particular the ethical review procedure. Chapter 5 presents a broad overview of the various levels of instruments and questionnaires used in the survey aspect of Wave 3 of Cohort '98 (at 17/18 years). Chapter 6 details the instruments used in the household with Parent One and Parent Two. Chapter 7 summarises the instruments used with the Young Person. Chapter 8 describes the cognitive tests and time-use diary administered to the Young Person. Chapter 9 looks at the other instruments and measures used in the study, including the questionnaire sent to non-resident parents and the Young Person's principal. Finally, a summary chapter is presented in Chapter 10.





Chapter 2

THE SAMPLE AND DATA





2 THE SAMPLE AND DATA

2.1 INTRODUCTION

This chapter considers the methodology and sample design for Wave 3 of Cohort '98 (the Child Cohort) at 17/18 years of age. Consideration is given to the composition of the longitudinal sample, followed by discussion of the levels of inter-wave attrition and methods used to mitigate it. Procedures for statistically reweighting the data to ensure that they are fully representative of the population are also discussed.

2.2 COMPOSITION OF THE LONGITUDINAL SAMPLE

As noted in Thornton et al. (2016), *Growing Up in Ireland* is a longitudinal study based on a fixed panel design. For Cohort '98, this meant that the children and their families recruited into the study at 9 years of age were re-interviewed at 13 and subsequently 17/18 years of age. After the initial sample selection at 9 years of age, no additions were made to the sample. So by 17/18 years of age the sample represents the children/young people (and their families) who were resident in Ireland at 9 years of age and who continued to live in the country when they were 17/18 years old. There are, of course, young people who lived in Ireland at 17/18 years of age but who were not resident at 9 years of age. These are effectively new 'entrants' to the country since the recruitment of the sample. This group of young people is not part of the longitudinal population under consideration in the fixed panel design of the study.

At Wave 1 of the project a total of 8,568 9-year-olds and their families were interviewed. All of these families were approached for re-interview when the Study Child was 13 years old. Table 2.1 summarises survey response at that time and shows that 7,525 families participated in the study when the Study Child was 13 years of age, giving a response rate of 89 per cent. A further 665 families refused to participate at that time. The bottom row in the table indicates that 101 13-year-olds (and their families) no longer lived in Ireland when approached for interview and so are excluded from the target population – they are no longer growing up in Ireland and so do not form part of the longitudinal population. The reader should note that some of the 80 families who were identified as having 'Moved/no forwarding address' may also have moved outside the country. As the Study Team was not able to definitively say this was the case, they were left in the valid population and in the calculation of response rates in the table.

Table 2.1 Summary survey response for Wave Two, Cohort'98

Outcome Wave Two	No. of families	Per cent
Completed	7,525	89%
Refused	665	8%
Moved/No forwarding address	80	1%
Persistent broken appointments	98	1%
No contact/unavailable within fieldwork period	49	<1%
Other	50	<1%
TOTAL ABOVE	8,467	100%
No longer living in Ireland/Deceased	101	-



The target sample at Wave 3 (when the young people were 17/18 years of age) was made up of most (but not all) of the Wave 2 sample—291 families were not re-issued in Wave 3, usually because they were no longer eligible (i.e. living outside Ireland/deceased) or because the family had given a definite refusal to participate in Wave 2.¹ The table shows that 8,275 families were issued to field interviewers at Wave 3 of the study.

Table 2.2 Response outcomes in Wave 3 (at 17/18 years of age) by outcome at Wave 2

	Outcome in Wave 2 (age 13)		Total
	Completed	Not completed	
Response in Wave 3 (at 17/18 years)			
Completed	6,039	177	6,216
Non-response	1417	571	1,988
Not eligible (living outside Ireland or deceased)	*	<30	71
Total	7,519	756	8,275
Total Eligible (completed plus non-response)	7,456	748	8,204
Response rate (completed / eligible)	81%	24%	76%
Breakdown of non-response			
Completed by parent only (not by 17=-year old)	*	<30	213
Refused	912	407	1,319
Moved, no address	76	60	136
Other	*	<30	109
No contact	140	71	211

Note: Cells with fewer than 30 cases are not shown, in compliance with statistical disclosure rules. *in order to preserve the <30 figure only totals are shown for these cases.

The response rate at 17/18 years old (completed divided by eligible) was 81 per cent of young people who took part at 13 years of age. Response rates were much lower among young people who had refused or otherwise had not participated in the study at 13 years of age. (24 per cent). This is very much in line with expectations.

The reader should note from Table 2.2 that in 213 families the Young Person’s parent(s) completed the questionnaire but the Young Person did not. In preparing the data it was decided to exclude these cases from the reweighted files for analysis since most of the information recorded at 17/18 years of age was collected from the Young Person him/herself. As with all non-participation, this set of families is accounted for in the reweighting procedure. To have included them in the files for reweighting and public archiving would have meant that effectively 2.5-3.0 per cent of cases would have been missing on all of

¹ A total of 101 of the Wave 2 families were identified in the course of Wave 2 fieldwork as no longer living in Ireland. A further 100 families said they did not wish to participate in that round or subsequent rounds of the study. Families for whom there was no known address despite significant efforts at tracing them in Wave 2 (71 cases) were not included in the sample for Wave 3.



the young person's information. The best way to address this issue is to exclude these cases and reweight the data accordingly.

Overall, 8,568 families were interviewed in Wave 1 and 6,216 families were interviewed in Wave 3. Excluding the 172 families who had left the country, there is 74 per cent retention² of the original sample of 9-year-olds who are believed to have been still resident in Ireland at 17/18 years of age.³

Where one of the parents was no longer resident in the home, they were sent a postal questionnaire asking about their relationship with the Young Person and about their own characteristics. Of the 222 non-resident parents for whom Parent One provided contact details, 44 per cent were completed and returned.

The survey of school principals was sent to all 720 second-level schools in Ireland. The response rate was 70 per cent of all schools. From the perspective of the Young Person, school information was provided in relation to 78 per cent of the sample.

2.3 TRACKING STRATEGIES AND DIFFERENTIAL INTER-WAVE ATTRITION

Non-response is a feature of all sample surveys. It is highly undesirable, especially if it is found to be non-random or concentrated in certain sub-groups of the target sample. Non-response from one round to another in a longitudinal survey is referred to as inter-wave attrition. As discussed in detail in Thornton et al. (2016), it may be mitigated by implementing tracking procedures aimed at tracing respondents who change address between successive interviews, to try to keep them included in the sample. Couper and Ofstedal (2009) note the distinction between forward or proactive tracing methods, on the one hand, and retrospective tracing methods on the other (p.189). Proactive forward tracing refers to procedures put in place to update contact addresses or other information prior to a round of fieldwork. Retrospective tracking methods are those put in place after fieldwork in the second or subsequent rounds of the survey, after it has been identified (usually by an interviewer) that the participant has changed address since his/her previous interview.

Proactive tracing procedures

In *Growing Up in Ireland* a number of proactive procedures were used. These included recording alternative contact information on two of the respondent's close friends, family members (outside their own household) or work associates in the course of each round of interview. These were the contact details of someone whom the Study Team could contact at the following round of the Study if it was

² This retention rate is broadly comparable with other cohort studies such as BCS70 or the Longitudinal Study of Young People in England which have spanned the teenage years.

³ This is probably an under-estimate of the numbers who were actually no longer living in Ireland at Wave 3 of the study. Many of the 80 families who were identified in Wave 2 fieldwork and the 136 families identified in Wave 3 fieldwork as 'Moved/no forwarding address' may actually have been no longer living in Ireland. As this cannot be definitively verified, they were not excluded from the target sample. This will have the effect of reducing the estimated retention levels among the original sample.



found that the respondent had moved address between interviews. Respondents in each Wave were asked to provide contact details of an employer (if relevant) and also a close family member (such as a grandparent of the Study Child). In addition, respondents were given a 'change of address' postcard by the interviewer and asked to fill in their new contact details and return them to the Study Team in the event of them changing address before the next interview.

Retrospective tracing procedures

Retrospective tracing procedures were also adopted in the study. When field interviewers found that a family was no longer resident at the address known to the Study Team, they attempted to obtain a new address from the current occupant or neighbours at the respondent's former address. In doing this, the interviewer told the current occupier or neighbour that s/he wished to track the family who had previously participated in a survey, but did not divulge that it was the *Growing Up in Ireland* study or the nature or content of the project in question. New addresses located in this manner by field interviewers were passed back to Head Office for reallocation to field staff.

Where a new address could not be found by the field interviewer, field support staff in Head Office accessed the alternative contact details provided for tracing purposes by the family at the previous interview. These alternative addresses were contacted to secure a current address for the Study Child and this new address was then allocated to a field interviewer. In situations in which the alternative contact details from a round of interviews included both a private and a business (employer) address, the private address was used first, in preference to the employer's address.

A final source of potential tracking was the Child Benefit Register maintained by the (then) Department of Social Protection. In the course of the first round of interviews, respondents were asked to sign a consent form giving permission to the Study Team to request the Department of Social Protection to track them (using their Personal Public Service Number (PPSN)) through the Child Benefit Register, in subsequent waves of the Study, in cases where the family changed address. To minimise the burden on the Department this approach was used as a final stage in tracing, only after field and other approaches (such as alternative contact details) had been exhausted.

Notwithstanding the tracing procedures put in place to minimise inter-wave attrition and non-response, it is unfortunately an unavoidable feature of all longitudinal surveys. As noted above, this becomes particularly problematic when non-response is systematically associated with some sub-groups more than others.

To assess the extent to which non-response at 17/18 years was systematically associated with family or other characteristics, Table 2.3 summaries response rates at 17/18 years of age by a selection of background characteristics when the Study Child was 13 years of age.

It is clear from the table that response is strongly related to the level of education of Parent One as well as family income and social class, in all cases being higher among families in the more advantaged groups.



It should be noted that some of these groups, particularly those with no or only primary education, are very small in size. The lowest rate of participation is among those whose income was missing from the 13-year interview. Prior analysis of the data suggest that these households are generally among the most disadvantaged in the study. Participation at 17/18 years was also lower among one parent families, though some of this may reflect the background characteristics or composition of family types – one parent families being more likely to be disadvantaged in terms of income, education and social class grouping.

Table 2.3 Response rates at 17/18 years by background characteristics at 13 years of age.

	Completed at 17/18	N cases
Parent One Education		
None or primary	66%	120
Lower Secondary	77%	755
Upper secondary/Vocational/ Upper sec. + Vocational	81%	2386
Non Degree	83%	1915
Primary degree	88%	1332
Postgraduate degree	89%	1015
Family type		
One-Parent-1 or 2 children	76%	684
One-Parent-3+children	77%	307
Two-Parent-1 or 2 children	83%	3442
Two-Parent-3+children	85%	3092
Equivalised family income quintile		
Quintile One (low)	79%	1080
Quintile Two	80%	1185
Quintile Three	83%	1312
Quintile Four	85%	1618
Quintile Five (high)	88%	1751
Income Missing	77%	579
Family Social Class		
Professional workers	89%	1179
Managerial and technical	85%	3018
Non-manual	82%	1387
Skilled manual	80%	888
Semi-skilled	77%	547
Unskilled	67%	82
Never worked outside the home	76%	414
Study Child's gender		
Male	83%	3682
Female	83%	3843
Drumcondra Reasoning Test Quintile		
Quintile One (low)	77%	1430
Quintile Two	83%	1430



	Completed at 17/18	N cases
Quintile Three	85%	1429
Quintile Four	86%	1430
Quintile Five (high)	88%	1429
Drumcondra Reasoning Test Missing at 13 years of age	73%	377
TOTAL	83%	7525

Note: Table based on the 7,525 families who participated at 13 years of age.

There is no difference in participation at 17/18 years of age between males and females. The final section in the table indicates, however, that there is a strong link between participation at 17/18 years and how well the Study Child did in the Drumcondra Reasoning Test (DRT) at 13 years of age. For example, 77 per cent of the 13-year-olds who were in the lowest quintile of scores on the Drumcondra Reasoning Test participated at 17/18 years of age, compared with 88 per cent of 13-year-olds who were in the highest quintile of scores on the test. Participation at 17/18 years of age was lowest among 13-year-olds who did not complete the Drumcondra Reasoning Test. Only 73 per cent of 13-year-olds who did not sit the test (those for whom the results were missing) took part in the study at 17/18 years of age. Non-completion of the DRT at 13 years may reflect reasoning ability on the part of the 13-year-old (perhaps the least capable may have been intimidated by the test at that time). Equally, some of this higher level of non-response among those who did not complete the DRT may be taken as a proxy measure of the Study Child's engagement with the project.

Table 2.4 presents an alternative way of considering variations in inter-wave attrition between 13 and 17/18 years of age. This summarises 'odds-ratios' from a logistic regression analysis.⁴ The figures in the table represent the odds of completing the survey at Wave 3 compared to not completing it versus the same odds for the reference group.

Table 2.4 Odds ratios of participating in Wave 3 among those who participated in Wave 2

	A. Bivariate Odds Ratios	B. Multivariate Odds Ratios
Parent One Education: Ref: Primary/None		
Junior Certificate	1.41	1.25
Leaving Cert. or Vocational	1.90**	1.43
Cert./Diploma	2.30**	1.58**
Degree or higher	3.22**	1.88*
Family type ; Ref: One-parent, 3+children		
One-parent/1-2 children	0.92	0.82
Two-parent/1-2 children	1.40**	1.13
Two-parent/3+ children	1.69**	1.36*

⁴ An odds ratio greater than 1 indicated a higher likelihood of completing the survey than the reference category while an odds ratio less than one indicates a lower likelihood.



	A. Bivariate Odds Ratios	B. Multivariate Odds Ratios
Equivalised family income; Ref: Quintile 1 (low)		
Income quintile 2	1.05	0.99
Income quintile 3	1.22*	1.03
Income quintile 4	1.40**	1.07
Income quintile 5 (high)	1.77**	1.15
Income missing	0.84	0.69**
Family Social Class; Ref: Never worked/Class not assigned		
Professional	2.45**	1.25
Managerial/Technical	1.61**	0.93
Non-manual	1.36*	0.96
Skilled Manual	1.22	0.93
Semi-skilled manual	0.98	0.79
Unskilled Manual	0.63	0.63
Child's gender; Ref: Girl		
Boy	0.96	0.89
Quintile on DRT score at 13 years of age; Ref: Quintile 1 (low)		
DRT quintile 2	1.44**	1.32**
DRT quintile 3	1.70**	1.46**
DRT quintile 4	1.94**	1.62**
DRT quintile 5 (High)	2.35**	1.83**
DRT missing	0.69**	0.65**

Note: ** p<.01, * p<.05.

Column A in the table presents the bivariate odds ratio of participation at 17/18 years among families who participated at 13 years of age. This means that only the individual variable in the table is considered in terms of participation (or not) in Wave 3. In contrast, Column B shows the odds ratios of participation based on a model which simultaneously controls for all of the background characteristics in the table.

Column A indicates that participation in Wave 3 of the study was strongly related to family characteristics such as the level of education of Parent One, family income and social class. For example, a 17/18-year-old whose Parent One was educated to degree level was 3.2 times more likely to participate in the most recent round of interview as compared to their counterpart whose Parent One had primary-level or no education.

One can see that in terms of individual-level characteristics of the 17/18-year-old, gender was not a significant factor in the chances of participation in the survey at this round of interviewing. In contrast, how well the young person did in their Drumcondra Reasoning Test (DRT) at 13 years of age was highly significant – a young person who was ranked in the top quintile of scores in the DRT at 13 years was 2.35 times more likely to participate at 17/18 years of age as compared to one who was in the lowest quintile. As noted in our discussion of Table 2.3, the figures indicate that 13-year-olds who did not complete the DRT at 13 years (score was missing) were significantly less likely (only 0.69 times the odds) to participate



at 17/18 years of age than those in the lowest quintile of scores (the reference group). The odds ratio of 0.69 indicates that those who did not complete the DRT at 13 were 31% less likely to participate in Wave 3 than those who participated but had a DRT score in the lowest quintile (the reference group).

The figures in Column B provide comparable information on multivariate odds ratios – i.e. controlling for all variables simultaneously. When all variables are taken into account, the effect of some factors (such as social class, family type and income) becomes insignificant while the size of the coefficients becomes substantially moderated for other factors such as education. The level of education of Parent One and the Young Person’s performance in the DRT at 13 years of age remain the most consistently and systematically significant predictors of participation in the 17/18 year survey.

2.4 REWEIGHTING THE DATA

The statistical re-adjustment of the data must take account of the population to which weighting is being carried out, the study’s design as well as response / non-response patterns in successive rounds. With three waves of data now available, analysts can focus on children and families who participated at 9 years, 13 years and 17/18 years of age or the subset who participated at various combinations of these ages. The full sample of 8,568 Wave 1 participants breaks down in terms of response patterns at Waves 2 and 3 as set out in Table 2.5 below.

Table 2.5 Breakdown of Study Children/Young people and their families according to participation at 9 years, 13 years and 17/18 years of age

File Option	Participated at:	No. of Study Children/Young People
	9 years only	866
	9 years and 13 years only	1,486
A	9 years, 13 years and 17/18 years	6,039
B	9 years and 17/18 years only	177
	TOTAL	8,568

These response patterns mean that there are 8,568 children and their families available for analysis in cross-section at 9 years of age. If one is interested in transitions from 9 years to 17/18 years of age, one can use 6,216 cases for analysis (the combination of subgroups A and B above). If the focus of investigation is child development at each observation from 9 years, 13 years and 17/18 years of age, then 6,039 cases are available for analysis (sub-group A in Table 2.5).

In preparing the Wave 3 data, two sets of weights and grossing factors were calculated. The first set was generated for use in analysis based on the 6,039 Children/Young People and their families who took part in all 3 Waves. The second set of weights and grossing factors was generated for use in analysis of 17/18-year-olds who were also interviewed at 9 years of age – the slightly larger group of 6,216 cases.

A standard iterative procedure (known as the GROSS system) was used to generate both sets of weights (i.e. those based on the 6,039 Children/ Young People who participated in all 3 waves of the study as well



as the 6,216 families who participated only at 9 and 17/18 years). This system is based on a minimum information loss algorithm which fits population marginals within a regression framework and adjusts the sample according to pre-specified characteristics to ensure that it produces estimates which match population totals. This is the system used in previous rounds of *Growing Up in Ireland* and has been used extensively by the Economic and Social Research Institute (ESRI) since 1996.⁵

The sample weights for Wave 3 were constructed by first generating an inter-wave attrition weight to adjust the composition of the completed Wave 3 sample to the Wave 2 sample by taking account of: (a) 13-year-olds who lived in Ireland at Wave 2 but who had been identified as having moved out of the country by Wave 3 or who had deceased between Waves 2 and 3 and (b) variations in Wave 3 response rates according to background characteristics. The former adjustment accounts for changes in the longitudinal population by excluding children/young people who no longer live in Ireland (or who have deceased) since their previous interview. The latter adjusts for differential attrition rates between Waves 2 and 3. The variables or background characteristics which were used to adjust for Wave 2 to Wave 3 attrition and so generate the inter-wave attrition weights were those which were considered in the previous section and outlined in Table 2.3 and 2.4 above.⁶ These were:

- Educational attainment of Parent One in previous interview
- Family structure (four-fold small/large one-parent/two-parent families) in previous interview
- Family income quintile in previous interview
- Family social class in previous interview
- Child/Young person's gender
- Position in quintile distribution on Drumcondra Test in previous interview.

When the Wave 3 sample was adjusted in line with both changes in the population and differential interwave attrition, a new Wave 3 weighting/grossing factor was generated by taking the product of the attrition weight and the Wave 2 weighting/grossing factor. The Wave 2 weight incorporated the original design and differential response at Wave 1 as well as attrition between Waves 1 and 2.

⁵ See, for example, Gomulka, J., 1992. "Grossing-Up Revisited", in R. Hancock and H. Sutherland (Eds.), *Microsimulation Models for Public Policy Analysis: New Frontiers*, STICERD, Occasional Paper 17, LSE. Gomulka, J., 1994. "Grossing Up: A Note on Calculating Household Weights from Family Composition Totals." University of Cambridge, Department of Economics, Microsimulation Unit Research Note MU/RN/4, March 1994.

⁶ Other characteristics of the family or young person were also investigated, to assess whether or not they were significantly related to inter-wave attrition. These included whether or not the Primary Care Giver was born in Ireland; depression status of the PCG; the 17/18-year-old's physical and mental health (scores on Short Mood & Feelings Questionnaire (SMFQ) and Strengths and Difficulties Questionnaire (SDQ)) and self-esteem (Piers Harris scale). Although various significant bivariate relationships were identified between attrition and some of the characteristics in question, these were not found to be systematic or to retain significance when other variables were included as controls in the model.



In generating the two sets of weights/grossing factors, the characteristics of the family or child at the previous round of their interview was used. This means that when generating the adjustment factors for use with the 6,039 families who had participated in all three rounds of the study, the characteristics from the 13-year interview were used.

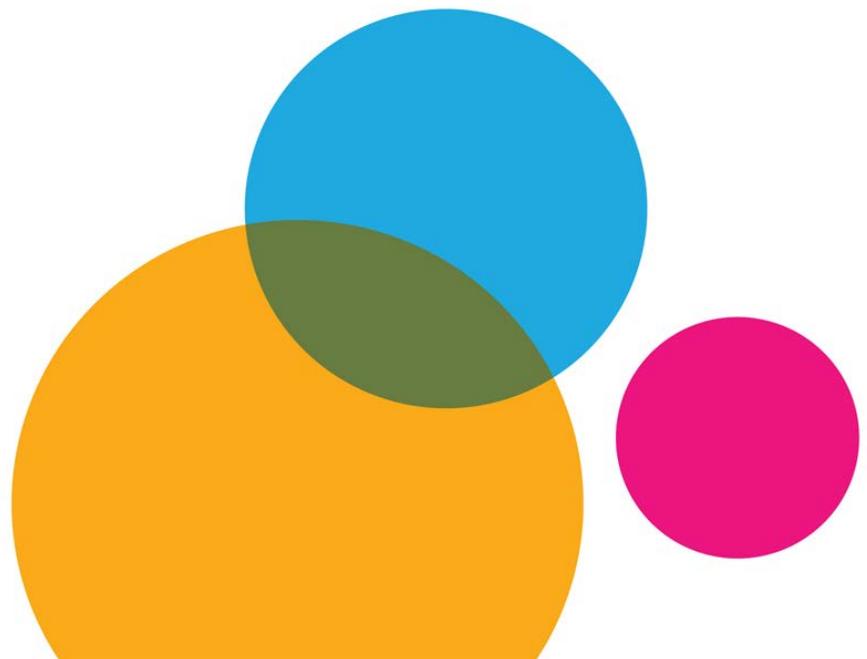
When generating the weights/grossing factors for use with the slightly larger set of 6,216 families who participated at 9 years and 17/18 years of age but not at Wave 2, the characteristics at Wave 2 were used in respect of the 6,039 families who had participated at all 3 rounds (and most recently in Wave 2 at 13 years of age). The characteristics which were recorded at Wave 1 (at the 9-year interview) were used in respect of the remaining 177 families who participated when the Study Child/Young Person was 9 years and 17/18 years but not at 13 years of age. This means that the most recently available information was used in respect of all families in deriving the two sets of weights and grossing factors.





Chapter 3

INPUT INTO INSTRUMENTS





3 INPUT INTO INSTRUMENTS

3.1 INTRODUCTION

This chapter describes the various groups of experts and others who had input into the development of the instruments and procedures used in wave 3 of the Cohort '98 of *Growing Up in Ireland*, along with the processes through which that input was received. The groups involved included the Scientific Advisory Group (SAG), the International Advisors, the Young Person Consultative Process and Stakeholder Groups. Other longitudinal studies from which various items have been drawn will also be considered.

3.2 SCIENTIFIC ADVISORY GROUP

The Scientific Advisory Group (SAG) is made up of approximately 50 experts from a range of fields, drawn from many of the third-level and related institutions in Ireland. The Scientific Advisory Group was heavily involved in the development of the questionnaires. A number of meetings were held organised around the developmental outcomes of: health and physical development; socio-emotional development and behaviour; educational and cognitive development; and economic and civic participation. These meetings considered views on procedures and protocols; policy relevance; the appropriateness of inclusion of sensitive themes and topics in the surveys; and the content of the questionnaires – both top-level content as well as the detail of specific scales and questions.

3.3 INTERNATIONAL ADVISORS

Two international advisors who have extensive experience with the Centre for Longitudinal Studies in Britain and who have worked on a number of similar longitudinal studies, including the National Child Development Study (NCDS), German Family Panel PAIRFAM (“Panel Analysis of Intimate Relationships and Family Dynamics”) and the “ESRC 16-19 Initiative”, provided substantial input into the development of the questionnaires at age 17/18 of *Growing Up in Ireland*. Additional input was also received from two international advisors who had been instrumental in the design, development and implementation of the Longitudinal Study of Australian Children (LSAC) and the National Longitudinal Study of Children and Youth (NLSCY). The international advisors provided the study team with very experienced input at all levels and in respect of all topics and procedures, including the substance of the questions and scales, ethical issues around recording details on sensitive topics, and procedural issues on the implementation and administration of the questionnaires.

3.4 THE YOUNG PERSON CONSULTATIVE PROCESS

A series of focus groups were held with 17-year-olds drawn from the Department of Children and Youth Affairs’s Comhairlí na nOg (National Youth Committees). These national committees are made up of children and young people of all ages and have been used extensively by the



DCYA as a mechanism for consultation on a very broad range of proposed government policies and initiatives relating to children, young people and their families. The Study Team (along with facilitators from the DCYA) met with twenty 17-year-olds drawn from these national youth committees for a series of 'open space' discussions in which topics of relevance to young people in this age group were identified. These very free-ranging discussions with the young people were followed by slightly more structured focus group discussions, again with a view to exploring the main issues that are of importance to 17-year-olds and to discuss how best to record the information in question, especially in light of the highly sensitive nature of some of the topics involved. Issues that arose during the focus group discussions included: different formats that could be used to administer the questionnaire (face to face vs Computer Assisted Self Interview); the importance of friendship at this age group; and romantic relationships.

The Study Team also recruited a focus group of 17-year-olds from a school which has a designated disadvantaged status in the Irish second-level system. This component was included to ensure that views from young people across as broad a range as possible of social backgrounds (especially those from families who were potentially more socially disadvantaged) would be heard in the development of the study. Issues that were raised in this focus group included: lower expectations in relation to achievement and lack of information in relation to college options. For example, some students mentioned they did not realise they needed a certain subject to apply for a particular college course and when they were provided with this information, it was too late to change their options.

3.5 STAKEHOLDER GROUPS

Members of the Study Team also met with the stakeholder groups and feedback from these meetings was incorporated into the development of the instrumentation and the design of the project in general. The Study Team worked closely with the funding bodies and associated government departments and agencies, including the Department of Children and Youth Affairs, the Department of Education and Skills, the Department of Health, the Irish Youth Justice Service and the Central Statistics Office.

3.6 RESEARCH ETHICS COMMITTEE

This phase of *Growing Up in Ireland* was carried out under ethical approval granted by an independent Research Ethics Committee set up by the Department of Children and Youth Affairs. The pilot and main studies underwent separate review procedures. Reports on the pilot study were submitted to the Ethics Committee. The committee was very active in its consideration of all of the materials and procedures used in *Growing Up in Ireland*. The Study Team met with the Ethics Committee to discuss the project on several occasions, and all recommendations were acted upon before a final version of all materials and procedures was agreed and implemented.



3.7 OTHER LONGITUDINAL STUDIES

In developing the instrumentation, the Study Team sought to synchronise with contemporary longitudinal child cohort studies, both to draw on the benefits of including items previously used in other studies and to enable later comparison. Where items for *Growing Up in Ireland* were based primarily on questions used in other studies, the sources have been indicated in the text. Some of the more significant of these studies have been outlined below.

3.7.1 GROWING UP IN AUSTRALIA

Growing Up in Australia (Longitudinal Study of Australian Children) is a longitudinal study of children, with two nationally representative cohorts of 5,000 children each. Growing Up in Australia is co-ordinated by the Australian Institute of Family Studies in Melbourne. Their website is at <http://www.growingupinaustralia.gov.au/index.html>.

3.7.2 NATIONAL LONGITUDINAL SURVEY OF CHILDREN AND YOUTH (NLSCY)

The National Longitudinal Survey of Children and Youth (NLSCY) was a longitudinal study of Canadian children from birth to early adulthood which ran from 1994 to 2009. The study's brief was to collect information on factors affecting a child's social, emotional and behavioural development and to monitor the impact of these factors over time. The study was run by Statistics Canada. The study website is at <http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=4450>.

3.7.3 AVON LONGITUDINAL STUDY OF PARENTS AND CHILDREN (ALSPAC)

The Avon Longitudinal Study of Parents and Children focuses primarily on health and development. Data collection through questionnaires is supplemented with information from biological samples (hair, etc.), DNA samples, access to medical records and direct assessments. With an initial sample of 14,541 pregnancies, 13,971 infants at age 12 months were involved in the study. All pregnant mothers were resident in the Avon area of south-west England, with an expected delivery date between 1 April 1991 and 31 December 1992. ALSPAC is run by a dedicated team based at the University of Bristol. The ALSPAC website is at <http://www.bristol.ac.uk/alspac/>.

3.7.4 LIVING IN IRELAND SURVEY

The Living in Ireland survey formed the Irish component of the European Community Household Panel (ECHP), an EU-wide project, co-ordinated by Eurostat, to conduct harmonised longitudinal surveys on the social situation, financial circumstances and living standards of European individuals and households. Living in Ireland data were collected by the ESRI and ran for eight waves, until 2001.



3.7.5 EU-SURVEY ON INCOME AND LIVING CONDITIONS (EU-SILC)

The EU-SILC is an annual, EU-wide survey, conducted in Ireland by the Central Statistics Office, as part of a programme to obtain information on the income and living conditions of different types of households. Commencing in 2003, it is the successor to the Living in Ireland Survey. The study primarily collects cross-sectional data but has a longitudinal component whereby households are observed over a four-year period.

3.7.6 ECONOMIC AND SOCIAL RESEARCH COUNCIL'S 16-19 INITIATIVE

The ESRC's 16-19 Initiative was a study which looked at the processes involved in the economic and political socialisation of young people in England aged 16-19. The research was conducted by research teams in the Universities of Surrey, Sheffield, Liverpool and a combined team from the Universities of Dundee and Edinburgh. The programme entailed a longitudinal study of 5,000 young people growing up in four areas (Swindon, Sheffield, Liverpool and Kirkcaldy) in which two groups, aged 15-16 and 17-18, were followed up for two years. The study ran from 1987 to 1989.

3.7.7 GERMAN PAIRFAM STUDY

The PAIRFAM ("Panel Analysis of Intimate Relationships and Family Dynamics") is a longitudinal study researching partnership and family dynamics in Germany. The sample contains 12,000 people from three birth cohorts 1971-1973, 1981-1983 and 1991-1993, and also includes their partners, parents and children. The focus of PAIRFAM study is on the processes of partnership formation and development, starting and expanding a family, parenting and child development, and intergenerational relationships. In addition, the study focuses on various issues from other life domains. The PAIRFAM website is at <http://www.pairfam.de/en/>.

3.8 PILOT STUDY

Prior to the main phase of fieldwork detailed in this report, the Study Team undertook a pilot study in summer 2015 based on a completed sample of 128 young people. This work is described in detail in a dedicated report (Williams, Murray, Thornton, O'Mahony & Neary, in press). Several refinements were made to instrumentation and procedures for the main phase on the basis of the pilot. These changes included:

- The introduction of a simpler, shorter information sheet for both parental and young person respondents based on feedback from interviewers and in consultation with the project's Steering Group
- Removal of some questionnaire items to (a) shorten the time for completion and reduce the response burden for participants and (b) delete items that did not work as well as expected in terms of variation in responses or negative feedback from participants.

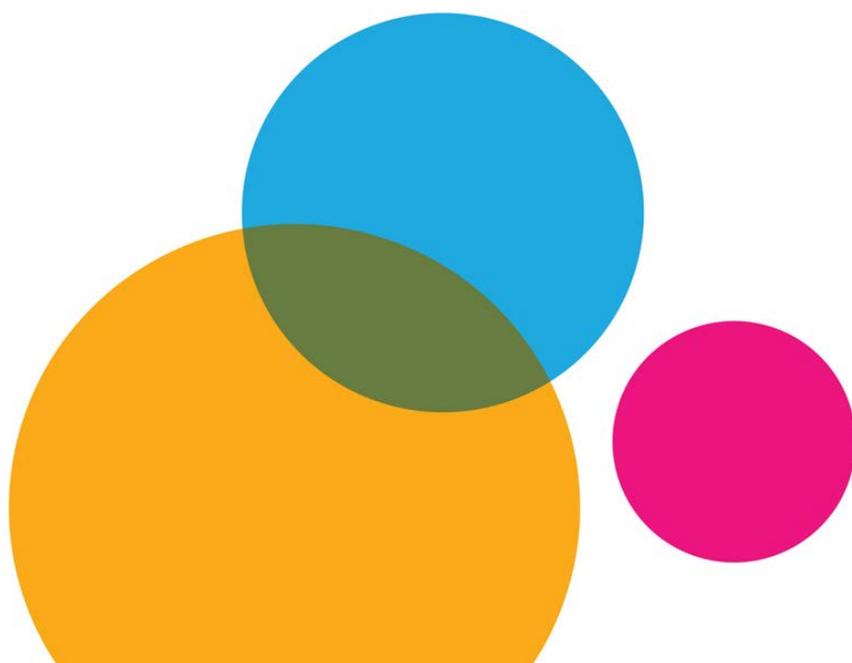


- In a small number of cases, the insertion of new questions as an alternative to some deleted ones or to bridge an apparent gap in coverage prior to main fieldwork.
- The pilot version of the self-complete questionnaire for young people originally had an option to 'skip' certain sections entirely. This was changed for the main study, however, as it appeared from the pilot that too many sections were being skipped – possibly to get through the long questionnaire at a faster rate – and this would distort frequency distributions for the main phase. Instead main phase training for interviewers emphasised the importance of demonstrating to participants how to skip individual questions that they did not wish to answer, rather than skipping entire sections.
- Part of the pilot process included a scoping exercise to examine the feasibility of collecting data via accelerometers; however this was not extended to the main study.



Chapter 4

ETHICAL CONSIDERATIONS





4 ETHICAL CONSIDERATIONS

4.1 INTRODUCTION

Ethical considerations in research, particularly research involving children and young people, are of critical importance. The Study Team identified a number of ethical issues at age 17/18 of *Growing Up in Ireland* and implemented procedures to deal with them, while remaining mindful of its obligations under the relevant Acts in Irish legislation. This chapter summarises the pertinent parts of legislation and describes the way in which ethical guidelines were put into practice. The primary concern at all times was the protection of the young people in the study. Procedures relating to child protection were informed by the Children First Guidelines (Department of Health and Children, 1999). All interviewers, as well as other staff working on *Growing Up in Ireland*, were security-vetted by An Garda Síochána (the Irish Police Service). A full module on ethics was included in the interviewers' training course.

4.2 RELEVANT ACTS

Three Acts are of particular relevance for this study: the Data Protection Acts of 1988 and 2003 and the Statistics Act of 1993.

4.2.1 DATA PROTECTION ACTS 1988, 2003

Data protection concerns the integrity, protection, storage and use of information collected from and about individuals. Under the Data Protection Acts 1988, 2003, the Study Team undertook the following obligations:

1. Fair obtaining and processing: Respondents must be fully aware of the identity of the persons who are collecting the information, the use to which it will be put and the purpose of bodies to whom it will be disclosed. (For further discussion, see Section 4.3.1 on informed consent.)
2. Specifying the purpose: One may not keep information about people unless it is held for a specific, lawful and clearly stated purpose.
3. Further processing of personal information: If one obtains personal information for a particular purpose, one may not use the data for any other purpose and one may not divulge the data to a third party, except in ways that are compatible with the specified purpose.
4. Security of personal data: Stringent procedures are implemented in both the ESRI and TCD to ensure that security of data is preserved at all times.
5. Accurate and up-to-date: One must ensure that the personal information that one keeps is accurate and up to date.



6. Adequate, relevant and not excessive: The data shall be adequate, relevant and not excessive in relation to the purpose or purposes for which they were collected or are processed.
7. Protection of personal data: The data shall not be kept for longer than is necessary for that purpose or purposes. (For further discussion, see Section 4.3.4 on confidentiality.)
8. Right of access to personal data: Any individual about whom one keeps information has a right to see a copy of the data, a description of the purposes for which the data are being held and a description of those to whom the data may be disclosed. (For further information, see Section 4.3.4 on confidentiality.)

4.2.2 STATISTICS ACT (1993)

Growing Up in Ireland is being conducted within the framework of the Statistics Act 1993. This is the legislation underpinning the work of the Central Statistics Office (CSO). The study has been brought under the scope of the Act in accordance with Section 11, whereby the Office is permitted to make arrangements with other public authorities for the conduct of statistical inquiries. While the Act facilitates access to certain data sources for the purposes of the study, the most important implication is that it provides a strong legal basis for the protection against unlawful disclosure of all information collected. Under the Act, all information collected must be treated as strictly confidential and used for statistical purposes only. All persons working on the study are appointed Officers of Statistics. As such they are legally obliged not to disclose, except for the purposes of the study, any matter that comes to their knowledge relating to any person, family, household or undertaking in the course of their statistical work.

Results of the study were to be published in aggregate form and all necessary steps would be taken to ensure that details relating to an identifiable person were not inadvertently divulged.

4.3 PRACTICAL APPLICATION OF ETHICAL CONSIDERATIONS

4.3.1 INFORMED CONSENT

Detailed information sheets were prepared for all participants in the survey. These sheets described the type of information that would be gathered, what would be involved for participants and the longitudinal nature of the *Growing Up in Ireland* study, as well as details on the researchers and funding bodies. All participants were informed of the voluntary nature of their participation and of their right to refuse to answer any questions that they did not wish to answer. Signed consent was obtained from the parent/guardian and the Young Person before any data was collected. If the Young Person was under 18 years of age, the parents provided consent for the 17-year-old's participation in the study. If the Young Person was over



18 years of age, the parents were asked to sign that they understood that their 18-year-old was taking part; however, it was not a legal requirement to obtain their consent.

4.3.2 REPORTING CONCERNS

Interviewers were instructed to report all events or observations which caused them concern during the course of their work to the Study Team using an Incident Report Form, especially in regard to the protection of children or other vulnerable persons. All reported incidents were then considered and acted upon as necessary by the Project Director. Interviewers were provided with an out-of-hours emergency phone number to contact the Project Director if they had serious concerns. The Study Team's Designated Liaison Person collated all incoming reports or incidents that could have a broadly defined child welfare or child protection dimension. These were considered by a standing committee made up of the Designated Liaison Person, the Survey and Data Manager, the Principal Investigator and a Psychologist from the Study Team. This process was carried out within the Children First guidelines. A decision was made on the action necessary for each potential child welfare or protection issue arising in the course of the study. Where necessary, external consultation was made with appropriate advisors, including social workers. If appropriate, a referral was made to relevant welfare services. Such referrals were deemed necessary in fewer than ten cases.

4.3.3 INTERVIEWERS ALONE WITH THE YOUNG PERSON

Interviewers were informed that they could be alone with the Young Person during the course of the interview; however, there were a number of strict conditions. In order to be alone with the 17-year-old, it was necessary for another adult to be present in the accommodation, the interview had to be conducted in a communal room (kitchen, sitting room), the door of the room had to be left open at all times and another adult (18+) had to be present while the Young Person was helped to put on and remove the blood pressure cuff. The interviewer was also instructed to not remain alone with any young children while conducting the interview.

4.3.4 CONFIDENTIALITY

All interviewers and other staff working on the project were appointed Officers of Statistics by the Central Statistics Office. This imposed a legal obligation to maintain the confidentiality of all information they received in the course of the study. Under the Statistics Act (1993) (see Section 4.2.2 above), a breach of confidentiality is a criminal offence. At interviewer training it was emphasised that not all breaches of confidentiality may be malicious in nature. Many can arise through thoughtless or careless comments made to third parties after an interview has been completed.

Access to the non-anonymised dataset is severely restricted and great care was taken to remove any identifying information from the anonymised dataset. No Government department or agency, apart from the Central Statistics Office (CSO), has access to identifiable



information, and apart from the ESRI, the CSO is the only agency to hold a copy of the non-anonymised dataset. In addition, the following steps have been taken to ensure the confidentiality of information given as part of *Growing Up in Ireland*:

- Use of numerical codes on all electronic and paper questionnaires;
- Use of passwords and usernames on laptops;
- ‘Strip-down’ of laptops to prevent inadvertent connection to a wireless network, and hard-disk encryption of the laptops;
- Encryption of all electronic information transferred by interviewers to a dedicated secure server in the ESRI;
- Separate mailings of paper questionnaires and Work Assignment Sheets – the latter containing contact information;
- The Statistics Act (1993) ensures that the information obtained can only be used for purposes of statistical compilation and analysis.
- Respondents are only able to access the information that they themselves have provided. No individual is able to see another person’s answers, even if that person has recorded details in respect of the individual in question; for example, one parent is not able to access what the other parent has recorded in their interview, nor can they access what a child says in their interview. This particularly important point was explicitly included in the consent form signed by all families prior to their participation in the study.

When paper questionnaires are returned to the Study Team, they are marked back as returned on the database and date stamped. They are then sorted by ID number and stored in the field room, which is locked and accessible only by GUI staff, until they are data entered. Once data entered, they are moved to the store room, which is also locked and only accessible by GUI staff. All questionnaires are currently being retained but the retention policy is being reviewed in the context of the principle of data minimisation in the General Data Protection Regulation that came into effect in May 2018.

4.3.5 AVOIDANCE OF EMBARRASSMENT OR DISTRESS

Proactively avoiding the possibility of causing embarrassment or distress is intrinsically linked to the maintenance of confidentiality both within and outside the home. Within the home, sensitive questions (such as those concerning the marital/parental relationship) were self-completed by the respondents on computer rather than being asked aloud by an interviewer (unless requested). Prompt cards were also widely used in the course of the interview, especially when questions were of a sensitive nature.

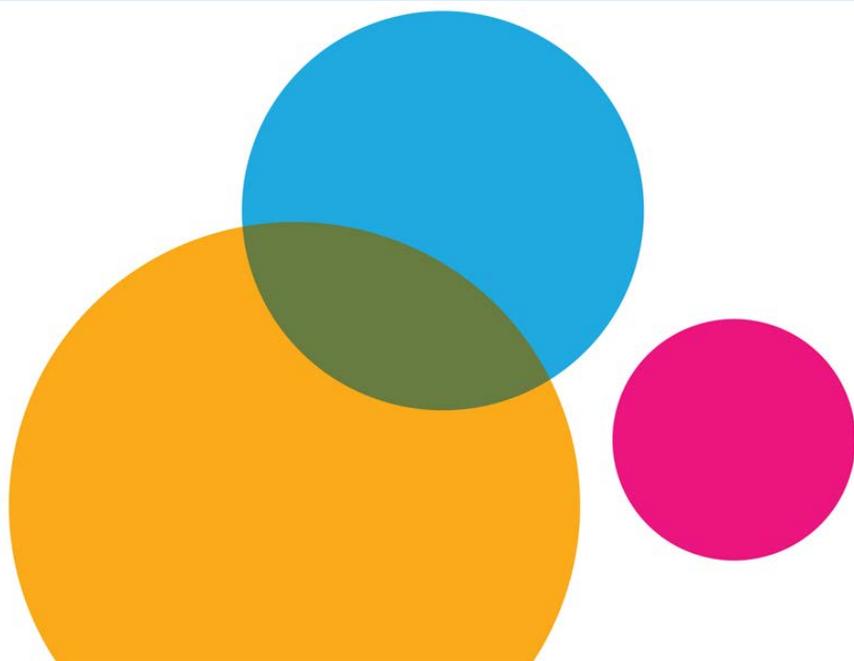


Furthermore, it was made clear to respondents at the outset that they could refuse to answer any particular questions or indeed withdraw from the interview altogether if they so wished. Interviewers were prohibited from getting involved in any family issues or giving advice, regardless of any qualifications or experience they had in such matters. Interviewers were, however, provided with a list of helpline numbers for a variety of agencies, which they could pass on to respondents if required. Every Young Person participating in the study was also provided with an information sheet with helplines in the unlikely event that they were affected by the content of the survey.



Chapter 5

OVERVIEW OF INSTRUMENTS AND PROCEDURES





5 OVERVIEW OF INSTRUMENTS AND PROCEDURES

5.1 INTRODUCTION

Similar to data collection at age 13, there were two phases to the data collection at 17/18 years: the main phase and the school-based phase. The main phase involved a home-based interview with the Young Person, Parent One and Parent Two. The school-based phase involved a questionnaire sent to the Young Person's principal about the school, its resources and policies. The school-based data were collected with a view to linking them to individual-level information to allow for analysis of school effects on the Young Person.

This chapter details the general procedures and instruments used at wave 3 of the Child Cohort. Fieldwork in the home is summarised in section 5.2; procedures for laptop administration are discussed in sections 5.3 and 5.4; administration of the cognitive tests is described in 5.5 and special procedures are described in section 5.6. Minimal details on instruments are provided in this chapter as its purpose is to provide a broad overview of the various levels of instrumentation and their administration, while details of substantive content are provided in subsequent chapters.

5.2 HOUSEHOLD-BASED FIELDWORK AND FAMILY PARTICIPATION

As at previous waves of the study, an introductory letter was sent to the family by head office a few days in advance of the interviewer's first contact with the family. The interviewer was instructed to make the first initial contact to the household in person.

The informants in the home were in all cases Parent One (formerly, the Primary Caregiver), the Young Person, and, where relevant, Parent Two (formerly, the Secondary Caregiver). Parent One was self-defined by the family as the person who provided most care to the Young Person and is most knowledgeable about his/her development, usually this is the mother of the Young Person. Parent Two was defined as the resident spouse/partner of Parent One, that person was most often, but not necessarily, the father of the Young Person. Transitions between Parent One and Parent Two from Wave 2 to Wave 3 were anticipated and this had implications for the use of forward feed data. The detailed protocol for dealing with these issues is discussed in Section 6.2.

The main interviews with Parent One and Two were administered by the interviewer using a Computer-Assisted Personal Interview (CAPI), while more sensitive questions were administered to the respondents on a Computer-Assisted Self Interview (CASI).

The interviewer training emphasised the need to establish good rapport with the respondents. Interviewers were instructed to try to gain the confidence of Parent One, as well as that of the Young Person him or herself in the first instance, and develop a rapport with them before commencing the formal interview process.



Where one of the parents was no longer in the home, contact details were sought from Parent One during the home visit. In some cases, contact details were available from previous waves of the study. A questionnaire was then sent by post to the non-resident parent for self-completion.

The following is a list of all instruments administered in the home and the main domains therein:

1. *Parent One Main Questionnaire – Household composition; Parental health; Young Person's health; Family context; Young Person's emotional health and well-being; Socio-demographics; Background characteristics; Household income; Neighbourhood characteristics, Intergenerational characteristics.
2. *Parent One Self-Complete Questionnaire – Reasons for change in the household grid; Relationship to Young Person; Marital status; Parental efficacy; Alcohol, smoking and drug use; Depression; Contact with criminal justice system; Information on non-resident parent (if relevant).
3. Parent Two Main Questionnaire – Parent's health; Family context; Young Person's emotional health and well-being; Socio-demographics; Background characteristics; Intergenerational characteristics.
4. *Parent Two Self-Complete Questionnaire – Relationship to Young Person; Marital status; Parental efficacy; Alcohol, smoking and drug use; Depression; Contact with criminal justice system; Information on non-resident parent (if relevant).
5. *Young Person Main Questionnaire – Second-level education; Career and attitudes to further education; Involvement in post-education and training; Parental engagement in education; Attitudes to work; Work history; Leisure activities; Citizenship, Identity and civic participation; Neighbourhood; Diet, exercise and sleep; Dental health.
6. *Young Person Self-Complete Questionnaire – Peer relationships; Smoking, drugs and alcohol use; Relationships and sexuality education; Pubertal development, Intimate relationships and sexual intercourse; Physical health; Family relationships; Mental health and self-harm; Bullying; Delinquent behaviour; Leisure and internet use.
7. *Young Person Cognitive Tests – Semantic fluency test, Vocabulary test and Financial literacy/numeracy test.
8. *One-Day Time-Use Diary – Time-use information on what the 17/18 year old did for 24 hours on a nominated day.



9. Questionnaire Modules for Twins and Triplets – subset of questions used where a twin or triplet was present.
10. *Follow-Up Information – Tracing information should the respondent move home between waves.
11. *Height, Weight and Blood Pressure of the Young Person
12. *The Work Assignment Sheet
13. *Non-Resident Parent Questionnaire – Details on time spent with the Young Person; Financial contributions provided to the Young Person/Young Person's mother/father; Past and current relationship with the Young Person's mother/father; Involvement in decisions regarding the Young Person; Socio-demographic characteristics.

*These core items were completed for all households.

^x Item 13 was issued by the Study Team on a postal basis and self-completed by Non-Resident Parent where relevant.

Detailed descriptions of all instruments are provided in the following chapters:

- Chapter 6 – Parent/guardian questionnaires
- Chapter 7 – Young Person questionnaires
- Chapter 8 – Cognitive tests
- Chapter 9 – Other instruments and measures

5.3 CAPI PROCEDURE

At this wave, two types of laptop were used: the IBM ThinkPad Lenovo X60 and the Dell Latitude 13. One of the laptops was used for the Young Person interview and the other was used for both adult interviews. Interviewers administered the main questionnaire to the Young Person and Parent One and Two. Each question appeared on the computer screen for the interviewer to read out, with space for an answer option to be recorded. Answers were principally recorded by entering the number associated with the selected answer option e.g. 1 – Excellent, 2 – Very Good. Questions were programmed using the Blaise software. This program facilitated the routing of questions (e.g. skipping non-applicable questions) and the inclusion of hard and soft cross-variable and range checks to alert interviews to improbable or impossible answers.

Respondents were given an extensive range of prompt cards with the available answer categories. These were particularly important for longer lists of options or items in a scale, or



when questions were of a sensitive nature. Interviews could be suspended and returned to at a later time according to the requirements of the respondents; for example, if an unexpected visitor called to the house during an interview. Completed interviews were outputted as ASCII files from Blaise, and were encrypted and uploaded to a dedicated server in the ESRI by the interviewer across the phone line. They were then decrypted and rebuilt to produce an SPSS file for preliminary analysis of the data. As well as encryption of the data in transfer, all the laptops were protected with 256-bit encryption.

5.4 CASI PROCEDURE

At wave 3, all sensitive questionnaires were self-completed by the participant on CASI. The interviewer demonstrated to the participant how to answer the different styles of questions and provided them with a card detailing how to skip a question with “don’t know” or “refusal”. Respondents then took control of the laptop, read the questions on screen and inputted their own answers, thus maintaining the confidentiality of the data. Once Parent One and Two’s self-completion questionnaire was finished, it was ‘locked down’ so that it could not be accessed by anyone other than the Study Team in Head Office. As the 17/18 year olds’ self-complete questionnaire was longer, it was ‘locked down’ after every section. Once the self-complete questionnaire had been locked down, the interviewer did not have access to the completed sensitive sections of the questionnaire. The interviewer remained available at all times throughout the survey to give instructions and assistance.

5.5 COGNITIVE TESTS

Three types of cognitive tests were administered to the Young Person in the household. The semantic fluency test (animal naming task) was a minute-long task where the Young Person was asked to name as many animals as they could think of. The Young Person simply named the animals and the interviewer recorded the responses on a Dictaphone and on paper. The vocabulary test and the financial/numeracy questions were self-completed by the Young Person on paper. These tests are discussed in more detail in chapter 8.

5.6 SPECIAL PROCEDURES

Growing Up in Ireland always aims to be as inclusive as possible. Putting special procedures in place to achieve high level of inclusion is important to accomplish the study objectives relating to the description of the lives of Irish children and young people, mapping variation in young people’s lives and providing an evidence base for the creation of policies and services.

Every effort was made to accommodate people who required special assistance and this was reviewed on a case-by-case basis. For example, individuals with vision problems completed the main and self-complete questionnaire on a CAPI basis. However, the decision of whether the Young Person was to be included in the study and the extent of their involvement ultimately rested with the Young Person’s parent/guardian.



5.6.1 OTHER LANGUAGES

Where the respondents could not communicate through English or Irish, information sheets and questionnaires were pre-translated into Lithuanian, Chinese, and Polish. These were self-completed by participants on paper during the interviewer's home visit. By wave 3, translated questionnaires were requested by only a very small number (less than 10) of the participants.

5.6.2 TWINS AND TRIPLETS

In households where there were 17-year-old twins and triplets,⁷ the adult respondents completed a Parent One and Two main interview on CAPI and answered the Young Person related questions in respect of one of the twins. They then completed a twin module on CAPI for the second Young Person; in the case of triplets, a module was also completed on the third Young Person. The latter modules repeated only the child-related questions, this time to be answered in relation to the second twin or triplet.

5.7 GIFTS TO RESPONDENTS

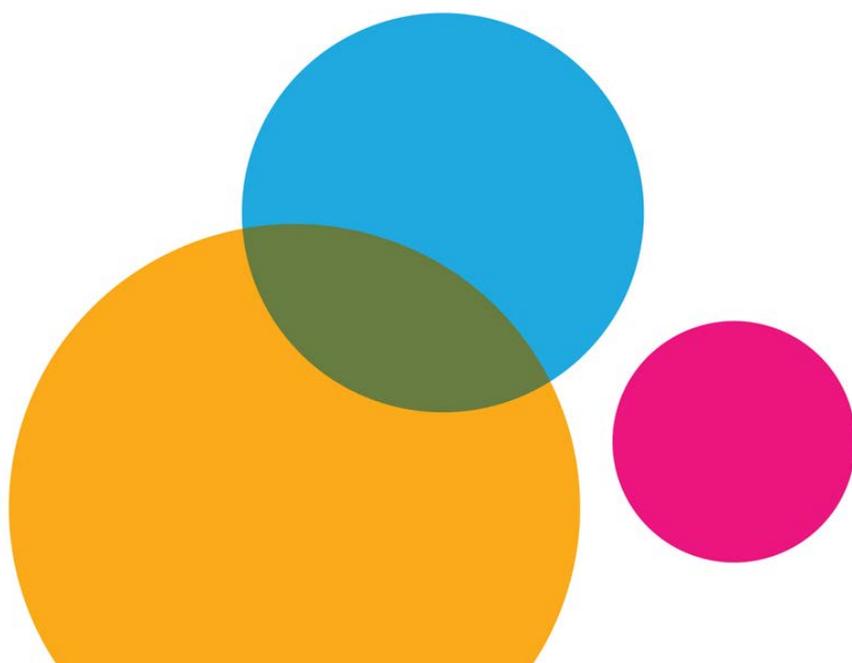
Small gifts were given as tokens of appreciation for participation in *Growing Up in Ireland*. For the Young Person, a souvenir pen was provided as a gift. Gifts were mentioned and offered only after the interview had been completed.

⁷ Three per cent of young people in Wave 3 were non-singletons.



Chapter 6

PARENT ONE AND PARENT TWO INSTRUMENTS





6 PARENT ONE AND PARENT TWO INSTRUMENTS

6.1 INTRODUCTION

The home-based component of the study involved personally administered interviews with Parent One, Parent Two (if relevant) and the Young Person him/herself. Further information was also sought on contact details for a non-resident parent, if appropriate. In this chapter, the Parent One Questionnaire will be discussed in detail. As the Parent Two Questionnaire is a condensed version of the Parent One instrument, the Parent Two Questionnaire will only be discussed in brief. The Main Questionnaire was completed using CAPI for both respondents, while the Sensitive Questionnaire was self-completed on a CASI basis.

The Parent One Questionnaire consists of nine sections, each of which broadly equates to a domain of interest. Each section was further decomposed into general areas of interest based on groups of questions (described below).

The inclusion of items for both parents and young people was based on the key domains identified in the literature as influencing young people's outcomes, input from advisors, stakeholders and young people, and the results of the pilot study carried out prior to the main fieldwork (see Williams et al., forthcoming). The study team took account of many other factors when deciding to include or exclude a measure, including psychometric properties, age appropriateness, usefulness in measuring change and stability in a longitudinal context, and policy relevance. In developing the research instruments, there were trade-offs between having an interview which was unreasonably long and the amount of information to be gathered. Furthermore, the need to have balance across the four key domains of young people's lives restricted the extent to which very specific questions could be asked in one domain.

The more detailed rationale for including each of the items comprising the various modules of the Parent One Questionnaire is discussed below. Information on scales used in the interview is also included here, along with relevant psychometric information. The Parent One and Two Main and Self-Complete questionnaires are provided in Appendix 1 and 2.

6.2 YOUNG PERSON'S ADDRESS & HOUSEHOLD COMPOSITION

XA1-XA3: Young Person's current address

Question XA1 asked Parent One if the parental home was still the Young Person's main address. If the Young Person had moved address but was still living in Ireland, their new address was recorded (XA2-XA3).



XA4-XA6: Young Person's temporary address

If the Young Person had another part-time address (e.g. student or work address), their living situation in the temporary address was recorded as well as how many nights per week they stayed in the parental home.

ZA1a-ZA1c, ZA7a-ZA8a: Household relationship grid

ZA1a-ZA1c recorded personal details in respect of each person resident in the household. The information gathered included the name of any residents, their sex, date of birth, economic status, relationship to Parent One, and relationship to the Young Person. These variables are important for examining family structural and relationship issues that affect the Young Person (e.g. lone versus dual parent status).

This section was previously completed by Parent One at wave 2; therefore, to save time, the information captured at wave 2 was fed forward into the questionnaire. Parent One was asked to review the information collected in the previous wave relating to the composition of the household and update any changes or correct any inaccuracies. However, to ensure the confidentiality of the information collected at wave 2, if Parent One who completed the grid at wave 2 was not available to complete the household grid on this occasion, the person who identified themselves as the Young Person's legal parent or guardian was asked to complete a new household grid (ZA7a-ZA8a).

ZA3a-ZA3b: New entrants to the household

Any new entrants to the household (e.g. births) or any person inadvertently omitted from the household grid at wave 2 could be added at question ZA3a. Information gathered included the name, gender, date of birth, economic status and relationship to Parent One and the Young Person of each new entrant. The date they joined the household was also collected.

ZA4: Number of people living in the household at Wave 3

The total number of people in the household was calculated by subtracting any departures from the household, and adding in any new entrants, from the number of residents in the household at wave 2. Parent One was then asked to verify that the number of people now regarded as residents was correct.

ZA5-ZA6b: Identity of Parent One at Wave 3

Question ZA5 asked the respondent who identified themselves as Parent One at wave 2, if they still regarded themselves as the Parent One at wave 3. Parent One was self-defined by the family as the person who provided the most care to the Young Person and who was most knowledgeable about him/her. Parent Two was the resident spouse/partner of Parent One.

If Parent One at wave 2 was no longer Parent One at Wave 3, question ZA6a asked why they were no longer Parent One. Question ZA6b established if the resident spouse/partner of



Parent One should be interviewed as the main parental respondent (Parent One) on this occasion. This transition meant that Parent One at wave 2 would now complete the Parent Two at wave 3. Other scenarios would include cases where a new Parent Two had moved into the household, or where one or other parent had left the household.

ZA9a-ZA9c: Other biological children living outside the household

Question ZA9a sought to establish whether the Young Person had any other full, half, step or adoptive brothers or sisters living outside of the household. If so, the respondent was asked to provide the sibling's sex, date of birth and relationship to the Young Person. These questions were asked to establish the birth order of the Young Person and to ascertain a more accurate picture of family size in Ireland.

6.3 PARENT ONE QUESTIONNAIRE

6.3.1 SECTION A: PARENT'S HEALTH

This section focused on the Parent One's health, chronic illness/disability, physical activity and medical insurance.

A1: General health status

This item was taken from the Short Form Health Survey (SF-36, a 36-item survey that measures perceived physical and emotional health status). The item used in *Growing Up in Ireland* serves as an outcome measure of general health status. Respondents were asked 'in general, how would you say your current health is?', with responses indicated on a five-point Likert scale ranging from "excellent" to "poor". This question was included at wave 1 and 2 of *Growing Up in Ireland* and is commonly used in health economics. The data will allow researchers to explore the relationship between (changes in) parental health status and outcomes for the young person, including those pertaining to health, education and socio-emotional development.

A2-A6: Chronic physical or mental health problems, illness or disability

Parental chronic illness has been found to have a significant impact on child functioning, particularly as the child progresses through adolescence (Stoeckel, Weissbrod & Ahrens, 2015). Compared with younger children, adolescents have a better understanding of illness and its implications, an understanding which can result in greater psychological distress (Compas et al, 1994). Furthermore, adolescents may have to assume additional responsibilities within the family as a result of their parent's illness and this care load may impact on the development of peer networks and on their broader socio-emotional development (Stoeckel et al, 2015; Pedersen & Revenson, 2005). However, the extent to which the experience of parental illness affects child/adolescent outcomes remains an under-researched phenomenon in contrast to the extensive literature that addresses families' adjustment to child illness (Pedersen & Revenson, 2005).



Question A2-A6, derived from the European Community Household Panel (ECHP/ Living in Ireland survey 1994-2001), explored the nature, duration, diagnosis and impact of illness/disability on the parent.

A7: Parental physical activity

Question A7 asked the parent's perception of whether they are very, fairly, not very, or not at all physically active. Physical activity has numerous positive health outcomes. Researchers have found that parental physical activity levels have a positive impact on their child's level of activity by acting as a role model and encouraging exercise (Welk, Wood & Morss, 2003).

A8-A9: Perceptions of own weight and dieting behaviour

As with both previous waves of *Growing Up in Ireland*, Parent One was asked about his/her perception of their own weight on a seven-point scale from very underweight to very overweight (Question A8). Researchers have demonstrated the utility of this type of question for assessing the extent of agreement between perceptions of weight status and objectively measured BMI status (Craig & Adams, 2009), the apparent inter-generational transmission of eating attitudes and behaviour between parents and their college-aged children (Baker et al., 2000). This is of policy relevance given the potential for parental overweight to be associated with higher BMI among children (Costa-Font and Gil, 2013; Baker et al. 2005). As with wave 1 and 2, Parent One was also asked about frequency of trying to lose weight through dieting. This is important from a longitudinal perspective in attempting to understand the precursors of eating disorders. For example, research has found that parental modelling of concerns about weight and dieting behaviour may be a risk factor for disordered eating in adolescence (Neumark-Sztainer et al, 2010).

A10-A15 Healthcare insurance

In general, most adolescents are relatively healthy; however, they do have specific health care needs and may require access to particular health services at this stage in the life course, including mental health services, support around substance use, and reproductive health (Klein & Wilson, 2002). International research has pointed to lower levels of health care utilisation among adolescents because of financial barriers (Eisenberg, Golberstein & Gollust, 2007); however, there is little data available in an Irish context. Information on adolescent access to medical care is of major policy concern as delays in seeking medical care are associated with more illness-related complications (Kraft et al, 2009).

Questions A10-A15 recorded information in respect of Parent One and the Young Person's medical insurance cover, including the provision of private healthcare insurance. Adapted from the Living in Ireland Survey, these questions will provide explanatory power in the analysis of variation in access to and use of health services, as well as variation in health status.



6.3.2 SECTION B: YOUNG PERSON'S HEALTH AND ILLNESS

Section B focused on the Parent One's knowledge of the Young Person's physical health, long-lasting conditions or difficulties, access to healthcare, and adequacy of supports etc.

B1 General health status

Many national health surveys use a general health-related quality of life measure because it is quick to administer and has been found to provide valid and reliable indicators of other objectively obtained measures of health status (Bowling, 2005).

Question B1 is a single item measure of the Young Person's health and has been previously used in *Growing Up in Ireland* at 9 and 13 years of age. Responses to health status were indicated on a four-point scale, ranging from very healthy to almost always unwell. There is good evidence, summarised in Blaxter (1989), that such measures are close analogues of clinically assessed health status. Moreover, Haas (2007) has demonstrated the predictive validity of this type of question as a good longitudinal indicator of adult health outcomes. Compared with 'excellent', 'very good', or 'good', 'poor' childhood/adolescent health was associated with a threefold increase in risk of poor adult self-rated health and a two-fold increase in risk of a work-limiting disability or chronic health condition, independent of childhood and current socio-economic and health risk behaviours.

B2-B5 Long-lasting conditions or difficulties

Chronic illness and disabilities affect adolescents through the limitation they impose on daily life. Young people with long-lasting illnesses and disabilities have a greater vulnerability to psychosocial problems during childhood and throughout adolescence (Secinti et al, 2017). Previous research in Ireland has also found that people with long-lasting illnesses or disabilities fare much worse across a number of outcomes relative to others in their age group, including lower levels of educational attainment and labour market participation, increased risk of poverty, fewer social supports and lower rates of social participation (Gannon & Nolan, 2005).

Question B2 to B5 contained a list of seven types of longstanding illnesses and disabilities the Young Person could have. Parent One was asked to specify whether the Young Person had the condition, since when they have had it, if they are hampered by the condition and if the condition has been diagnosed by a professional.

B6-B7: Healthcare access

This question was adapted from the Quarterly Household Survey (2007). As at the two previous waves of *Growing Up in Ireland*, Parent One was asked whether the Young Person had required medical treatment in the preceding 12 months. If the Young Person needed to attend a GP or Specialist but did not, Parent One was presented with further questions about perceived barriers to access. The latter is important from a public policy and planning



perspective, particularly where socio-economic factors or the attitudes of young people cause a delay in seeking or receiving healthcare (Kraft et al, 2009).

B8-B9: Dental health

Question B8-B9 asked Parent One how many teeth the Young Person has had filled and extracted. This information was collected from parents as the pilot work for this phase suggested they are more likely to recall the Young Person's dental work. Details on the oral health of young people can be found in section 7.2.14.

6.3.3 SECTION C: FAMILY CONTEXT

This section recorded details regarding discussions that the Parent/Guardian has had with the Young Person on their plans for the future, and the parent's own aspirations for the Young Person. This section also recorded details about the extent to which the Parent/Guardian monitored the Young Person's behaviour and the degree to which the Young Person shared information with their Parent/Guardian.

C1: Young Person's current education status

Question C1 recorded the Young Person's education status.

C2- C3: Parental involvement in education

Parental involvement in, and expectations for, their children's education are positively related to the young person's own academic achievement and college aspirations. Educational outcomes are enhanced by parents encouraging their child to study and offering guidance on educational decisions (Carter & Wojtkiewicz, 2000). Parental involvement differs significantly by a number of background factors, particularly by social class (Rowan-Kenyon, Bell & Perna, 2008). Furthermore, parents from professional backgrounds report higher expectations for their children with regard to their level of educational attainment in comparison to parents from working-class backgrounds (Schoon, 2010).

If Parent One specified that the Young Person was still in education or had completed education in the last six months, they were presented with six statements about their involvement in the Young Person's education (Question C2). Each item was rated on a five point scale from "never or hardly ever" to "several times a week". Similar questions were also asked of the Young Person (see below) in order to triangulate the information collected. Question C3 asked Parent One how far they expected the Young Person to progress in the education/training system, a question that was also asked in waves one and two.

C4 & C5: Parental monitoring and disclosure

Monitoring of both child and adolescent behaviour is considered an essential component of parenting. Parental monitoring refers to parenting behaviours such as paying attention to, and tracking, their child's whereabouts and activities (Dishion & McMahon, 1998). While parental



monitoring may not seem as essential as a child progresses into adolescence, it is still important for parents to have some level of authority over their adolescent. Many studies have shown that well-monitored youths perform better academically, have higher self-esteem and are less likely to engage in delinquency or substance use (Hill & Tyson, 2009; Parker & Benson, 2004).

Evidence suggests that adolescent disclosure, that is, the communication of information about their activities, may be a stronger predictor of both parental knowledge and adolescent adjustment than parents' active efforts in monitoring their children (Kerr & Stattin, 2000; Stattin & Kerr, 2000). This pattern applies to both internalising problems, such as low self-esteem and depressed mood, and to externalising problems, such as delinquency. However, this relationship is not straightforward since adolescent disclosure will also be shaped by factors such as parenting style and the closeness of the parent-child relationship, factors which will themselves influence the prevalence of socio-emotional difficulties.

Measure

Stattin & Kerr (2000) devised four subscales: Parental Monitoring, Parental Supervision, Parental Control and Youth Disclosure. Three of the four subscales were used in the current wave of the study. Since the authors had found that supervision/solicitation had a weaker relationship with parental knowledge, especially when it was explored in the context of youth disclosure and parental control, it was decided not to include the scale at this time. The Parental Monitoring and Youth Disclosure sub-scales were used in the both Parent One and Parent Two Questionnaires and the Control Subscale was included in the Young Person Main Questionnaire. The Parental Control subscale contained 9 items while the Youth Disclosure subscale contained 6 items. The items in each subscale were rated on a five point Likert scale ranging from almost never or never to almost always or always. Higher scores on each subscale indicate higher levels of monitoring and disclosure. This scale was included at age 13 years of *Growing Up in Ireland* so changes in the nature of monitoring and disclosure as the Young Person matures can be explored. The Control subscale will be discussed in more detail in the section on the Young Person Self-Complete Questionnaire (section 7.3).

Psychometric Properties

Kerr, Stattin & Burk (2010) reported reliabilities for a sample of 713 15-17 year olds and 850 of their parents who completed the scale. The authors found satisfactory levels of internal consistency for the two subscales: Monitoring ($\alpha = .69$) and Youth disclosure ($\alpha = .85$). The alpha value at age 17/18 of *Growing Up in Ireland* was: Monitoring ($\alpha = .76$) and Youth disclosure ($\alpha = .72$). Findings from the *Growing Up in Ireland* pilot study (Williams et al., forthcoming) replicated the gender differences found by Kerr et al. (2010) and monitoring and control levels had the expected association with delinquent behaviour.



Stattin & Kerr (2000) have previously pointed out that mothers and fathers can have different levels of knowledge under certain conditions; however, this has not yet been empirically tested because the authors did not have the data to compare mothers and fathers in the same family, an issue that can be addressed in *Growing Up in Ireland*.

C6 : Immediate concerns for the Young Person

Late adolescence can be a worrying time for parents as they have to take a step back in the Young Person's life, and allow them to make their own decisions.

Question C6 asked the parent to answer yes or no to a series of statements regarding concerns or worries they might have about the Young Person, for example, "he/she may not do well in education"; "he/she has or will develop a drug problem" etc.

The pilot study had also included questions on family activities undertaken together. However, analyses of the findings indicated that they were too oriented towards younger children and so were not included in the main study. Instead, a new question was asked in the Supplementary Questionnaires of both parents and the Young Person on how well they got on as a family unit.

6.3.4 SECTION D: YOUNG PERSON'S EMOTIONAL HEALTH AND WELL-BEING

This section looks at the Young Person's emotional health from the Parent's perspective, and also any disabilities that the Young Person has and the supports that they receive.

D1: Young Person's behaviour

The Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997) is a brief (25-item) measure of prosocial behaviour and psychopathology among children aged 3 to 16 years that can be completed by parents, teachers, or children themselves. While the upper age limit for the scale recommended by the authors is 16, the scale has shown to be a valid measure of psychological adjustment up to 19 years of age (Van Roy, Veenstra & Clench-AAS, 2008).

The instrument produces scores for five sub-scales: Emotional Symptoms, Conduct Problems, Hyperactivity/Inattention, Peer Problems and Prosocial Behaviour. Each sub-scale comprises of five items. Respondents are required to rate their level of agreement with each item on a three-point scale indicating whether the item is not true, somewhat true or certainly true. A Total Difficulties score is obtained by summing scores across the Emotional Symptoms, Conduct Problems, Hyperactivity/Inattention and Peer Problems scales. Subscale scores range from 0-10 and the Total Difficulties score ranges from 0-40. Higher scores on the problem behaviour-oriented scales are indicative of more difficulties. SDQ scores above the 90th percentile predict a substantially raised probability of being diagnosed with a psychiatric disorder (Goodman, 2001).



This measure has been used at 9 years and at 13 years; therefore, strengths and difficulties can be explored both cross-sectionally and also longitudinally. This allows an analysis of the extent to which family, peer and school experiences can help reduce or exacerbate socio-emotional difficulties over time and how these in turn might relate to other outcomes, such as anti-social behaviour or depression.

Psychometric Information

Van Roy, Veenstra & Clench-AAS (2008) found that the scale had good internal reliability with a similar aged sample (16-19 years) to **Growing Up in Ireland**: Total Difficulties $\alpha = .80$ (Subscales: Emotional symptoms $\alpha = .70$, Conduct Problems $\alpha = .54$, Hyperactivity $\alpha = .66$, Peer Problems $\alpha = .60$ and Prosocial Behaviour $\alpha = .64$). The **Growing Up in Ireland** pilot study indicated fairly high levels of consistency in SDQ scores since 13 years of age and higher scores were found to be associated with greater levels of problem drinking, peer alienation and internet addiction. The Cronbach Alpha at age 17/18 years in the **Growing Up in Ireland** main study was Total Difficulties $\alpha = .70$ (Subscales: Emotional Symptoms $\alpha = .73$, Conduct Problems $\alpha = .53$, Hyperactivity $\alpha = .73$, Peer Problems $\alpha = .49$ and Prosocial Behaviour $\alpha = .70$).

D2: Young Person's personality

The Ten Item Personality scale was used to measure the Young Person's personality from both the Young Person and their parent's perspective. The TIPI scale was previously used with this cohort at age 13 years and so provides longitudinal continuity in a most important measure of the Young Person's development. The Young Person's personality was measured from the parent's perspective to obtain an external measure of their personality. This approach allows for an analysis of the extent of match or mismatch between young person's self-perception and parental perspectives as young people become more independent. More details on the scale and psychometric information can be found in the Young Person Main Questionnaire (see section 7.2.7) (Gosling et al, 2010).

D3-D7: Physical and mental conditions or disabilities of the Young Person

Just under 10% of the Irish population aged 15-19 years had some form of disability according to the most recent census in 2016 (Central Statistics Office, 2017). While supports for young people with disabilities have improved, individuals with disabilities still remain under-represented in the work force and in higher education (Shevlin, Kenny & McNeela, 2004). Information collected from **Growing Up in Ireland** can help to identify where disability supports are lacking, and can help to inform policy on the supports needed for individuals with disabilities in education and other aspects of life.

Question D3 asked whether the Young Person suffers from any specific conditions or disabilities that affect their learning, including physical conditions, learning disabilities (e.g. dyslexia, dyscalculia, dyspraxia), emotional and behavioural disorders (e.g. ADHD, ADD etc.),



assessed syndromes (e.g. Down Syndrome) and speech or language difficulties, among other conditions. Question D4-D6 asked about the diagnosis of the condition, age of the Young Person at first diagnosis, and prescription of medication. Questions on specific conditions and diagnoses were also asked at age 9 and 13 and can be used to indicate the stability of the condition, identify new cases, or perhaps those who no longer had the condition. Coupled with information collected at this wave and previously on the supports received, this information will allow an analysis of the extent to which some conditions are ameliorated by specific interventions and whether conditions (e.g. socio-emotional difficulties) can emerge in response to adverse experiences.

Question D7, taken from the Leaving School in Ireland Study, asked about supports received by the Young Person inside and outside of school such as Special Needs Assistance, Resource Teaching, Psychologist, Speech and Language Therapist, Occupational Therapist, Physiotherapist and so on.

6.3.5 SECTION E: PARENT'S SOCIO-DEMOGRAPHICS

E1- E3: Nature of accommodation and status of tenure

These questions recorded whether the household was owner-occupied, rented etc. Tenure status has been very widely used in ESRI surveys over several decades and has been linked to measures of wellbeing, independent of co-variates. This question was also asked at 9 and 13 years and will highlight stability or change in the nature of tenure status for families over time, especially with the current housing shortage and rental crisis, and what effect these may have on the Young Person.

Questions E1-E3 captured basic descriptive information relating to tenure status and if the accommodation was suitable for the family's needs.

E4-E22: Principal economic status and related variables

As at age 9 and 13 years, and depending on whether or not they were currently working (either as an employee, self-employed or farmer) outside the home, the respondent provided information on current or historic occupation and supervisory or managerial functions in the workplace. This information was recorded to allow a social-class classification to be assigned to each household. This section also recorded details on number of hours worked outside the home.

E23: Reason for not working a paid job outside the home

This question was asked of those who did not work outside the home. A choice of nine options was provided, including cannot find a job, and prefer to look after children myself.



E24-E25: Occupation of spouse or partner

This question was principally asked in the main interview so that the information was available to the Study Team should the spouse or partner not be available to complete the Parent Two interview.

E26: Work-life balance

Rather than focus on the fact that parents are in paid employment, researchers have begun to focus instead on how they work (Galinsky, 1999), with the issue of work-life balance of increasing interest to researchers, given the greater work demands placed on individuals and the increasing number of women participating in the labour force. More recent focus has turned to the actual quality of the work experience for parents; the bidirectional influence between this and family life can also be explored in the context of parental working patterns.

Question E26 related to work-life balance and asked Parent One to rate the extent to which they agreed with a number of statements on the impact of work on family life and in turn, the impact of family life on work. This question has been asked at previous waves of the study.

6.3.6 SECTION F: PARENT'S BACKGROUND CHARACTERISTICS

Questions in this section focused on parental education, language spoken in the home, religion, and citizenship. Most questions in this section will only be asked of new respondents in the study.

F1- F7: Highest level of education attainment

Parental education level is an important resource shaping children's outcomes (Davis-Kean, 2005). The effect of maternal education on adolescent development has been found across a number of domains. In Ireland, as internationally, young people from more highly educated families have higher levels of academic achievement; thus, those whose mothers have been educated to university level perform better in the Leaving Certificate in comparison to those whose mothers have been educated to primary school level (Smyth et al, 2011). In addition, parental education may also influence adolescent outcomes through its effects on parenting beliefs and behaviours (c.f. Davis-Kean, 2005). Furthermore, lower maternal education has been associated with the prevalence of adolescent anti-social behaviour, including drug use (Miech & Chilcoat, 2005).

Question F1 was forward fed from age 13 years and asked Parent One to confirm their level of education to date. If the respondent's level of education had changed since last interview or was not recorded at previous waves of the study, they were then asked their highest level of education attainment to date, in what year they got the qualification and the name of the qualification (F2-F6). Question F7 recorded the age that Parent One left full-time education for the first time.



On the suggestion of the international advisers, questions on parental literacy and numeracy used in earlier waves were dropped as they were unlikely to change very much across waves of the study and are also less relevant to this age group.

F8: Main language of the family

Question F8 asked Parent One what language is spoken most often in the home, with the answer options of English, Irish and Other.

F9&F10: Religion

These questions collected information on the religious denomination of Parent One. Such questions should provide important demographic information in an increasingly secular society. They are also important in terms of understanding differences between young people who are given some form of religious upbringing and those who are not.

F11: Spirituality

There is no clear-cut definition of spirituality; rather spirituality is a construct individuals define for themselves based on their search for meaning and purpose in their life. Spirituality, given its role in meaning making and optimism for the future, can play an important role in adolescent and adult psychological well-being (Mahoney & Cano, 2014). Parents are influential figures in supporting and engaging their adolescent in practices to nurture their spiritual development (Kim & Esquivel, 2011).

Question F11 asked Parent One if they would describe themselves as a spiritual person from not at all to extremely.

F12-F16: Citizenship and length of time resident in Ireland

As at age 9 and 13, information was recorded on Parent One's citizenship, country of birth and duration of residency in Ireland. This information was only collected from those identified as non-Irish citizens at previous waves. For all other respondents, this information was fed forward from previous waves.

F17: Ethnicity

Information about ethnicity has substantive analytical benefit and is also used as an input to the reweighting of the data, in accordance with patterns identified in the most recent Irish Census of Population. This question was also asked of Parent Two and in Non-Resident Parent questionnaires so that self-identified ethnicity for both parents was recorded. Information about ethnicity can yield valuable insights into potential differences in young people's experiences and outcomes, given evidence of greater risk of discrimination among adults of certain ethnic backgrounds in Ireland (see Russell, Quinn & McGinnity, 2008). Collecting information on language spoken, citizenship and ethnicity allows for analysis which disentangles the different dimensions shaping young people's developmental outcomes.



6.3.7 SECTION G: HOUSEHOLD INCOME

As in previous waves of the study, Parent One was asked about the sources and amount of household income, social welfare dependency, difficulty making ends meet, experience of deprivation, as well as financial support they may be providing to the Young Person/or receiving from the Young Person.

G1-G5: Household income

These questions addressed issues related to household income. G1 and G2 recorded the main source of income received by the household. G3-G5 recorded details on the level of household income. The concept used is total household income from all sources and all household members, net of the statutory deductions of income tax and social insurance contributions (PRSI). This is a measure of the household's total disposable income. G3 offered the respondent the opportunity to record an exact figure per week/month/year. If this was not known or not forthcoming, G4 and G5 were then used to record the information using a series of rolling categories. The respondent was first asked to select which of the 10 categories his/her household fell into. This category was subsequently broken into sub-categories in an attempt to record the information on the most disaggregated basis possible. These income questions were used in the Living in Ireland survey, the Irish component of the European Community Household Panel survey (ECHP), which formed the basis for numerous publications on income distribution, poverty and deprivation in Ireland (see for example Whelan et al, 2003). These questions were also asked at age 9 and age 13, allowing analysis of change or stability in income in the wake of the recession and how this related to outcomes for the Young Person.

G6 – G11: Receipt of social welfare payments in the household

All welfare schemes were listed and the household's estimate of its social welfare dependency was recorded. This was included as a cross-check on the welfare dependency level, which can be derived from the household income and receipt of welfare payments under various schemes. The details on social welfare receipts and dependency are interesting from a longitudinal as well as a cross-sectional perspective. Longitudinally, they will enable analysis of welfare receipt and transitions over time and their impact on the Young Person's development.

G12 & G14-16: Basic Deprivation Scale

A substantial amount of research into poverty and deprivation, as well as their influence on outcomes across a very wide range of substantive research areas, has been undertaken in Ireland in recent years (for an overview see, for example, Whelan et al, 2007). Fundamental to much of this work has been the development and implementation of a Basic Deprivation scale.



The Basic Deprivation scale (developed by the Economic and Social Research Institute, ESRI) is made up of 11 items relating to the lack of items such as food, clothing, furniture, debt and minimal participation in social life. The index can be used on its own as a measure of nonmonetary deprivation. It has also been widely combined with thresholds of relative income poverty to provide a measure of 'consistent' poverty status and changes therein over time. Using it in this way allows one to obtain a comprehensive picture of the household's command over financial and other resources.

The Basic Deprivation scale has been extremely important in framing Ireland's National Anti-Poverty Strategy as well as in monitoring progress towards achieving national targets. Item loadings on the Basic Deprivation dimension ranged from 0.55 for going without heating to 0.71 for being able to afford new clothes and eating a roast joint or equivalent (Whelan, Maître & Nolan, 2007). Convergent validity was also excellent, with the scale exhibiting high correlations with other measures, including the ECHP eight-item Basic Deprivation index.

G13: Degree of ease or difficulty in making ends meet

Question G13 recorded the degree of ease or difficulty which the household has in making ends meet.

G17&18: Car ownership

Question G17 & G18 asked Parent One if the family has a car and if not was it because they could not afford one.

Question G13 and G17-G18 provide further information on the economic circumstances of the household.

G19- G22: Financial circumstances

When the family was first interviewed in 2007 through early 2008, it was at the height of the boom. When the family was interviewed again in 2013, there was an unprecedented bust, with unemployment increasing from 6.6 per cent in September 2008 to 14.4 per cent in August 2011. A large proportion of workers suffered pay-related deductions or cuts, and Government initiatives to address the structural deficit resulted in reductions in social welfare payments and Child Benefit. However, the economy in Ireland has started to recover and family's economic circumstances are improving. Unemployment has since fallen back to its pre-recession rates of 5.9% in April 2018 (Eurostat, 2018).

Question G19 records details on whether or not the family circumstances had changed since the time of last interview at age 13. Questions G21 & G22 asked if Parent One was currently having any difficulty repaying a loan or debt and what kind of loan/debt they were having difficult repaying.



G23-G27: Financial support provided to the Young Person

A number of commentators have pointed to a delay in young people achieving financial independence, reflecting, in part, longer periods in education and more precarious conditions on labour market entry. Thus, parental financial support has been found to persist into early adulthood (Johnson, 2013). However, adolescents who become financially independent or even support their parents financially have been found to mature more quickly than their peers (Furstenberg et al, 2003). *Growing Up in Ireland* data can provide a picture of the financial situation of young people and the extent of transfer of resources from their parents in Ireland.

Question G23-G25 asked Parent One to specify what financial supports they provide directly or indirectly to the Young Person. Question G26 asked Parent One, if they specified that they give money to the Young Person, how often they give them money and how much they give them in an average month. Question G27 asked if Parent One receives any payments from the Young Person.

6.3.8 SECTION H: NEIGHBOURHOOD/ COMMUNITY INVOLVEMENT

H1: Length of time living in local area

This question, also used at 9 and 13 years, asked how long the respondent had lived in their local area. This may give some indication of stability and possible ties to the community.

H2: Intention to continue living in Ireland

This question asked whether the respondent intended to continue living in Ireland. The information will also be used for sample retention and tracing purposes.

H3-H4: Satisfaction with perception of the local area/neighbourhood

The areas in which people live have been found to have an impact on various aspects of family life. Neighbourhood characteristics can influence an adolescent's development, particularly in relation to their engagement in violence and delinquency (Chung & Steinberg, 2006). The perceived appearance of the neighbourhood and access to green space have also been shown to impact on well-being and, in turn, mental health (Leslie & Cerin, 2008).

Questions H3–H4 asked about the extent to which the respondents agreed with a series of statements about the characteristics of their local area on a four-point scale, ranging from very common to not at all common or strongly agree to strongly disagree.

H5-H6: Concerns about criminal activity by gangs in local area

Gangland crime has been, and still is, a major topic of discussion in Irish society. Fear of gang-related crime can make living in an area very difficult while criminal gangs may be an attraction for vulnerable young people by offering a sense of belonging and a source of income (Association for Criminal Justice Research and Development, 2014).



Question H5-H6 asked Parent One if they are concerned about criminal gangs in their local area. If they were concerned about gang activity they are asked why this is, for example, “drug and drug related activity”. In the pilot study, this question had been open-ended. For the main study, a set of potential responses were given along with an ‘other (specify)’ category.

6.3.9 SECTION J: INTERGENERATIONAL CHARACTERISTICS

This section looked at intergenerational characteristics of the family, recording information on the family circumstances of Parent One when he/she was 16 years of age as well as details on the Young Person’s grandparents. These questions are important to examine intergenerational patterns of advantage and disadvantage among families in Ireland in relation to education and employment.

J1-J2: Parent One’s family structure at age 16

Question J1-J2 recorded Parent One’s family structure at age 16. This will enable comparison of intergenerational family structure (e.g. family size) and facilitate an estimate of previous advantage/disadvantage.

J3: Parent One’s economic circumstance at age 16

Question J3 asked the Parent One when they were 16 years of age with what degree of ease or difficulty did the household make ends meet. This question was asked to compare to the current economic circumstance of Parent One.

J4, J10-J13, J14, J20-J23: Descriptive information regarding Parent One’s parents

These questions recorded descriptive information about the Parent One’s mother and father. Information that was gathered included: if they were alive when the Parent One was 16; what year they were born; if they were still alive and what age they are; and if they had died, what age they died at and what they died of.

J5-J9 J15-J19: Parent One’s parent’s education and occupation

These questions recorded information on the Parent One’s own parents’ education and occupation.

Taken together, these questions will provide new insights into the degree of intergenerational reproduction of advantage and disadvantage in Ireland. The information will allow for the investigation of the extent to which any effect of grandparents’ educational and social resources on young people’s outcomes operates through parental education and occupation or if they have an independent effect even taking these into account. The information on mortality among grandparents can be used to examine intergenerational health outcomes as well as assessing the extent to which grandparents may have a presence in the current lives of young people.



6.4 PARENT TWO QUESTIONNAIRE

The Parent Two Questionnaire was administered to the resident spouse or partner of Parent One. This was usually the male parental figure in the household (generally the father of the Study Child). In situations in which, for example, the father of the Study Child clearly stated that he was Parent One, he completed the longer, more detailed Parent One Questionnaire (discussed in Section 6.3 above).

The Parent Two Questionnaire comprised of a sub-set of items from the Parent One Questionnaire, so cross referencing is used to refer the reader to the relevant sections of the Parent One Questionnaire. The Parent Two Questionnaire is provided in Appendix 2.

6.4.1 SECTION A: PARENTAL HEALTH

A1: General health status

See section 6.3.1, Question A1.

A2-A6: Chronic physical or mental problems, illness or disability – including nature, duration, and constraints of current problem(s).

See section 6.3.1., Question A2-A6.

A7: Parental physical activity

See section 6.3.1., Question A7.

A8&A9: Perceptions of own weight and dieting behaviour

See section 6.3.1, Question A8&A9.

A10-A12: Healthcare insurance

See section 6.3.1, Question A10-A12.

6.4.2 SECTION B: FAMILY CONTEXT

B1: Parental involvement in education

See section 6.3.3, Question C3.

B2&B3: Parental monitoring and disclosure (Stattin & Kerr, 2000)

See section 6.3.3, Question C4 & C5.

B4: Immediate concerns for the Young Person

See section 6.3.3, Question C6.



6.4.3 SECTION C: YOUNG PERSON'S EMOTIONAL HEALTH AND WELL-BEING

C1: Young Person's behaviour

See Section 6.3.4, Question D1.

C2: Young Person's personality

See section 6.3.4, Question D2.

6.4.4 SECTION D: PARENT'S SOCIO-DEMOGRAPHICS

D1-D20: Principal economic status and related variables

See section 6.3.5, Question E4-E22.

D21: Work-life balance

See section 6.3.5, Question E26.

6.4.5 SECTION E: PARENT BACKGROUND CHARACTERISTICS

E1-E7: Highest level of education attainment

See section 6.3.6, Question F1-F7.

E8: Main language of the family

See section 6.3.6, Question F8.

E9&E10: Religion

See section 6.3.6, Question F9&F10.

E11: Spirituality

See section 6.3.6, Question F11.

E12-E16 : Citizenship and length of time resident in Ireland

See section 6.3.6, Question F12-16.

E17: Ethnicity

See section 6.3.6, Question F17.

6.4.6 SECTION F: INTERGENERATIONAL CHARACTERISTICS

F1-F2: Parent Two's family structure at age 16

See section 6.3.9, Question J1&J2.

F3: Parent Two's economic circumstance at age 16

See section 6.3.9, Question J3.



F4, F10-F13: Descriptive Information regarding Parent Two's parents

See section 6.3.9, Question J4, J10-J13, J14, J20-J23.

F5-F9: Parent Two's parents' education & occupation

See section 6.3.9, J5-J9 J15-J19.

6.5 PARENT ONE/PARENT TWO SELF-COMPLETE QUESTIONNAIRE

A common supplementary questionnaire was completed by both Parent One and Parent Two in the home as part of the household interview. The questions were considered more sensitive than the questions asked in the main questionnaire and were included in a separate module for the respondent to self-complete on a CASI basis. With the exception of questions AS1-AS3, which asked Parent One reasons for any departures from the household since the time of last visit, and question S22B which asked if the Young Person had received the HPV vaccine, the questionnaires were identical for Parent One and Two. The content of the questionnaires, the rationale and the measures used are detailed below. The Parent One Self-Complete Questionnaire and the Parent Two Self-Complete Questionnaire are provided in Appendices X and X respectively.

X1-X2: Gender and date of birth

AS1-AS3: Household transitions (Parent One only)

This question was designed to capture information about transitions out of the household since Wave 2. If the respondent indicated on the household grid that a member of the household at Wave 2 was no longer resident in the household at Wave 3, question AS1-AS3 queried the reason for, and timing of, the departure from the household. These questions were only asked of Parent One.

S1-S11: Respondent's relationship to the Young Person

S1-S11 asked a series of questions about the respondent's relationship with the Young Person and whether he/she was the biological, adoptive or foster parent of the Young Person.

S12-S16: Current and previous marital status

Research has repeatedly highlighted the association between family structure, changes in structure and adolescent outcomes. Many studies have documented the increased prevalence of adjustment difficulties among children, young people and even adults whose parents are separated or divorced. For example, Størksen et al (2005) found using a sample of Norwegian adolescents that parental divorce is associated with an increased risk of anxiety and depression, lowered subjective well-being, lower self-esteem and school problems in adolescents. However, there has been a good deal of debate about the extent to which the associations found reflect differences in socio-economic resources or other pre-existing differences between families who do or do not experience divorce, or a direct effect of the



experience of separation or divorce. Longitudinal data from the current study will enable researchers to explore the influence of family structure on adolescent outcomes taking into account a rich array of other background factors and can explore changes in family structure between waves to provide more precise estimates of any effects.

S17-S18: Quality of the Parent/Couple relationship

Marital satisfaction is an important factor in family functioning. Some research has found that frequent, intense, and poorly resolved conflict between couples contributes to the likelihood of adolescents developing symptoms of internalizing problems, including depression and anxiety, as well as externalizing problems and difficulties, including aggression and substance abuse (Thompson & George, 2017). Furthermore, marital satisfaction is a key component of adult life satisfaction (Bradbury, Fincham & Beach, 2000).

Question S17-S18 focused specifically on parental conflict. The parent was asked how frequently they argued with their partner (S17). The parent was also asked how often they used verbal or physical aggression towards their partner from almost never/never to almost always/always (S18).

S19-S20: Dyadic Adjustment Scale

The quality of the couple's relationship was measured using the short four item form of the Dyadic Adjustment Scale (DAS-4) (Sabourin, Valois & Luisser, 2005). This scale provides an assessment of dyadic satisfaction and is used as a means of categorising marriages as either distressed or adjusted. There is strong evidence from a number of studies that the short form of the DAS, used in *Growing Up in Ireland*, is less time-consuming for respondents while still retaining the coverage of core areas of the original 32-item DAS (Spanier, 1976). This version and the 7-item version have been used in previous waves of *Growing Up in Ireland* and so provide longitudinal continuity in measuring the quality of the couple's relationships.

Sabourin et al. (2005) found reliability for the 4-item measure to be higher than .81 at all levels of couple distress. The reliability of the DAS-4 increased to .92 for non-distressed participants. The traditional standardised alpha for the DAS-4 was .84, and the standardised alphas for the alternative DAS-7 used in previous studies was .85 (Sharpley & Rogers, 1984) and .94 for the original DAS-32. Differences among the short versions of the DAS were not found to be substantial; therefore, the four-item version preserved good internal consistency. The reliability of the scale at age 17/18 of *Growing Up in Ireland* was .66 for Parent One and .62 for Parent Two.

S20b: Quality of Family Relationship

All families have their ups and down; however, a cohesive family environment is important for each family member's well-being. It has been found that lower family cohesion is



associated with more contentious disputes, poorer communication and poorer emotional well-being for all family members (Rabinowitz et al., 2016).

Question S20b asked the Parent One and Two to rate how well member of the household get on from '1' we don't get on at all to '10' we get on very well.

S21: Parental Stress

Although parenting is rewarding for most parents, it provides challenges, particularly as the child transitions through adolescence and further into adulthood (Laursen & Collins, 2009). Parental stress is associated with negative parenting attitudes, negative parenting behaviours and poor parental wellbeing (Crnic, Gaze & Hoffman, 2005). Research has focused on the determinants of parental stress, which include poverty, social disadvantage, lack of education and poor child health (Warfield, 2005). However, it is the consequences of parental stress that is of interest in the present context.

The Parental Stress Scale (Berry & Jones, 1995) is an 18 item self-report scale designed to assess both positive and negative aspects of parenthood. It comprises of four sub-scales: Parental Rewards, Parental Stressors, Lack of Control and Parental Satisfaction, with items rated on a five point Likert scale, ranging from "strongly disagree" to "strongly agree". A total stress score is calculated as a composite of the items (ranging from 18-90), with higher scores indicating higher levels of stress. Similar to wave 2 of the study, only the six-item parental stressor sub-scale was included in the present study. The stress sub-scale has been found to have reasonable internal reliability: $\alpha=.62$ (Parkes, Sweeting & Wight, 2015). In the *Growing Up in Ireland* pilot study, parental stress was positively correlated with maternal depression and negatively correlated with some of the more positive aspects of parenting, including intimacy and admiration. Where maternal stress levels were elevated, parental monitoring tended to be lower and levels of antisocial behaviour were higher. The Cronbach Alpha for the scale at the current wave of *Growing Up in Ireland* was higher than that found by Parkes et al. (2015) at $\alpha=.76$ for Parent One and $\alpha=.76$ for Parent Two.

S22: Current Pregnancy Status

This question was asked of all female respondents.

S22b: Human Papilloma Virus Vaccine (Parent One)

Cervical cancer is the second most common form of cancer of women in Europe. The HPV vaccine is freely available to all secondary school students and protects young girls from 7 out of 10 forms of cervical cancer. Due to recent media coverage about adverse side effects associated with the vaccine, there has been a drop in the number of females receiving the vaccine. However, there are no studies to support claims that the vaccine is responsible for any chronic side-effects and the lack of uptake of the vaccine has worrying consequences for the prevalence of the disease. Therefore, the information collected will provide further



information on the frequency of the vaccine uptake in the *Growing Up in Ireland* cohort and will also enable the researchers to investigate the groups who did not receive the vaccine to establish any contributing factors as a basis for public health initiatives to target these groups.

S23-S25: FAST

Alcohol consumption is a major risk factor for the burden of disease globally. Alcohol is linked to many disease categories, but has a strong direct effect on alcohol-use disorders, cancer, cardiovascular disease, liver cirrhosis, and injury (Rehm et al, 2009).

Parents having a liberal attitude to alcohol and themselves having higher levels of alcohol consumption have been found to have adolescents engaging in more hazardous levels of drinking (Murphy et al., 2016). Excessive parental alcohol use can also have an adverse impact on young people. A study by the Irish Society for the Prevention of Cruelty to Children (ISPCC) (2010) found that young people whose parents drank excessively reported experiencing neglect, violence and abuse, feelings of stigma and shame, and coping difficulties. Conversely, parents who model responsible alcohol use can have a positive influence on their child by promoting appropriate behaviours regarding safe alcohol use (ISPCC, 2010).

Measure

The fast alcohol screening test (FAST) (Hodgson, et al, 2002) was developed in the UK as a short screening tool for alcohol misuse. It builds upon work done in a World Health Organisation (WHO) study that resulted in a 10-item questionnaire called the AUDIT (Allen et al, 1997). The average administration time of the FAST reported by the test authors was 20 seconds. The scale comprises four items (questions 25a-25e), but the test authors assert that 50 per cent of people may be classified as 'hazardous' or 'not hazardous' drinkers using the answer to the first item 'How often do you have EIGHT or more drinks on one occasion?' (six drinks are used as the threshold for women). The five answer categories range from never to daily. The remaining questions asked whether the respondent was not able to remember the night before (25c), failed to do what was normally expected of them (25d), and whether someone had advised them to cut down on their drinking (25e). When these items are scored as 0-16, a person is classified as a 'hazardous' drinker if the total score is three or more. Since anyone who answers S25a/b in terms of having six or eight drinks on one occasion weekly or more often is automatically classified as a hazardous drinker, and the rest of the questions are skipped, not everyone will have a continuous score. If a person answered 'never' to S25a/b, he or she was not classified as a hazardous drinker and the remaining questions were not asked. If a person answered 'monthly' or 'less than monthly', the other three questions were asked so as to complete the screening for hazardous drinking.



Psychometric information

The FAST scale was developed using 3,000 administrations in over 100 medical settings. A check on specificity and sensitivity (see Altman & Bland, 1994), compared to the original AUDIT, using 2,185 patients admitted to an A&E setting found the sensitivity of the FAST to be 93 per cent, with 88 per cent specificity.

Additionally questions were also asked on frequency of alcohol consumption and quantity of alcohol (by type) drunk (S23-S24).

S26-S28: Parental smoking habits and Young Person's exposure to environmental tobacco smoke

Tobacco use is the leading cause of preventable illness and death in Ireland. Tobacco kills more than 7 million (1 million of which is a result of exposure to second-hand smoke) people worldwide each year and is the leading cause of cancer. Nine out of ten smokers begin smoking before the age of 18.

Studies have shown that parents who are smokers have a strong influence on their offspring's smoking behaviour (Engels et al, 2004). As well as influencing their smoking behaviour, there is also strong evidence that environmental tobacco smoke (ETS) is deleterious to people's health, contributing to the risk of atherosclerotic heart disease, lung cancer, stroke, breast cancer and so on (Celermajer et al, 1996; World Health Organisation, 2015).

Questions S26 to S28 asked Parent One and Two about current smoking and daily smoking habits. Although the validity of self-reported smoking has been challenged on the grounds that smokers are inclined to underestimate the amount that they smoke or deny their smoking status, studies have found that misclassification rates tend to be small in the general population (Studts et al, 2006). Moreover, Patrick, Cheadle, Thompson et al.'s (1994) meta-analysis of 51 studies comparing self-reported smoking with direct biochemical measures found high levels of sensitivity (87 per cent) and specificity (89 per cent) for self-report averaged across studies, which reinforces the validity of self-reports, given that alternative techniques (e.g. analysis of urinary cotinine) are not operationally feasible. These questions were supplemented with an additional question (S28), which asked how many people smoked in the house, being designed as a crude measure of the Young Person's exposure to Environmental Tobacco Smoke.

S29: Drug Taking

Adolescents are more inclined to experiment with drugs and acquire an accepting attitude towards drug use if their parents are drug users or their parents have a tolerant attitude towards drugs (Bahr Hoffmann & Yang, 2005). Research has also shown that young people whose parents use drugs are often left to their own devices and lack parental control; as a result, they exhibit higher rates of delinquency, deviance and criminality (Jackson, 2013).



S29 asked if the respondent is currently using any illicit drugs such as cannabis, marijuana, ecstasy, speed, heroin, methadone, crack or cocaine. Response categories ranged from regularly through occasionally to not at all.

Although it is likely that drug use may be under-reported to some extent, and possibly more so for more 'heavy' drugs, CASI was used to try to alleviate this problem.

S30-S31: Parent One Mental Health

The impact of parental mental illness on children and adolescents is a subject of concern for policy makers (Trondsen, 2012). Parental mental illness has consistently been linked to mental health problems in adolescents, including anxiety, depression and substance misuse (Van Loon et al., 2014). Some commentators have suggested that a predisposition to (some) mental health disorders can be inherited (Patel et al., 2007). However, there have been a number of other reasons proposed to explain the link between parental mental illness and psychological difficulties among adolescents. Parenting practices may be impacted by the mental illness; studies have shown that the parent with a mental illness may be unresponsive or negative, thus contributing to insecure attachment, poor emotional self-regulation and poor social interactions among adolescents. Furthermore, the poverty and high levels of stress associated with maternal depression are also predictors of subsequent adjustment problems in adolescents (Roustit et al, 2010).

Questions S30a–S30b concerned whether the respondent has received a formal diagnosis of depression, anxiety, nerves or phobias and whether they are currently taking medication for this condition.

Growing Up in Ireland also included the Centre for Epidemiological Studies' Depression Scale (eight-item) (CESD-8), a short self-report screening instrument for depression in the general population. Answers are given on a four-point rating scale, ranging from rarely or none of the time (0 days) to most or all of the time (5-7 days), with a reference period of the previous seven days. A composite score is calculated by summing responses across the eight items (range: 0–24). Respondents are categorised according to the recommended criterion for depression, with composite scores of seven or more being classified as 'depressed' and scores below seven defined as 'not depressed'. While a score above or equal to seven suggests a clinically significant level of psychological distress, it does not necessarily mean that the participant has a clinical diagnosis of depression. This measure was also used at the previous two waves of the study and will help to identify parents who are more prone to depression (over three waves) or those who have experienced it at one wave only (in the past or currently), and map this to the Young Person's outcomes.



Psychometric information

The CESD-8 has good internal reliability ($\alpha = 0.86$) and the scale correlates 0.93 with the original 20-item version of the instrument. Test-retest reliability is 0.83 and 0.87 for assessment at 6 and 12 months respectively (DiClemente et al, 2005). The concurrent validity of the scale has been established through its association with other depression measures such as the Beck Depression Inventory (Melchior et al, 1993). Furthermore, it has been shown to discriminate depressive disorders from other forms of psychopathology (e.g. Roberts, Andrews, Lewinsohn & Hops, 1990). The scale had good internal reliability at age 17/18 of *Growing Up in Ireland* ($\alpha = .86$ for Parent One and $\alpha = .83$ for Parent Two).

S32-S33: Family contact with the criminal justice system

The intergenerational transmission of crime is one of the oldest findings in criminology (Beaver et al, 2012). Recent evidence has shown that crime tends to cluster within families, with a small number of families being responsible for a considerable proportion of the crimes committed (Flynn, et al., 2017). The risk of adolescents being imprisoned if their parents have been/are imprisoned is well documented. Dallaire (2007) found that of 1,427 incarcerated parents with an adult child, 21% of mothers and 8.5% of fathers had an adult child who had been in prison.

Questions S32 and S33 asked whether Parent One or Two had ever been in trouble with An Garda Síochána (the Irish police service) and if they had ever been to prison. Question S33c-S33f asked if the Young Person's siblings or aunts/uncles had ever been in trouble with An Garda Síochána and if they had ever been to prison. Question S33b listed a number of items regarding the Young Person's involvement with the criminal justice system and Parent One and Two was asked if they had been involved "yes in the past year", "yes more than a year ago", "no or don't know". This information will enable the unpacking of the processes underpinning any intergenerational patterns found, for example, the role of parenting practices or neighbourhood deprivation.

S34: Parental knowledge of child's use of alcohol or drugs

As mentioned above, while parental monitoring in later adolescence is not as essential, it is still important for parents to have some level of control over the young adult. Parental knowledge of the adolescent's behaviour has been associated with a lower risk of substance use and delinquent behaviour (Tebes et al, 2011).

Question S34 asked the parents, to the best of their knowledge, had their child ever tried alcohol, cigarettes or cannabis/marijuana. The answer categories definitely, probably, possibly and I don't think so were used in place of definitive yes/no answer categories, so as to tap in to the respondent's perceptions of the Young Person's behaviours as the parent may not have seen definitive evidence.



S35: Parent-child discussions of sexual health issues

Research has shown that parents can have a positive influence on adolescents' sexual behaviours (Hutchinson et al, 2003). Adolescents who talk to a parent about initiating sex have been found to initiate sex at a later age, be more likely to use condoms and to have fewer sexual partners. Furthermore, young people who have more open conversations with their parents about sex are less likely to ask friends for advice and as a result are less likely to conform to peer norms of sexual behaviour (Whitaker & Miller, 2000).

Question S35 asked the parent if they had spoken to their child about a range of sexual issues, including sexual intercourse, contraception and sexually transmitted infections. This information is important to explore the extent to which parents openly communicate about sex with their child and the implications this has for sexual behaviour.

S36-S47: Non-resident parent information

Some research has shown that children and adolescents who grow up with a non-resident parent are at a higher risk of developing adjustment problems and delinquent behaviours (e.g. Jablonska & Lindberg, 2007) but, as indicated above, many studies fail to unpack the processes underlying any such patterns. However, the quality of the non-resident parent and child relationship has an important influence on the risk of developing any problems. High quality relationships, in which a non-resident parent exhibits warm and supportive behaviours, is associated with fewer internalizing and externalizing problems and better academic performance in adolescence in comparison to those who have a weak relationship with a non-resident parent (King & Sobolewski, 2006).

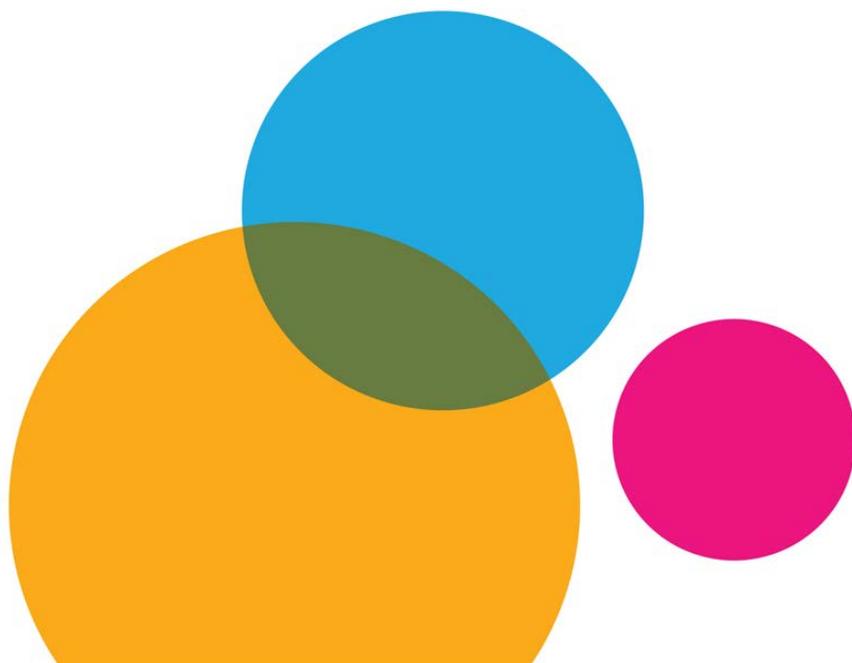
Questions S36-S47 were also asked at Wave 1 and Wave 2 of the study, and the questions were only asked of respondents who indicated that the Young Person's biological father/mother was not resident in the household. Questions S36-S38 asked the Parent about their past relationship status with the non-resident parent and when they separated/divorced; questions S39-S44 asked about parenting arrangements, frequency of contact with the Young Person and financial contributions towards the maintenance of the Young Person. Finally, questions S45-47 asked about the quality of the relationship between the parent and the non-resident parent. The parent was asked these questions to enable comparison of the information provided by both parents and to ensure that the information was obtained from at least one source in those instances where contact details were not available for, or it was not possible to contact, a non-resident parent. This information will be crucial in examining the extent to which, and in what ways, the quality of involvement of the non-resident parent influences young people's outcomes.





Chapter 7

YOUNG PERSON INSTRUMENTS





7 YOUNG PERSON INSTRUMENTS

7.1 INTRODUCTION

This chapter details the instruments used with the Young Person in the home. The Young Person was asked to complete a Main Questionnaire and a Self-Complete Questionnaire (subject to parent approval and signed consent if 17 years of age). The main questionnaire was administered to the Young Person on a CAPI basis and the sensitive questionnaire was self-completed by the Young Person on a CASI basis.

Cognitive tests were also administered to the Young Person in the home (these are discussed in detail in Chapter 8). A time-use diary and food frequency questionnaire were left in the household to be completed by the Young Person (see Chapter 9 for more detail).

A detailed discussion of the rationale for inclusion of the items and scales is provided below. The questionnaires are provided in Appendices 8 and 9.

7.2 YOUNG PERSON MAIN QUESTIONNAIRE

7.2.1 SECTION A: CURRENT EDUCATION OR WORK STATUS

This section focused on establishing the Young Person's principal economic status (i.e. school, further education, employment). It also contained questions on early school leaving if applicable.

A1 Principal economic status

At the age of 17/18, the economic status of a young person tends to vary due to the diverse pathways available to them. The majority of 17/18 year olds are in school or progressing onto Higher/Further education. However, others may have commenced employment, be on a training programme, unemployed or taken a year out. Question A1 aimed to determine the Young Person's principal economic status. This was important for routing the questions the Young Person was asked throughout the interview. This question was also asked to compare the implications of different pathways on the Young Person's development and well-being.

A2 Current school year

Question A2 recorded what year the Young Person was in if they were still in school.

A3-A4 Details on when finished second-level education

If the Young Person specified that they had finished education they were asked when they had left school and what year they had left at (A3a). This was important to determine if the Young Person was an Early School Leaver (who left before completion of the Leaving Certificate programme) and how early they had left school (Pre/Post Junior Cycle). If the Young Person was not in full-time education they were asked about their intention to return to education in the next year.



A5 Reason for not working or continuing in education or training

Question A5 asked the Young Person to specify the main reason why, from a list of options, they were not currently working or continuing in education or training (e.g. pregnancy, illness or injury etc.).

7.2.2 SECTION B: EXPERIENCE OF SECONDARY SCHOOL

This section contained questions on choice and experience of the senior cycle programme and participation in the Transition Year programme.

B1 School-related information

Question B1a recorded the name of the school the Young Person is currently attending/did attend. Question B1b recorded if the school was a boarding school. This information can be used by researchers to explore difference between schools in adolescent outcomes, for example, performance in the Junior Certificate.

B1c-B3 Junior Certificate results

The Junior Certificate is an exam taken by students at the end of their third year of secondary school. The Junior Certificate exam is important as it gives students an opportunity to experience sitting a State examination before the Leaving Certificate. Research has shown that Junior Certificate results are highly correlated with Leaving Certificate results as both exams test similar abilities (Smyth et al, 2011). Furthermore, for individuals who leave school early, the Junior Certificate provides them with a qualification (Level 3 qualification on the National Qualification Framework).

Question B1c – B3 recorded if and when the Young Person sat the Junior Certificate, how many subjects they sat, what subjects they sat and the level and grade of each. These questions were taken from the Post Primary Longitudinal Study.

B4 Transition Year

Transition Year is the fourth year of second-level education, between the Junior Certificate and the two-year Leaving Certificate programme. The year may be optional or mandatory depending on the school's policy. The programme is designed to promote a range of competencies and skills not usually emphasised within a traditional academic education. The Transition Year programme places emphasis on developing personal and social skills, self-directed learning, and provides young people with experience of working life. Students who participate in Transition Year have been found to perform better in the Leaving Certificate and they are also twice as likely to have applied to higher level education in comparison to those who skipped Transition Year (Smyth, Byrne & Hannan, 2004).

Question B4 asked the Young Person about the Transition Year programme and, in particular, their level of satisfaction with the year.



B5a-B11 Senior cycle programme

There are three types of senior cycle programme: the Established Leaving Certificate, the Leaving Certificate Applied and the Leaving Certificate Vocational Programme. Access to the programmes varies across schools.

The Established Leaving Certificate exam is taken at the end of second-level education. Students usually take seven or eight subjects for a two year period and they are assessed through a terminal exam. Most students who sit the Established Leaving Certificate progress onto Further or Higher Education.

The Leaving Certificate Vocational Programme (LCVP) is not a stand-alone programme, but is taken as part of the Established Leaving Certificate. It was designed to give the Leaving Certificate a vocational aspect. Students take at least five subjects, along with the two compulsory LCVP link modules.

The Leaving Certificate Applied programme is a separate stand-alone programme of two years duration, with a particular emphasis on preparing students for adult and working life. It caters for students who prefer the practical approach over the purely academic approach. However, the Leaving Certificate Applied programme limits access to third-level education and can put young people at greater risk of unemployment in the immediate post-school period (Banks et al, 2010).

The results achieved in the Leaving Certificate have an important influence on access to further education, training and even employment (Smyth & McCoy, 2009). No single factor has been found to be predictive of Leaving Certificate performance; rather it is the interplay of a number of factors that influence achievement, including gender, maternal education, prior cognitive ability, academic self-esteem, etc.

The information collected on Leaving Certificate performance at this wave of *Growing Up in Ireland* can be used to examine, cross-sectionally and longitudinally, the factors that influence performance in the Leaving Certificate, and also the short-term implications of Leaving Certificate achievement.

Question B5a - B7 asked the Young Person what Leaving Certificate programme they undertook and the results that they achieved. Question B8 listed all subjects on the Established Leaving Certificate syllabus and asked the Young Person to identify what subjects and level they did and what grade they got. Question B9 listed all modules on the Leaving Certificate Applied course and asked the Young Person to specify what subjects they did. Question B10-B11 asked the Young Person if they had any regrets about their subject choice, how important they felt it was to do well in the Leaving Certificate and their perception of their ability in Mathematics, Irish and English.

B12-B16 Early school leavers

The last two years of a young person's secondary education are a critical time for his/her future well-being and occupational mobility (Hampden-Thompson & Galindo, 2015). Despite significant increases in the number of students staying in school to complete second-level education, a small minority still



leave school early. Early school leaving in an Irish context is defined as “leaving full-time second-level education before completion of the Leaving Certificate (Leaving Certificate Established, Leaving Certificate Vocational Programme, or Leaving Certificate Applied Programme) examination” (Byrne & Smyth, 2010). From a societal perspective, early school leaving is a concern as it is associated with a higher risk of number of negative outcomes, including increased demand on social services, foregone national income and tax revenues, poorer levels of health and unfulfilled human capacity (Freeney & O’Connell, 2012).

Question B12-B16 asked the Young Person what age they left school, what influenced them to leave school early, if any friends or siblings left school early and the likelihood of returning to education in the next five years. These questions were only asked of respondents who left school prior to the Leaving Certificate.

B17a-B19 Private tuition

Private tuition outside school hours, or ‘grinds’ as they are termed in Ireland, are taken by a significant number of young people in their second-level exam years. Students who take grinds have been found to perform better in the Leaving Certificate in comparison to those who do not take grinds. However, this pattern reflects the greater take-up of grinds among middle-class, higher achieving students who intend to go on to higher education, with little net impact once these differences are taken into account (Smyth et al, 2011).

Question B17a-B19 asked the Young Person if they did grinds, how frequently they took grinds and if they found them useful.

B21-B25 Extra help in school

Questions B21-B25 were used to identify those who were receiving extra tuition in school. This measure may be linked to school performance at 9 years, 13 years and currently to ascertain if individuals with difficulties in Reading, Maths and Irish are being identified and targeted for support within the school system, and whether or not this has helped in terms of educational outcomes. This has important implications for their experience of school, future outcomes in the labour market, and other areas of life. This question was taken from the Post-Primary Longitudinal Study.

B26-B28 Attitudes towards school

Young people who have more positive attitudes towards school have been shown to have greater self-efficacy, positive relations with teachers, and better general well-being (Tian, Chen & Huebner, 2014; Huebner & Gilman, 2006). Smyth et al, (2011) found that individuals who were more satisfied with school did better academically in comparison to those who were not as satisfied with school.

Question B26 contained three statements regarding the Young Person’s attitudes towards school and teachers and were adapted from the Leaving School in Ireland study. The respondent was asked to rate each statement on a four point scale from strongly agrees to strongly disagree. Question B27



listed a number of statements about positive and negative interactions the Young Person could have had with teachers. The respondent rated each statement on a four point scale from very often to never. Question B28 presented a number of statements about the benefits of secondary school. The Young Person was asked if each item benefitted them, with the response categories: “yes a lot”, “yes some” and “no help”. This question was adapted from the Post-Primary Longitudinal Study.

In the *Growing Up in Ireland* pilot study, information had been collected on attitudes to Irish, English and Maths. In order to reduce the length of the interview with the Young Person to manageable levels, these questions were dropped for the main study.

B29&B30 Young Person’s perception of ability

Studies have shown that perceived ability in a variety of areas in life is correlated with actual ability (Allen & Howe, 1998; Mabe & West, 1982). Question B29 and B30 asked the Young Person how well they thought they did in exams and in sport compared to other people their age from 1 above average to 5 below average.

7.2.3 SECTION C: CAREER GUIDANCE AND ATTITUDES TO FURTHER/HIGHER EDUCATION

This section contained questions about who the Young Person consulted in making decisions about their future and what career guidance they received in school or elsewhere. Further questions were also asked regarding applications to third-level education if the Young Person was still in school.

C1 Individuals consulted about future

At the age of 17/18, young people have to make difficult decisions about their future pathway. Research has shown that student decision-making in relation to post-school pathways can be influenced by a number of factors, including social background, the home environment, the individual’s own aspirations and preferences and so on. Smyth et al (2011) found that parents have the greatest influence on their child’s future plans, followed by the school guidance counsellor and friends.

Question C1 listed a number of individuals (e.g. the guidance counsellor, family member) the Young Person was asked if they consulted the person and to rate if they were very important, important or not important in their decision about what to do when they left school.

C2 Career guidance and resources used in decision-making

International evidence suggests that career guidance, such as individual guidance interviews, group-work sessions and access to career related information, can have a positive impact on the development of students’ career-related skills (Morris et al, 1999). Career guidance is important for Irish students in their final year of school in helping them to make an informed decision regarding their post-school pathway. However, research suggests that there are differences between schools in the



level of guidance provided, and many young people are disappointed with the amount and nature of the guidance that they receive (Smyth et al, 2011).

Question C2 asked the Young Person what career guidance/resources they used to decide what to do after they left school.

****The following questions (C3-C14) were only asked to respondents who are currently in school****

C3 Planned principal economic status post-school

Question C3 listed a number of post-school pathways and the Young Person was asked to choose what they were most likely to do when they left school.

C4a-C6 C9-C11 Application to third-level education

Third-level education has become the dominant post-school pathway among young people in Ireland. Choice of course and institution have been found to reflect the complex interplay of student characteristics (such as gender and social class), prior educational achievement, the characteristics of the school attended and the guidance received (McCoy & Byrne, 2011).

If the Young Person specified that they plan on attending third-level education, they were asked question C4a-C5. Question C4a-C5 asked the Young Person what course they plan to complete in college, what college they plan on attending and what influenced their choice of third-level institution. If they had not decided on a course but planned on attending third level, they were asked whether and why they were having difficulties with their decision (C6).

Question C9-C10 asked the Young Person if they have applied to Further or Higher education, and if so what type of course they applied for. The Young Person was then asked if *Growing Up in Ireland* could have access to their Central Application Office (CAO) information (C11). This will be used to investigate what kind of courses young people applied to and what course on their list of preferences they were offered.

C7 Apprenticeships

An apprenticeship is a recognised way for people to become a craftsperson. An apprenticeship usually alternates between on-the-job training with an employer and training in an education centre. Apprenticeships are designed for people who may be less academically orientated and instead want to learn a craft.

If the Young Person specified that they intended to complete an apprenticeship, they were asked where they planned on completing the apprenticeship and in what field (Question C7).



C8 Defence Forces

Another route students can take after finishing education is the defence forces. Question C8 asked the Young Person what branch of the defence force they hope to join, and if they plan on joining in Ireland or elsewhere.

C12-C14 Attitudes towards Higher Education

There are a variety of reasons why young people do not attend college. For some, continuing in an academic environment is not suited to them, while for others the cost of attending third level may sway their decision. Despite the abolition of tuition fees, registration fees are higher in Ireland than tuition fees in almost all European countries (except England) and significant costs are involved in attending higher education (including accommodation, transport, living expenses etc.). A significant proportion of students receive State maintenance grants, but the value of these grants has declined relative to income levels over time and students are highly reliant on financial support from their parents and on income from part-time jobs (Smyth et al, 2011; Higher Education Authority, 2014).

Question C12 asked the Young Person how likely they were to return to full-time education in the next five years. Question C13 asked the Young Person about their attitudes towards Universities/Institutes of Technology. Questions C14 & 15 asked if the financial aspects of attending third level impacted on their decision not to apply and if so, what financial aspects were they concerned about.

7.2.4 SECTION D: INVOLVEMENT IN POST-SCHOOL EDUCATION AND TRAINING

This section was only asked of respondents who had already left school. The questions in this section asked the Young Person about applications to, and experience of, Higher/Further Education.

D1-D9 Application to Further/Higher education

Question D1-D5 asked the Young Person if they had ever applied for a place in Further/Higher education, what type of course they applied for, and if they were offered a place on this course. Question D6-D8 recorded if the Young Person accepted any offer for a place in Further/Higher education. These questions were adapted from the Leaving School in Ireland Study.

D10-D11 Participation in Higher/ Further education course/Apprenticeship

Question D10 asked the Young Person if they had participated in any further education or training course since leaving school. If so, they were asked to provide the name of the course or apprenticeship and the name of the institution they were attending (11a & 11b). Details on the start date of the course and expected duration were also recorded.

D12&13 Funding for course

Question D12 & D13 recorded details on how the Young Person funded their course.



D14-D16 Completion of the course

Question D14 recorded if the Young Person was still on the course, completed it or left before completion. If the Young Person left before completing the course, they were asked to specify why (D15).

D17 Influences on choice of post-school education or training institute

A number of factors influence choice of college or training institute. Kallio (1995) found that aspects of the institute, such as the size of the institution, college reputation/ prestige, course diversity, facilities and the social life, have an influence on where to attend college. However, little research has been done in Ireland on the impact of factors other than geographical attendance on college attendance. Such information could be used to trace the factors influencing choice of institution and the extent to which some factors such as wanting to live in the parental home constrain choice. This issue may be particularly pertinent given recent increases in the costs of rental accommodation for students.

Question D17 listed a number of items an individual may consider when deciding on what education or training institute to attend. Each item was rated on a four point scale from “very important” to “not at all important”.

D18 Special educational need/disability and supports provided

Question D18a asked the Young Person if they had any special education need or disability that affected their learning while at post-school education or training. If so, the Young Person was asked if they received any extra educational supports, what form this support took and if they found this support useful (D18b-D18d). If the Young Person did not receive any extra educational supports, they were asked if they would like extra support (D18e).

*****The following questions were only asked to respondents who had left school but had not planned on attending higher education*****

D19-D21 Attitudes towards Higher Education

Question D19 asked the Young Person three statements about their attitudes towards Universities/Institutes of Technology. Each statement was rated on a four point scale from strongly agree to strongly disagree. Questions D20 & 21 asked if the financial aspects of attending third level impacted on the Young Person’s decision not to apply and if so, what financial aspects they were concerned about.

7.2.5 SECTION E: PARENTAL ENGAGEMENT IN EDUCATION

E1 Parental Involvement in Education

As mentioned in the previous section on the parent main questionnaire, parental involvement in education plays an important role in adolescents’ educational achievement and school engagement (Steinberg et al, 1992).



Question E1 listed a number of ways parents can be involved in the Young Person's education. The Young Person was asked to rate each item from never or hardly ever to several times a week. This question was also asked of Parent One and Parent Two, to investigate if there are differences between parents' perceived involvements and how involved the Young Person thinks their parents are. Any potential mismatch may highlight gaps between parents and children regarding the kind of support needed for effective transitions.

E2&E3 Help with Homework or Study

Questions E2 & E3 asked the Young Person if they ever received help from their parents, brothers and sisters or friends with homework and study.

7.2.6 SECTION F: PART-TIME WORK WHILE IN EDUCATION

F1-F6 Part-time Employment

Many 17/18 year olds have a part-time job. Part-time employment at age 17/18 can have both a positive and negative impact on the young person if they are still in second-level education. Employment, particularly during the final year in school, can be associated with poorer academic performance, poorer quality relationships with friends and parents, and lower mood (Largie et al, 2001). However, part-time employment also has positive effects, including a stronger sense of self-efficacy and employment orientation (Mael, Morath & McLellan, 1997).

Term-time employment while at third-level education has been found to be an important source of funding for educational resources and social activities. It can also assist in young people becoming financially independent from their parents.

Question F1 asked the Young Person if they ever had a part-time job during term-time in school or college. If the Young Person had worked while in school or college, they were asked how many hours they worked per week, how much money they earned on average each week and to briefly describe the job (F2-F4). The Young Person was also asked if they had ever done any work in a business owned or run by a family member (F5) and whether they ever had a short-term work placement as part of the curriculum in their final year of school (F6).

7.2.7 SECTION G: ATTITUDES TO WORK

This section was asked of all respondents regardless of whether they were currently working or not. It looked at ideal and expected career, and attitudes/values towards work and other aspects of life.

G1 Occupational aspirations

Question G1 asked the Young Person what job they would really like to get in the future (G1a) and what job they expect to get (G1b). Teenage career aspirations have been found to predict occupational outcomes in their thirties, even taking account of family background and cognitive ability (Schoon & Polek, 2011). There has been a lack of research on occupational aspirations in Ireland so *Growing Up*



in Ireland could provide important insights into the influence of family and school factors on the formation of such aspirations.

G2 Things to look for in a job

Choice of career is an important decision that requires caution and serious consideration. People's career choice is influenced by a variety of factors; some people have intrinsic reasons for choosing a job, such as meaningfulness of the work, while others have extrinsic reasons, such as job security or high income. Intrinsic work values in young adulthood have been found to be predictive of intrinsic values in adulthood as well as greater career and life satisfaction (Chow et al., 2017).

Question G2 listed a number of factors a person may consider when choosing a job. The Young Person was asked to choose the three factors that they would consider most important to them.

G3 Adult Identity Resolution Scale

A number of commentators have pointed to a more prolonged period of transition to adulthood, with research indicating that many young people do not consider themselves adults until their early- to mid-twenties (Piotrowski, Brzezińska, & Luyckx, 2015). This can be partially explained by higher levels of participation in tertiary education and changing economic conditions contributing to increasingly precarious trajectories for young people (Côté, 2002). Furthermore, other aspects of transition such as buying a house, partnership formation and parenthood have happened at older ages. The prolonged transition into adulthood is associated with a number of negative outcomes. Schwartz et al (2010) found that young people who considered themselves adults were more likely to avoid risky behaviours, such as drug misuse, risky sexual practices and driving while intoxicated. Nelson & Barry (2005) also found that individuals who perceived themselves to be adults had a better sense of their own identity and were at less risk of being depressed.

At age 17/18 years of *Growing Up in Ireland*, the Adult Identity Resolution scale was used to measure the extent to which the Young Person consider themselves to be an adult. The scale is a subscale of the Identity Resolution Index and has been used in other similar longitudinal studies (such as the Longitudinal Study of Young People in England). The scale consisted of three questions scored on a five point scale from 1 entirely true to 5 not at all true. This was later reverse coded from 4 to 0 for scoring. The scale has been found to have good internal reliability $\alpha = .79-.84$ (Luyckx et al, 2008). Cronbach alpha at age 17/18 years of *Growing Up in Ireland* was $\alpha = .72$.

G4 Importance of areas of life

There is growing interest in the concept of purpose and what it means for individuals to have purpose in their life. Researchers have recently recognised purpose as a vital indicator of adolescent well-being (Malin et al, 2014). Many different approaches have been used to categorise purpose; for example, Hill et al. (2010) found that young people found purpose through happiness, religion, financial and occupational dimensions of their lives.



Question G4 was a 12 item measure which asked respondents to rate the relative importance of different aspects of life on a six-point scale. It was based on a measure used in two Youth surveys of the German Youth Institute and the Growing Up in Germany (DJI – AID: A) study. The aspects of their lives include: parents and siblings; partnership; health care; religion; health; politics; and engagement in associations and organisations. Items are rated on a scale from 1-6 where 1=not important and 6=very important.

G5 Belief in the value of work

Belief in the value of work is the degree to which an individual wants to be employed and views being employed as important (Jackson et al, 1983). People's work values develop in childhood and have been shown to reflect their parents' positions in the occupational structure. However, work values are not stable and are subject to change throughout the life course (Johnson, 2002).

The Belief in the Value of Work scale is a five-item measure examining how a person values work and being employed. A higher score indicates a belief that employment is important. This scale was developed by researchers on the ESRC 16-19 Initiative research programme. The scale contains five statements rated on a four point scale from 1 strongly agree to 4 strongly disagree; these statements include 'a person must have a job to feel a full member of society' and 'having almost any job is better than being unemployed'. The scale has reasonable internal reliability with alphas of .62 and .63 (from the first and third wave respectively of the ERC 16-19 Initiative research project). Cronbach alpha at age 17/18 of *Growing Up in Ireland* was $\alpha = .57$.

G6 Support for sex equality

There has been a huge change in women's life patterns. In the past, women were expected to take a more nurturing role and work-full time in the home. Men, on the other hand, were seen as the head of the household and were expected to provide for the family financially (Blackstone, 2003). While gender roles have changed with more women staying longer in education and acquiring higher-ranked positions, women are still being discriminated against, for example, in relation to salary (Morgan McKinley, 2016).

The Support for Sex Equality scale measures gender discrimination. This scale was also developed by researchers on the ESRC 16-19 Initiative research programme. The scale contains six statements rated on a four point scale from 1 strongly agree to 4 strongly disagree. These statements include 'women are as capable in senior positions as men' and 'it is less important for a woman to go out to work than it is for a man'. Reliability for this scale in the ESRC wave three was .79. Reliability for this scale at age 17/18 of GUI was $\alpha = .82$.

G7 Ten Item Personality Inventory

Personality includes one's motives, thoughts, feelings and behavioural tendencies (McCrae & John, 1992). The Big Five framework, one of the most widely used and extensively researched models of personality, suggests that individual differences in personality can be classified into five broad,



empirically derived domains: Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. Personality has been widely studied due to its relationship to a number of positive and negative outcomes. Personality has consistently been demonstrated in the literature to be related to mental health; in particular, it has been shown that high neuroticism and low conscientiousness are associated with depression, anxiety and substance abuse. Low extraversion is also associated with social phobia and depression (Kotov et al, 2010). Prosocial behaviour is strongly related to high agreeableness and conscientiousness (Kanacri et al, 2014; Carlo et al, 2005). Aspects of personality are also linked to temperament as a young child (Caspi & Silva, 1995), as measured in earlier waves of **Growing Up in Ireland**.

Measure

Personality was measured using the Ten Item Personality Inventory (TIPI). This was the same measure used at age 13 to measure personality, when the scale was completed by Parent One and Two about the Young Person. At this stage of the study, the Young Person also completed the scale to provide both an external and self-assessed measure of the Young Person's personality and also to check for consistency.

The TIPI is a ten-item scale measuring the five aspects of personality: Openness to Experience, Agreeableness, Conscientiousness, Extraversion and Neuroticism. Each personality dimension consists of two statements with two descriptors for each. For example, in the case of extraversion: (a) extroverted, enthusiastic (b) reserved, quiet. Both responses are then combined (using reverse scoring where necessary) and divided by two to reveal the score for that measure. Each of the ten items was rated on a seven-point scale, with answer categories ranging from disagree strongly to agree strongly.

Psychometric Information

This measure of the Big-Five personality is the favoured approach in a study such as **Growing Up in Ireland** as, while it may be inferior to the standard multi-item instrument, it is extremely brief and has been recommended by Gosling et al (2003) as an appropriate measure when personality is not the main topic of interest. Gosling et al (2003) noted the scale has good test-retest reliability ($r = .72$). The authors also report convergent correlations between the TIPI and the Big Five Inventory (BFI) (John & Srivastava, 1999) of .87, .70, .75, .81, .65 for Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experience. Although alpha values for this measure are lower than desirable (alphas of .68, .40, .50, .73, .45 for Extraversion, Agreeableness, Conscientiousness, Emotional Stability and Openness to Experience), the measure was not designed with internal consistency in mind as it was developed to measure very broad domains, with only two items per domain (Gosling et al, 2003). The alpha values at age 17/18 of **Growing Up in Ireland** were .57, .23, .42, .61, .32 for Extraversion, Agreeableness, Consciousness, Emotional stability and Openness to Experience. With such a small number of items in each dimension, other researchers have pointed out that the use of alphas is often misleading (e.g. Woods & Hampson, 2005). The results of the **Growing Up in Ireland** pilot study indicated that Conscientiousness was associated with lower levels of problem



drinking and that Agreeableness was negatively associated with anti-social behaviour, providing evidence of construct validity (Williams et al., forthcoming).

7.2.8 SECTION H: WORK HISTORY

Section H was only asked of individuals who have left education. This section collected information on the Young Person's employment status and occupation.

H1-H9 Principal economic status

Questions H1-H9 were only asked of individuals who have left school and have had a job. Information recorded includes details on their most recent job, number of hours worked and gross/net income (H3-H7). The respondent was also asked if they have ever been unemployed since leaving school and if so, how many spells of unemployment they have experienced and the length of time that they were unemployed in total. This information was recorded to contribute to the social-class classification of the household and also to investigate the employment trajectories of young people in Ireland.

H10 Satisfaction with job

Job satisfaction is the degree to which an individual is satisfied with their job. Job satisfaction is important as it impacts on the individual's job performance and commitment, and also on general well-being (Sharma, et al., 2017). Question H10 asked the Young Person to rate how well they liked their job from 1 not at all to 10 very much.

7.2.9 SECTION J: ACTIVITIES

J1 Group Membership

Adolescent participation in teams and clubs is important for the development of specific skills and social competencies, and fosters a sense of belonging (Hancock, Dyk & Jones, 2012). Research has documented the positive impact of engagement in extracurricular activities, including improved academic performance, reduced school dropout, increased self-esteem and reduced delinquency (Bartko & Eccles, 2003). Question J1 asked the Young Person to indicate what, if any, teams or clubs they were involved in.

J2-J4 Allowance

For some young people, particularly during the school years, receiving an allowance from parents is important as young people do not have a source of income (Johnson, 2013). However, receiving an allowance in later adolescence is associated with an increased risk of drinking alcohol (Bellis et al, 2007) and smoking cigarettes (Scragg, Laugesen & Robinson, 2002). Furthermore, the sooner young people become financially independent from their parents, the more quickly they mature (Furstenberg et al, 2003; Johnson & Molborn, 2009).

Questions J2-J3 asked the Young Person if they receive an allowance from a parent or other relative. Question J4 recorded how much money the Young Person received in a typical month.



J5 Social Welfare

The Young Person was asked if they are in receipt of any social welfare payments and if so, what these payments are and how much they receive each month (J5). This information will supplement the estimate of the household's total social welfare dependency. This information can also be compared to the information gathered on welfare dependency at previous waves of the study, to establish if there are intergenerational patterns.

J6 Leisure activities

Leisure activities are important for adolescents' psychological wellbeing, for the development of new skills, and for the formation of social relationships (Trainor et al, 2010). The World Health Organization emphasises the importance of leisure-time activities (WHO, 2002), seeing participation in varied forms of activity as giving young people opportunities for self-expression, feelings of autonomy and achievement. Engagement in leisure activities can also help young people to adopt healthy behaviours, including the avoidance of tobacco, alcohol, drugs and aggression (WHO, 2002).

Question J6 asked the Young Person what activities they do for fun/to relax and how often they engage in each type of activity.

J7 Driving licence

Question J7 recorded if the Young Person has a full or provisional driving licence for a car/van, scooter/moped/motorcycle or a tractor. Independent access to transport is likely to be particularly important in rural areas.

7.2.10 SECTION K: CITIZENSHIP, IDENTITY AND CIVIC PARTICIPATION

This section contained a wide range of questions related to the Young Person's identity, their attitudes to other people and to state institutions, and their religious beliefs.

K1 Trust in other people

Trust in other people is important for effective and smooth-functioning relationships (Twenge, Campbell & Carter, 2014). Question K1 asked the Young Person to rate how much they trust other people from 1 you can't be too careful to 10 most people can be trusted.

K2 Trust in State institutions

Trust in State institutions is important for the success of many government policies, programmes and regulations that depend on the cooperation and compliance of citizens. In Ireland, trust in many state institutions is dwindling, reflecting the impact of scandals within the Catholic Church and political crises (Edelman Trust Barometer, 2017). As with adults, trust among young people is associated with more active involvement in political and civic action (Fahmy, 2006) while low levels of trust are associated with lower rates of social participation and ultimately social exclusion (Alfieri et al., 2015).



Question K2 asked the Young Person to rate how much confidence they have in State institutions from 1 a great deal to 4 none at all.

K3 Volunteering

Volunteering has long been recognised for its significant influence on Irish society and for the important role it plays in the creation of social capital, a more inclusive society, more active citizens and an improved sense of community (National Youth Council of Ireland, 2011). Volunteering can have a very positive impact on adolescents, through skills development, career-related benefits, and gaining new experiences (National Youth Council of Ireland, 2011). Furthermore, volunteer work has been found to influence well-being, with individuals who volunteer being happier, more satisfied with life, having higher self-esteem and better general health (Thoits & Hewitt, 2001).

Question K3a asked the Young Person if they regularly volunteered with any organisation. If so, they were asked to describe the nature of this volunteer work and how many hours per month they spent volunteering (K3b-K3c).

K4 Social media

Social media sites, such as Facebook and Twitter, have rapidly become an important part of young people's lives. Young people are not just influenced by their digital world; they are the creators—interactively constructing and altering their identities; establishing and maintaining relationships; as well as challenging and transforming cultural norms (Michikyan & Suarez-Orozco, 2016). However, commentators have expressed concern regarding the use of social media, with frequent use being associated with increased risk of depression, self-esteem and anxiety (Woods & Scott, 2016; Vogel et al., 2014).

Question K4 asked the Young Person about their online presence.

K5 Religion

This question collected information on the religious denomination of the Young Person and how frequently they attend religious services. These questions should provide important demographic information in an increasingly secular society. Information collected is also important to investigate adolescents' religious beliefs as it is a time that many young people question their faith (Regnerus and Uecker 2006)

K6 Spirituality

Spirituality is a broader concept than religious affiliation and reflects the search for meaning. Research suggests that more spiritual adolescents are better able to cope with adverse life events and in general have better psychological well-being (Kim & Esquivel, 2011).

Question K6 asked the Young Person if they would describe themselves as a spiritual person.



K7 Citizenship

Information was recorded on the Young Person's citizenship. While this information about them was previously recorded from their parents, this gives the young person the opportunity to make their own declaration.

7.2.11 SECTION L: NEIGHBOURHOOD

L1 Length of time living in local area

This question asked the Young Person to specify how long they have been living in their local area. This question was asked of Parent One at the previous two waves of the study. Such information is important in linking information collected in earlier waves on location and neighbourhood characteristics to later outcomes.

L2 Intention to continue living in Ireland

This question asked whether the respondent intended to continue living in Ireland. The information will also be used for sample retention and tracing purposes. It is of significant research and policy interest given the role of emigration in the pathways of young people in Ireland. *Growing Up in Ireland* will therefore yield new information on the groups of young people who are likely to emigrate at a later stage, with later waves examining the extent to which actual emigration was anticipated or not.

L3&L4 Satisfaction with and perception of the local area

There is increasing recognition that the social ecology and structure of the neighbourhood matter for children's health and wellbeing (Roux & Mair, 2010). Researchers have found that children and adolescents do better socially, emotionally and in behavioural terms when they view their neighbourhood as safe (Martin-Storey & Crosnoe, 2014). In contrast, Boardman & Saint-Onge (2005) found that certain neighbourhood characteristics provide opportunities for adolescents to engage in acts of delinquency, experiment with drugs and alcohol, and increase the risk of teenage pregnancy.

Questions L3-L4 asked about the extent to which the respondent agreed with a series of statements about their local area on a four-point Likert scale, ranging from very common to not at all common or strongly agree to strongly disagree. These replicated the questions asked of Parent One in earlier waves and related to the perceived incidence of problems (such as vandalism, drug-taking, graffiti etc.) in the local area, whether the area was considered safe, the perceived adequacy of local facilities and whether there were family members living locally.

7.2.12 SECTION M: YOUNG PERSON'S HEALTH

Section M included questions on the Young Person's physical health, long-lasting conditions or difficulties, access to health care and stressful life events.



M1 General Health Status

In general, most adolescents are considered healthy as defined by traditional measures of health status such as mortality rates and incidence of disease. However, adolescence is a period of both risk and opportunity. Adolescents may take risks that can jeopardize their health or they can create a strong foundation for healthy lifestyles and behaviours in later life (Lawrence, Appleton-Gootman & Sim, 2009). Mokdad et al (2004) have shown that half of deaths among adults are due to health-related behaviours that have their onset during adolescence.

Self-rated health is a valid and reliable indicator of objectively obtained measures of health status and is the most widely used comprehensive health measurement by the World Health Organisation (Jürges, Avendano, & Mackenbach, 2008). The item used in *Growing Up in Ireland*, derived from the Short Form Health Survey, serves as an outcome measure of general health status, with responses on a five-point Likert scale ranging from excellent to poor. The data will allow the researcher to look at correlates of health status in adolescents.

M2-M6 Chronic physical or mental health problems, illness or disability

Chronic diseases are long-term conditions, lasting more than 6 months, are non-communicable and may involve some functional impairment or disability. Examples include diabetes, cancer, musculoskeletal conditions, mental disorders, asthma, and so on. Chronic diseases are the leading cause of death and morbidity in developed countries (Department of Health, 2008). In Ireland approximately 38% of the population have a chronic disease.

Question M2 in *Growing Up in Ireland* asked the participant if they had any on-going physical or mental health problem, illness or disability. This is a very broad question which could include a wide range of illnesses and disabilities.

Chronic conditions affect young people in different ways. Young people with chronic conditions often face more difficulties negotiating the tasks of adolescence in comparison to their healthy peers. While most young people with a chronic condition cope well with the emotional aspect of the illness, they tend to have lower levels of psychological well-being (Yeo & Sawyer, 2005). Furthermore, young people with chronic conditions often report a sense of alienation from their peers due to the requirements of managing their condition and also because they may be unable to participate in recreational and sporting activities (Yeo & Sawyer, 2005).

Questions M2-M6, derived from the European Community Household Panel (ECHP/Living in Ireland Survey 1994-2001), explored the nature, duration, diagnosis and impact of illness/disability on the Young Person.

M7 Number of nights spent in Hospital

Higher use of secondary health care, particularly the number of nights spent in hospital, is a marker for ill-health.



Question M7 recorded the number of nights the Young Person had spent in hospital in the last year. The number of nights spent in hospital serves as an objective indicator of the Young Person's health in comparison to question M1 which is a more subjective health measure. This will also add to the information on nights spent in hospital collected at the previous two waves of the study in order to give a longitudinal perspective on the health of the Young Person and whether more time in hospital is linked to poorer health and other outcomes for the Young Person (for example, educational and social outcomes).

M8 Frequency of contact with healthcare professionals

The importance of private health care and the extent of fee-paying in Irish healthcare have led some to argue that the system is not available to all on the basis of need alone but rather personal circumstances determine the availability, extent of and speed of treatment (Layte & Nolan, 2004).

Question M8 was originally adapted from the National Longitudinal Survey of Children and Youth and recorded how often the Young Person used healthcare services in the past year, including GP and other professional services. The data will allow researchers to look at the types of healthcare services used most frequently by young people and to determine whether there are socio-economic differences in healthcare utilisation.

M9 Life events

Question M9 listed a number of life events (such as serious illness/ injury of a family member) and asked the Young Person to indicate any that they have experienced since the last interview. Similar, but not identical, questions were asked of parents at earlier waves. There are also additional questions on more sensitive life events in the Young Person self-complete module. Adverse life events and experiences during childhood and adolescence have been found to be predictive of a range of outcomes, including physical and mental health as well as behavioural and substance abuse problems (Chapman et al., 2004).

7.2.13 SECTION N: DIET, EXERCISE AND SLEEP

Section N focused on the Young Person's dietary profile and diet, use of supplements, exercise, time spent outdoors and sleeping patterns.

N1 Young Person's dietary profile

The adapted food frequency questionnaire (N1) was designed to obtain information on the Young Person's dietary intake over a 24-hour period. Some of the items were derived from Growing Up in Australia, which were in turn adapted from the Sallis' Amherst Food Frequency Questionnaire (2001); other items were added following consultation with the expert panel set up by the *Growing Up in Ireland* study team. This will provide a semi-quantitative measure of the Young Person's dietary intake along a number of dimensions: fruit and vegetable consumption, protein, carbohydrates, calcium, fats, and sugars. This is of interest in terms of general health and because Ireland has the highest rate of



obesity and excess weight in Europe (WHO, 2013). Studies suggest that the mismatch between energy intake and energy expenditure is a major contributory factor (Livingstone, 2001).

N2 Number of cups of tea and coffee

Tea and coffee intake in adolescence is of concern due to the health impacts. The Mayo Clinic state that up to 400mg (4 cups of coffee) of caffeine a day is safe for adults but in adolescence dietary doses of caffeine have the potential to increase latency to sleep (Landolt, 2008); this in turn increases the likelihood of daytime sleepiness which has been found to impact on academic performance (James et al, 2011). Heavy caffeine use is considered more than 500-600mg a day and can have adverse side effects on health, such as high blood pressure, anxiety, gastrointestinal disturbances and tremors (Mayo Clinic, 2017).

Question N2 recorded the number of cups of tea and coffee the Young Person consumes on a daily basis.

N3 Eating Breakfast

Eating breakfast is important for a number of reasons. Breakfast skipping is a major risk factor for weight gain and obesity because people who skip breakfast also tend to snack more frequently and eat high-fat snacks in comparison to breakfast consumers (Shaw, 1998; Keski-Rahkonen et al, 2003). Snacking during the day does not compensate for missing breakfast; as a result, young people who skip breakfast have a lower total energy intake and thus have been found to be inattentive and apathetic in school (Shaw, 1998).

Question N3 asked the Young Person how many days per week they eat breakfast.

N4 Eating take away food

Eating out of home may not have the same nutritional content as eating at home. Adolescents tend to eat take-away foods more frequently than those in other age groups. Foods eaten out of home tend to be higher in fat, and lower in micro-nutrients, in particular, vitamin C (Lachat et al, 2012). Question N4 asked the Young Person to rate how frequently they eat out in a restaurant/café or get a take away on a five point scale from 1 several times a week to 5 rarely/never.

N5 Vegetarian diet

Vegetarianism is becoming an increasingly popular lifestyle choice among young people (Dunham & Kollar, 2006). Young adults decide to become a vegetarian for a number of reasons such as animal rights, environmental concerns and health benefits. Studies have shown that children and adolescents who follow a vegetarian diet have a lower intake of saturated fat, and a higher intake of fruit, vegetables, and fibre than their non-vegetarian counterparts (Dunham, & Kollar, 2006).

Question N5 asked the Young Person if they follow any kind of vegetarian or vegan diet.



N6 Supplements

The dietary supplement industry is now a multi-billion dollar industry (Dorsch & Bell, 2005). The prevalence rate for supplement use is observed to be increasing in adolescents and the population in general (Dorsch & Bell, 2005). The most commonly cited reasons for usage are: to maintain or improve health, to increase energy, to build muscle or increase weight, to increase athletic ability, to help heal injury or illness, or because of an inadequate diet (Dorsch & Bell, 2005). However, there are concerns about the use of dietary supplements when they are not required. For example, anabolic steroid use in adolescence is associated with a range of adverse effects, including increased cholesterol, high blood pressure, thrombosis, depression, and psychosis (Committee on Sports Medicine and Fitness, 1997).

Question N6 listed a number of common supplements and asked the Young Person to record if they used any of them.

N7&N8 Physical exercise

According to the World Health Organisation, young people should be doing at least 60 minutes of moderate to vigorous physical exercise daily. Physical exercise for more than 60 minutes provides additional health benefits. Physical exercise is important for a number of reasons. Obesity is a major public health concern in Ireland. The less active people are, the more at risk they are of being overweight. Regular physical exercise also reduces the risk of chronic diseases, such as coronary heart disease, type 2 diabetes, stroke, cancer, osteoporosis and depression (Department of Health and Children, 2009).

Questions N7 & N8 asked the Young Person to rate how frequently they had engaged in at least 20 minutes of soft/hard exercise in the past 14 days.

N9 Time spent outdoors

Spending time outdoors is important for a number of reasons, especially for the creation of vitamin D. Time spent outdoors has also been associated with mental health benefits, increased exercise and improved concentration (Pearson & Craig, 2014; Berman, Jonides & Kaplan, 2008).

Questions N9a & N9b recorded how much time the Young Person typically spent outdoors during school/work, and on days off.

N10 Skin Type

A person's natural skin colour influences their risk of sun damage, melanoma and non-melanoma skin cancer (Eilers et al, 2013). Skin type was measured at age 17/18 of *Growing Up in Ireland* using the Fitzpatrick skin type classification scale. The Fitzpatrick skin type classification scale, is a six item measure which classifies skin type from 1 (high risk) to 6 (low risk). It considers skin colour (i.e. pale white to black), and how the skin reacts to sunlight (i.e. whether it burns easily, or tans). People with pale skin, that burns easily and never tan are categorised as having 'skin type 1' (high risk). Those with



black skin which darkens easily when exposed to sunlight and rarely if ever burns are categorised as having 'skin type 6' (low risk). Despite the temperate climate, rates of skin cancer in Ireland are relatively high. This information will allow researchers to assess the role of time spent outdoors and skin type along with other factors in the later development of melanoma.

Vitamin D

Questions N9-N10 (see above) record information which could be used to investigate Vitamin D deficiency. There is a clearly established relationship between exposure to UVB (which is the main source of vitamin D) and serum levels. This means that UVB exposure can serve as a reliable proxy of vitamin D level. Vitamin D deficiency is an extremely important topic in public health and clinical medicine, because of its associations to a wide range of health issues, including bone health, obesity, autoimmune illnesses and depression.

N11-N17 Sleeping patterns

Adequate sleep is essential for good health and optimal physical and cognitive performance (Dewald et al, 2010). Adolescent sleep health is becoming increasingly recognized internationally as a significant concern, with many countries reporting high incidences of sleep disturbance in young people (Gradisar, Gardner & Dohnt, 2011). Sleep problems in adolescence are a significant predictor of sleep disturbance in later life (Dregan & Armstrong, 2010).

Adolescents frequently practice unhealthy sleeping behaviours (i.e. poor sleep hygiene) which may contribute to the sleep problems experienced by adolescents. Adolescents are prone to having electronic devices in their bedrooms and to using these devices late at night (Owens, 2014). Numerous studies have shown that the use of electronic devices prior to bed disrupts sleep (Hysing et al, 2015). For example, Owen (2014) proposed the light produced by electronic devices may disrupt circadian rhythms (the body's internal clock which regulates sleepiness and alertness) by suppressing melatonin (the hormone that helps control the sleep cycle), resulting in the inability to fall asleep at a reasonable time.

From a policy perspective, sleep problems may impact on wider society. Sleepiness is associated with lapses in attention and delayed responses at critical moments such as while driving. It is estimated that sleepiness contributes to 1 in 5 road deaths in Ireland (Road Safety Authority, 2014). Furthermore, lack of sleep has a number of implications for health, such as the likelihood of stimulant use, obesity, and depression (Owens, 2014).

Questions N11-N17 recorded details the Young Person's sleeping patterns, in particular, how many hours the Young Person usually sleeps, if they share a room, have any specific sleep difficulties and the activities that they do before bed. This information will allow the identification of risk factors in poor sleep patterns and the consequences of sleep difficulties for educational and socio-emotional outcomes.



7.2.14 SECTION O: DENTAL HEALTH

This section focuses on the dental health of the Young Person.

O1-O5 Dental Health

Despite a reduction in the prevalence of dental caries in Ireland, three quarters of all 16 year olds have experienced decay in their teeth (Whelton et al, 2002). The North South Survey of Children's Oral Health (Dept of Health & Children, 2006) points to social class differences in oral health, with individuals from deprived backgrounds experiencing more decay than individuals from more affluent backgrounds (in Nunn, 2006). Tooth decay in children and youth is of concern because it is painful, it may impact on self-esteem and physical appearance, and treatment in serious cases may require sedation or general anaesthetic (Irish Oral Health Services Guideline Initiative, 2009). The long-term effects of poor oral health are also very serious. Poor oral health is linked to acute and chronic disease such as cardiovascular disease, diabetes, cancer, and chronic obstructive pulmonary disease (Humphrey, et al., 2008).

Questions O1-O5 asked the Young Person about their dental health, in particular, how they rate their oral health, how often they brush their teeth, how regularly they visit the dentist, and if they have ever had to undergo any orthodontic treatment. This will provide useful information from a public health perspective, identifying the use of dental health services and any potential social inequalities in such use.

7.3 YOUNG PERSON SELF-COMPLETE

The Young Person Self-Complete questionnaire was completed by the Young Person on a CASI basis. The Young Person Self-Complete questionnaire covered more sensitive issues than the Young Person Main Questionnaire, pertaining to smoking, alcohol and drug use, as well as delinquent behaviours, sex and relationships, and mental health. The content of the questionnaire, rationale and the measures used are detailed below. The Young Person Self-Complete Questionnaire can be found in Appendix 9.

X1 & X2 Gender and date of birth

Section A Peer relationships

This section tapped into friendship networks. It included details on number of friends, close friends and the Young Adult's perceived experience of different forms of discrimination.

A1-A3 Peer relationships

During adolescence, young people become less dependent on their parents and increasingly spend more time with their peers (Spithoven et al, 2017). Adolescents have been found to place greater emphasis on the expectations and opinions of their peers, and the influence of peers on adolescent attitudes and behaviours can be as great as, if not greater than, that of parents: for example, in relation



to substance use, academic achievement, prosocial behaviour, and mental health (Poulin, 2011; Gremmen et al, 2017; Ueno, 2005).

Questions A1-A3 asked the Young Person questions about their friendship group, including the number, age and ethnicity of friends and the number of friends that their parents have met.

A4-A6 Everyday Discrimination Scale

Discrimination in any form can be extremely distressing for the individual on the receiving end. Recent research has shown that there is a link between self-reported experiences of discrimination and negative physical and mental health outcomes (Lewis et al, 2012). In Ireland, many minority groups report experiencing discrimination, including Travellers (Kenny & McNeela, 2007), individuals with disabilities (National Disability Authority, 2011) and immigrants (Kennedy, 2013). The Everyday Discrimination scale was included at age 17/18 of *Growing Up in Ireland* to investigate if and why young people in Ireland experience discrimination.

The Everyday Discrimination Scale was a 5-item measure asking participants to indicate how frequently they feel they have experienced various forms of interpersonal mistreatment in their day-to-day lives, assessed on a six-point scale (1=almost every day, 2= At least once a week, 3= a few times a month, 4= a few times a year, 5=less than once a year, 6= never). This scale was subsequently reverse coded for scoring. Examples of items in the scale include: “You are treated with less courtesy than other people” and “You receive poorer service than other people at restaurants or stores”. Follow-up questions were asked of respondents who answered ‘a few times a year’ or more to ascertain what they thought was the main reason for the experience; they are presented with a list of possible reasons which included race, age, gender, religion, height, weight. A question was also asked from whom they experienced this discrimination, including teachers, Gardaí etc. (A6).

Psychometric information

This 5-item scale was adapted from the original 9-item version of the Everyday Discrimination Scale (Williams, Yu, Jackson, & Anderson, 1997), which demonstrated good reliability and validity (e.g. Bernstein et al., 2011). Stucky et al. (2011) found that a shortened version of the EDS retained strong psychometric properties; good reliability (0.84) was found with an African American sample of law students (N = 589) and with a more representative sample of African Americans (0.82) (N = 3,570), obtained as a subsample of the National Survey of American Life (Pennell et al., 2004). The scale was found to have good internal reliability at age 17/18 of *Growing Up in Ireland* with $\alpha = .74$. As well as allowing analyses of the factors associated with experience of discrimination, the information can be used to examine the potential impact of discrimination on later outcomes.

A7 Inventory of Parent and Peer Attachment (IPPA)

Attachment is an enduring affectional bond of substantial intensity (Bowlby, 1969). Children form an attachment bond with their parents in early life which is strongly related to the quality of the child’s peer relationships in later life (Armsden & Greenberg, 1987; Armsden, 1986). Securely attached



individuals are more likely to form harmonious, intimate and positive friendships compared to those who are insecurely attached (Bauminger et al, 2008). Peer attachment is also important to study as it is correlated with self-esteem, life-satisfaction and psychological adjustment (Armsden & Greenberg, 1987; Armsden, 1986).

The Inventory of Parent and Peer Attachment (IPPA) (Armsden and Greenberg, 1987) was developed in order to assess adolescents' perceptions of the positive and negative affective/cognitive dimensions of relationships with their parents and close friends – and particularly how well these figures serve as sources of psychological security. The theoretical framework behind the scale is attachment theory, originally formulated by Bowlby and subsequently further developed by others. The scale that was included at age 17/18 of *Growing Up in Ireland* focused on peer attachment. The scale comprised of 25 items measured on a five point scale from 1 almost never or never true to 5 almost always or always true. The scale measured three broad dimensions of attachment: degree of mutual trust; quality of communication; and extent of anger and alienation.

Psychometric Information

The Inventory of Parent and Peer attachment is a valid and reliable measure of the perceived quality of close relationships in adolescence (Armsden and Greenberg, 1987). The internal reliability for the three subscales, as investigated by Armsden and Greenberg (1987), were communication ($\alpha=.88$) trust ($\alpha=.91$) and alienation ($\alpha=.73$). The three subscales were found to have good internal reliability at age 17/18 of *Growing Up in Ireland*; communication ($\alpha=.88$) trust ($\alpha=.91$) and alienation ($\alpha=.72$).

Section B Health Risk Behaviours

This section looked at adolescent health risk behaviours, including smoking, alcohol consumption and drug use.

B1 Smoking

While considerable progress has been made in reducing the number of people who smoke in Ireland, smoking still remains relatively high among young adults (Healthy Ireland, 2016). Those who begin smoking during adolescence are far more likely to smoke in later life (Saddleson et al, 2016). Smoking is of concern in young adults due to the health implications (Johnson & Richter, 2002). Tobacco use is one of the chief preventable causes of death in the world. Tobacco kills more than 7 million (1 million of which is a result of exposure to second-hand smoke) people worldwide each year and is the leading cause of cancer. Furthermore, smoking is associated with other health risk behaviours such as alcohol misuse, drug use and deviant behaviour (Costello et al, 2009).

The Young Person was asked whether or not they had ever smoked a cigarette, and if so, what age they were when they commenced smoking, how often they smoke, how many cigarettes they smoke in an average week and had they ever tried to give up smoking but could not. Similar questions were



also asked at the second wave (age 13) of *Growing Up in Ireland*; this information will enable researchers to track patterns of smoking among young people.

B2&B3 E-cigarettes

E-cigarettes are battery-powered smoking devices that emit doses of vaporised nicotine. There has been an increase in recent years in the number of adolescents and young adults using e-cigarettes (Grana, Benowitz & Glantz, 2014). However, as e-cigarettes are relatively new to the market, the long-term positive and negative health impacts are yet to be assessed. There is some evidence to suggest that they may have harmful effects on health and increase the risk of indoor air pollution, though the evidence is not conclusive (Yamin, Bitton & Bates, 2010).

Questions B2 & B3 asked the Young Person whether they had ever tried an e-cigarette and if they think they are '1' more harmful '2' equally harmful or '3' less harmful than cigarettes.

B4-B6 Alcohol consumption

Alcohol consumption is the third highest risk factor for premature death and ill-health in the European Union. In the UK, alcohol is the leading cause of death among people aged 15 to 49 (Public Health England, 2016). Alcohol consumption is associated with a range of negative health and social outcomes. Strong relationships have been observed between alcohol consumption and numerous illnesses and conditions, in particular, cancers of the oral cavity and pharynx, liver cirrhosis, coronary heart disease, mental health problems and suicidal ideation (Corrao et al, 2004; Bagnardi et al, 2001). Furthermore, alcohol consumption is linked to injuries, accidents, violence, and public safety issues (Hope, 2014).

Research consistently shows that alcohol consumption is greatest when young adults are in their late teens and early twenties (Kuntsche & Gmel, 2013). Alcohol consumption during this period is of concern because the brain is still developing and it has been found that excessive drinking may lead to lifelong impairments in brain functioning, in relation to memory, impulse control, motor skills and co-ordination (Hiller-Sturmhofel & Swartzwelder, 2004). Binge drinking (heavy alcohol consumption over a short period of time) has been evident among Irish teenagers (Dooley & Fitzgerald, 2012) and is of concern because it is associated with increased risk of alcohol dependence, crime and violence, and risky sexual behaviour (Guo et al, 2002; Chassin, Pitts, & Prost, 2002; Hill et al, 2000).

Alcohol consumption is important to investigate at age 17/18 of *Growing Up in Ireland* to establish the frequency of problem drinking among young people. The information can also be used to investigate longitudinally key predictors of problem drinking in adolescence, and whether the early onset of drinking has an impact on outcomes in later adolescence.

AUDIT

Alcohol consumption of participants will be measured using the AUDIT. The AUDIT (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001) is a 10-item screening tool developed by the World Health



Organisation (WHO) to determine if a person's alcohol consumption may be harmful. Questions 1–3 deal with alcohol consumption, 4–6 relate to alcohol dependence and 7–10 consider alcohol-related problems. Responses to questions 1-8 are reported on a 5-point scale while questions 9 and 10 are on a 3-point scale. Scores can be used to indicate the likelihood of hazardous or harmful alcohol consumption, and alcohol dependence. A score of 20 or more is suggestive of alcohol dependence (although some authors quote scores of more than 13 in women and 15 in men as indicating likely dependence), and scores of 8 or more have been used to indicate a strong likelihood of harmful alcohol consumption (Cassidy, Schmitz, & Malla, 2008). WHO proposes the following interpretation of AUDIT scores in an intervention context: scores 8-15 warrant advice on the reduction of hazardous drinking; scores 16-19 suggest counselling and monitoring and scores above 20 warrant further diagnostic evaluation and intervention for alcohol dependence.

Psychometric information

The AUDIT has good validity and correlates with other self-report alcohol-use measures, e.g. the CAGE alcohol screening measure (Hays, Merz, & Nicholas, 1995). It demonstrated good reliability (0.83) among 832 hazardous drinkers (Hays et al., 1995) and also in a sample comprised of non-hazardous drinkers, cocaine users, and alcoholics (0.86) (Sinclair, McRee & Babor, 1992). The internal consistency for the AUDIT at age 17/18 of GUI was $\alpha = .76$.

B7-B11 Drug use

Drug use among Irish adolescents has reached worrying levels, with the drug use of young people in Ireland among the highest in Europe (European Monitoring Centre for Drugs and Drug Addiction, 2017). The consequences of illegal drug use include physical health problems, such as kidney, liver and heart damage, loss of memory and concentration, the transmission of viruses through sharing needles, as well as psychological and physical addiction (European Monitoring Centre for Drugs and Drug Addiction, 2017). There is extensive literature on the link between drug use and mental health outcomes in adolescence; cannabis, for example, has been found to trigger acute psychotic episodes where a predisposition exists and may worsen outcomes in established psychosis (Patton et al, 2002). Exposure to drugs in early adolescence has also been linked to substance dependency and crime as the young person progresses into adulthood (Odgers et al, 2008).

Questions B7-B11 recorded details on the Young Person's drug use. Questions B7-B8 asked about frequency of cannabis use, and frequency of inhaling or sniffing glue, aerosols or solvents. In addition, a list of illicit and non-prescribed drugs (e.g. cocaine, heroin, benzodiazepines) was provided and the Young Person was asked if they had ever taken or used any. Similar questions were also asked to the Young Person at age 13. This information will provide details on the prevalence of illicit drug use among young people in Ireland and will allow the researchers to examine longitudinally the impact of drug use on adolescent outcomes, such as education, mental health and anti-social behaviour.



Section C Relationships and Sexuality

This section asked about the Relationship and Sexuality Education programme in school and sources of information on sex and relationships.

C1 Relationships and Sexuality Education

The Relationships and Sexuality Education programme offered in Irish schools is aimed at providing opportunities for pupils to acquire knowledge and understanding of human relationships and sexuality in a way that will make them think in a moral, caring and responsible manner. The Young Person was asked about current and past experience of the programme while at school. This information can be used to assess the potential impact of the programme on sexual behaviour among young people.

C2 Sources of information on sex and relationship issues

Research has highlighted the importance of open communication between parents and children about sex and relationships (Akers, Holland & Bost, 2011). If young people do not have a parent with whom to communicate openly about sex, they are more likely to turn to their peers for information and advice. However, young people who use their friends as a source of information often lack adequate knowledge about safe sex behaviours, such as the prevention of sexually transmitted diseases (Crisis Pregnancy Centre, 2012). Therefore, it is important to establish where young adolescents source their information about sex and relationship issues to determine the impact this has on their sexual behaviours.

Question C2 asked the Young Person whether they had discussed sex and relationship issues with their parent(s)/guardian and where they acquire most of their information and advice on sex and relationship issues.

Section D Sexuality and Sexual Behaviour

This section referred specifically to the Young Person's sexuality and sexual experiences, including the first time s/he had sexual intercourse.

D1 Degree of ease or difficulty talking to parents about sex

Research has shown that adolescents who have more open discussions with parents about sex are more likely to delay sexual initiation and less likely to engage in risky sexual behaviours (Akers et al, 2011). Questions D1a & D1b asked the Young Person what degree of ease or difficulty they had talking to their mother or father about sex, with responses ranging from 1 'very easy' to 6 'never came up'. The information gathered will ascertain if there are differences in the characteristics of parents who are more open with their children about sex and will examine whether parental communication about sex had an impact on the young person's behaviours.

D2-D4 Sexual Orientation & Gender Identity

In recent years, more young people are "coming out" (a process whereby an individual realises they are lesbian, gay, bisexual or transgender (LGBT) and discloses this aspect of their identity to others)



and are living openly with the support of their family and friends. (Glen, 2016). However, despite this acceptance, many young people in the LGBT community suffer victimisation, prejudice and discrimination. In particular, in a recent survey LGBT migrants to Ireland frequently reported issues with mental and physical health, and feelings of social exclusion (Noone, Buggy & Keogh, 2018). As a result, the mental health and well-being of LGBT youths is compromised and many are at risk of mood disorders, anxiety, substance use disorder, and suicidal ideation (Russell & Fish, 2016).

Questions D2-D4 recorded the Young Person's sexual orientation and self-defined gender, including a direct question on transgender identification. This will fill a significant gap in Ireland by providing the first systematic evidence on sexual orientation and its association with other aspects of young people's development.

D5&D6 Past and current relationship status

Romantic relationships are an important marker in adolescent development. Young adolescents have more affiliative, companionate relationships, while older adolescents tend to have more committed, loving and supportive relationships (Meier & Allen, 2009). These romantic relationships can have both a positive and negative impact on adolescent psychosocial development, including on their self-esteem (Furman & Shaffer, 2003). Those who have a positive experience of a romantic relationship may think of themselves as an attractive partner, while those who have a more negative experience may have much less self-confidence (Furman & Shaffer, 2003). Giordano et al (2008) found that romantic relationships in adolescents can influence academic achievement; for example, adolescents who had a romantic partner with higher grades were more likely to earn higher grades themselves.

Question D5 asked the Young Person if they currently had a boyfriend or girlfriend and question D6 asked how many boyfriends and girlfriends the Young Person had in the last year. This information will yield insights into young people's romantic relationships and the association with other aspects of their social lives, including peer relationships.

D7 Sexual Behaviour

The initiation of sexual activity is a milestone for many adolescents on the road to adulthood. Adolescent engagement in sexual activity is on the rise, with over a third of Irish young people initiating sexual intercourse before the legal age of 17 (Gavin et al, 2014). Early sexual activity before the age of 17 is associated with a range of negative outcomes, including unplanned pregnancy (Wellings et al, 2006), sexually transmitted diseases (Kaestle, et al., 2005) and having a greater number of sexual partners (Johnson & Tyler, 2007).

Sexual behaviour was measured using an 11-item scale adapted from the rosenbver, used to measure the spectrum of sexual behaviours typical of adolescents. The original index was developed following prior work showing sexual behaviour to be ordered and progressive and conservative language was used. The items are presented sequentially and there are several points where the section can end, depending on the participant's responses. Examples of items included in the scale were: "Has



someone put their hands under your clothing?”, “Have you put your hands under someone else’s clothing?”. The information will allow researchers to examine the relationship between individual and background factors and patterns of sexual behaviour at 17/18 years of age.

D8& D9 Pressure to have sex

Numerous studies have examined the influence of peer pressure on a range of adolescent outcomes and behaviours. Peer pressure is of concern in relation to adolescent sexual activity as it may influence an individual to engage in intercourse before they feel ready (Santor, Messervey & Kusumakar 2000).

Question D8 asked the Young Person if they felt pressure from friends to have sex. Question D9 asked the Young Person if they were afraid of losing a boyfriend/girlfriend by not having sex. These questions are important to determine how many young people feel pressured to engage in sexual intercourse and the implications for their wellbeing. This is all the more important in a context where there has been public debate about the importance of active consent in sexual relationships as it will provide a useful evidence base for policy intervention and supports.

D10 Number of sexually active friends

Research has found that believing most peers have had sex is associated with intention to have sex, early sexual onset and risky sexual behaviours (Buhi & Goodson, 2007). Question D10 asked the Young Person if they think most of their friends have had sex and can be used to examine peer effects on sexual behaviour as well as on other forms of risk-taking behaviour.

D11-D16 Sexual Intercourse

There is a large body of research which suggests that first sexual intercourse is likely to occur in adolescence. In a study by Drennan, Hyde & Howlett (2009) of Irish adolescent sexual behaviour and knowledge, 35% of Irish adolescents under the age of 17 included in the study had engaged in sexual intercourse. A number of factors have been identified as influential in determining adolescent engagement in sexual intercourse, including socio-economic status, academic performance, religiosity, and parental expectations (Lammers et al, 2000).

Questions D11-D15 recorded details on the Young Person’s first sexual intercourse, including their relationship status with the person involved; whether or not they used any form of contraception; whether or not they experienced regret following the encounter; and if they are still in an intimate relationship with the person in question. A further question was also asked about the number of people in total with whom the Young Person has had sexual intercourse (D16). This information will provide details on the sexual practices of young people in Ireland and how they may vary according to the source of information on sex (family and school) as well as peer and neighbourhood characteristics. Furthermore, from a longitudinal perspective, this information can be used to explore the impact of early sexual behaviour as young people progress into adulthood.



D17-D20 Use of Contraception and Sexually Transmitted Diseases

Engagement in risky sexual behaviour (without use of condoms and oral contraception) puts young people at risk of sexually transmitted infections and unwanted pregnancy. Research has shown that individuals make decisions about their use of contraception based on the nature of their relationship with their partner. Adolescents who have sex with a non-romantic partner are less likely to use condoms or other contraceptive methods (Ford, et al., 2001). From a policy perspective, adolescent use of contraception is of concern due to the increase in sexually transmitted infections. The Health Protection Surveillance Centre reported that in 2016 there was a sharp increase in the incidence of sexually transmitted diseases among young people aged 15-24 in Ireland (HPSC, 2016). However, there is a lack of information on the characteristics of these young people, a lacuna which limits the potential to target those at risk.

Questions D17-D20 asked the Young Person about their use of contraception, including whether or not they use condoms, whose decision it was to use contraception and whether or not they have ever had a sexually transmitted disease.

Section E Pregnancy

Early engagement in sexual intercourse is associated with a greatly-increased risk of experiencing a crisis pregnancy. Teenage pregnancy and resulting births pose many personal and societal challenges, including early school leaving, poorer academic achievement, social isolation, economic disadvantage, and increased welfare dependency (Irvine et al, 1997).

Question E1 asked the Young Person if they have any children. Questions E2 & E3 were only asked of females and recorded whether the respondent was currently pregnant or had ever been pregnant. This information may be used by researchers to look at the predictors of adolescent parenthood and the impact of early parenthood on physical, emotional and educational outcomes.

Section F Physical Health

This section added to the information previously gathered on the Young Person's health and asked further questions about weight perception and disordered eating.

F1 & F2 Access or difficulties with access to medical care

While adolescents in general are the healthiest group in the population, they experience the most inequalities in access to health care (National Youth Council of Ireland, 2014).

Questions F1 & F2 asked the Young Person about perceived barriers to health care access.

F3 & F4 Perception of weight and dieting behaviour

Concern about weight and shape is extremely common during the adolescent years. Many females engage in dieting behaviour to conform to society's standards of thinness or because of poor body image. Dieting behaviour is on the increase in males also. However, unlike females, males are not



focused on attaining a thin physique but rather are driven to become more muscular (Brunet et al, 2010).

Dieting behaviours in men and women are of concern because young people often restrict their intake of certain foods/nutrients which are important during adolescence for healthy development (Canadian Paediatric Society, 2004). Dieting may also be a precursor for eating disorders.

Question F3 asked the Young Person about their perception of their weight, with responses ranging from very skinny to very overweight. Question F4 asked the Young adult about their engagement in dieting behaviour. This can be used by researchers to explore the predictors of being under/overweight and the drivers and consequences of dieting behaviour.

F5 Eating disorder screening for primary care

Disturbed body image and concerns with weight are not uncommon among young adults, with 1-2% of young adults suffering from eating disorders (Treasure, Claudio & Zucker, 2010). Eating disorders have a huge impact on the individuals themselves and also on the person's family. The medical consequences of eating disorders can be irreversible and have serious health consequences in later life, especially in relation to the reproductive (infertility) and skeletal system (early onset of osteoporosis) (Treasure et al, 2010). While eating disorders occur most frequently in females, they are becoming increasingly common in males (Thompson, 2017). The development of effective interventions in Ireland requires information on the profile of those with eating disorders and the potential individual and background factors associated with the onset of the disorder.

Prevalence of eating disorders was measured using the Eating Disorder Screen for Primary Care. The screening measure consists of five statements which professionals use to screen for eating disorders. Respondents provide yes/no answers to questions such as 'does your weight affect the way you feel about yourself?'. A cut-off of two or more 'abnormal' answers to the five questions is suggestive of an eating disorder (Cotton, Ball & Robinson, 2003).

Section G Self-esteem, life events and attitudes

The measures in Section G were aimed at ascertaining the young person's view of themselves, their self-esteem, and locus of control. At this wave the Young Person was also asked about their experience of adverse life events.

G1 Rosenberg Self-Esteem Scale

Global self-esteem refers to the general value that a person places on him- or herself and should be distinguished from appraisals of specific traits or abilities (such as academic self-concept). Researchers across a range of disciplines have highlighted the impact of global self-esteem on motivation, career aspirations, educational success, job satisfaction, and mental and physical health (e.g., Baumeister, Campbell, Krueger, & Vohs, 2003). Because of its apparent connection to many important outcomes, global self-esteem is one of the most extensively studied attribute.



Self-esteem was measured using the Rosenberg Self-Esteem scale (Rosenberg, 1965). The RSE is the most commonly used and well-validated measure of global self-esteem (Robins, Hendin & Trzesniewski, 2001). The original ten item Rosenberg Self-Esteem scale was reduced to six items rated on a 4-point scale ranging from 1 (strongly agree) to 4 (strongly disagree). This was subsequently recoded for scoring purposes.

Psychometric information

The scale was originally designed to measure the self-esteem of high school students; however, since its development the scale has been successfully used with a variety of groups, including adults. The RSE has good concurrent validity with other measures of self-esteem, such as the Coopersmith Self-Esteem Inventory and Harter's Self-Perception Profile for Adolescents (Hagborg, 1993). The measure also demonstrates good internal consistency (0.88) (Roth, Decker Herzberg, & Brähler, 2008) and $\alpha=.73$ (age 17/18 years **Growing Up in Ireland**).

G2 Self-control

Self-control is the ability to regulate one's emotions, thoughts and behaviours in the face of temptations and impulses. In theory, individuals with high self-control are better able to consider the implications of their actions and can adjust their behaviour accordingly. The self-control scale consisted of ten items rated on a 5-point scale from 1 not at all like me to 5 very much like me, with higher scores indicating greater self-control.

Psychometric information

The self-control scale is a reliable and valid measure of self-control. In previous work, the scale showed good internal consistency ($\alpha=.83-.85$) and retest reliability ($\alpha=.87$) (Tangney, Baumeister, & Boone, 2004). Higher scores on self-control are correlated with better educational performance, better adjustment (such as fewer reports of psychopathology and higher self-esteem), less binge eating and alcohol abuse, better relationships and interpersonal skills, secure attachment, and more optimal emotional responses. Low self-control is a significant risk factor for a broad range of personal and interpersonal problems (Tangney et al, 2004). The Cronbach alpha for the scale at age 17/18 of **Growing Up in Ireland** was $\alpha=.61$.

G3 Opposition to Authority

Adolescents vary in their attitudes towards institutional authority, with males more opposed to authority in comparison to females (Banks et al, 1992). In general, adolescents are positive in their views towards authority; however, those who engage in more delinquent behaviours have been found to be more opposed to authority figures, including parents, teachers, police and the legal system (Levy, 2001).

Opposition to authority was measured using an eight-item scale from the UK-based ESRC 16-19 Initiative research programme (Bank et al. 1992). Each item on the Opposition to Authority scale was



measured from 'strongly agree' to 'strongly disagree'; for example, "It can be okay to do something which is against the law if it is to help a friend". In the ESRC 16-19 study, reliabilities were reported to be .56 at Wave 1 and .69 at Wave 2. The Cronbach alpha value for the scale at age 17/18 of **Growing Up in Ireland** was $\alpha = 0.72$.

G4 Self-Efficacy

Self-efficacy theory asserts that the extent to which people feel in control of their actions and outcomes or attribute outcomes to chance or luck is a crucial driver of behavioural change (Sherer et al, 1982). Self-efficacy has been found to be strongly predictive of student motivation and learning (Zimmerman, 2000), job-related performance (Stajkovic & Luthans, 1998) and health-related behaviours (Schwarzer & Renner, 2000).

The self-efficacy scale used in the present study was adapted from Sherer et al.'s (1982) measure by researchers on the ESRC 16-19 Initiative research programme. The adapted version contains 6 items relating to general self-efficacy ('If I can't do a job the first time I keep trying until I can') and social self-efficacy ('I find it easy to make new friends') with four answer categories ranging from 'strongly agree' to 'strongly disagree'. In the ESRC 16-19 study, reliabilities ranged from .60 to .63 over three waves. Internal reliability for this scale at age 17/18 of **Growing Up in Ireland** was $\alpha = .72$.

All of these measures of self-perception can provide an empirical basis for assessing the role of non-cognitive as well as cognitive skills in decision-making around the transition from school and in later integration into employment and adult life.

G5 Adverse life events

Traumatic life events during adolescence can be particularly distressing because, in comparison to children, adolescents have a greater understanding of the implications (Mann et al, 2014). It has been consistently demonstrated in the literature that significant life events have a profound impact on the socio-emotional development of adolescence. However, the impact of traumatic events on adolescent well-being varies depending on the young person's level of resilience and use of coping mechanisms (Kraaij et al, 2003). Problems may not only reflect one-off events but exposure to the cumulative effects of multiple stressors, with cumulative risk leading to greater adjustment difficulties (Appleyard et al, 2005).

As at the previous two waves of the study, a question was included on potentially disturbing and/or traumatic life events. This question was adapted from the National Longitudinal Survey of Children and Youth. The question was previously completed by Parent One at age 9 years and age 13 years. At age 17/18 the Young Person completed the question themselves. Examples of items that were included were: the death of a parent, having sibling in prison, parental arrest, violence etc. Other stressful life events were also asked about the Young Person Main Questionnaire. As discussed above, adverse life events are expected to have significant consequences for later outcomes in early and middle adulthood.



G6 Satisfaction with life

Life satisfaction reflects a global appraisal of contentment with life as a whole (Suldo & Huebner, 2006). Young people who are more satisfied with life have better psychological well-being and are more able to cope with stressful life events (Suldo & Huebner, 2004). Question G6 asked the Young Person to rate their level of satisfaction with life from 0 extremely unsatisfied to 10 extremely satisfied. This information can be used to explore the potential influence of life satisfaction on later socio-emotional and mental health outcomes.

Section H Your Family

This section focused on family relationships, with a main focus on the Young Person's relationship with his or her mother and father.

H1-H8 Network of Relationships Inventory with mother/father

As adolescents progress into adulthood, their relationship with their parents changes and an increasing similarity of life experiences can yield a more equal relationship (Aquilino, 1997). At the same time, increasing independence among young people may serve as a source of conflict with parents.

Questions on the relationship with mother and father are taken from measures used by the German PAIRFAM study (Thonnissen, Gschwendter, Wilhelm, Fiedrich, Wendt & Walper, 2014). The Young Person reports on four dimensions of their relationship with their parents: 'intimacy', 'admiration', 'conflict' and 'reliability'. Each subscale comprises of two items rated on a five-point Likert scale that goes from 'never' to 'always'. Sample items include 'you tell your mother what you're thinking' and 'your mother shows recognition for the things you do'. A fifth dimension, 'fear of love withdrawal', has three items with a five-point scale ranging from 'not at all true' to 'completely true'. All questions were asked separately about mothers and fathers. Internal reliability for this scale at age 17/18 of *Growing Up in Ireland* was for mothers (intimacy $\alpha = .82$, admiration $\alpha = .80$, conflict $\alpha = .84$, reliability = .56 and fear of love withdrawal $\alpha = .64$) and for fathers (intimacy $\alpha = .83$, admiration $\alpha = .85$, conflict $\alpha = .87$, reliability = .63 and fear of love withdrawal $\alpha = .82$). This will provide useful information on the extent to which relationships with parents act as a resource in the transition to adulthood or as a source of stress to young people.

H9 Other adults the Young Person turns to for advice

It is important for adolescents to have an adult to turn to for advice and guidance. Research has shown that having an adult mentor reduces the likelihood of a young person engaging in risky behaviours and contributes to a young person's resilience as they have a source of support (Greenberger, Chen & Beam, 1998). Findings from the My World Survey showed that young people were most likely to go to a friend for support followed by a parent or a relative. Individuals who did not have someone to support them were more likely to suffer from depression, anxiety and stress.



Question H9 asked the Young Person if there is an adult in their life they can turn to for help and guidance. This will help identify groups of young people who have no such support as a basis for policy intervention and the information can be used longitudinally to explore the impact of supports on later outcomes.

H10-H11 Relationship with family members

While no family is “perfect”, a cohesive family environment is important for each family member’s well-being. Studies have shown that a disruptive family environment is associated with greater psychological distress in adolescence (Johnson et al., 2001; Repetti, Taylor & Seeman, 2002). Questions H10-H11 recorded details on the relationship between members of the household, as perceived by the Young Person. As with the other measures of family relationships, the information can be used to identify the predictors of family discord as well as the consequences for later outcomes.

H12 Parental Control

Parental control is conceptualized not only as monitoring and tracking adolescent behaviour but as having a knowledge of that young person’s day-to-day activities (Kerr & Stattin, 2000). Research has shown that when parents are effective monitors of their children’s behaviour and adolescents make spontaneous disclosures of information about their whereabouts, adolescents are less likely to engage in problem behaviours, such as substance misuse, anti-social behaviour and risky sexual activity (DiClemente et al, 2001; Perrone et al, 2004). However, higher levels of parental control can result in the adolescent feeling over-controlled, which is linked to depressive symptoms, poorer self-esteem, and expectations of failure (Kerr & Stattin, 2000).

The control subscale of the Stattin and Kerr (2000) measure was used in the present study and is linked to the Monitoring and Disclosure sub-scales asked in the Parent Main Questionnaire. The control subscale consisted of six items rated on a five point scale from 1 almost never or never to 5 almost always or always. Sample of items included “Do you need your parent’s permission before going out on week nights?”. The reliability for the scale in a study with a similar sample was $\alpha = .82$ (Stattin and Kerr, 2000). The reliability at age 17/18 years of *Growing up in Ireland* was $\alpha = .83$. The scale can be used to trace the relationship between parental monitoring and risk-taking behaviour as well as longitudinally to examine the transition to maturity and adulthood.

H13-H15 Caring for another family member

Many adolescents grow up in a family with a chronically ill or disabled family member, although until *Growing Up in Ireland*, there has been a lack of information on the percentage involved. Young caregivers may have to mature more quickly and take on adult family roles and responsibilities in comparison to their peers. Research suggests that young people who care for another family member may be at an increased risk of developmental and psychological problems (Roos, De Boer & Bot, 2016). They are more likely to miss school or experience difficulties concentrating, and are subjected to more stress, neglect and family conflict (Pakenham, et al., 2006). However, the impact of caring for a family



member in adolescence has not been as extensively studied as has the impact of caregiving on adult caregivers.

Questions H13-H15 recorded whether or not the Young Adult has regular caring responsibilities in respect of a family member.

Section J Mental Health

This section looked at the Young Person's mental health, including diagnosis of depression or anxiety. This information can be used to identify the predictors of mental health difficulties at 17/18 years of age, the extent to which they are related to other aspects of the transition process (such as difficulties in making decisions about post-school pathways, exam-related stress etc.) and the degree to which young people with such difficulties receive medical or other support. The information can also be used longitudinally to earlier predictors of mental health difficulties in young adulthood and to examine whether mental health difficulties persist into the twenties and beyond. It can also help identify whether certain groups are likely to have longer-standing difficulties. While this section focuses more on difficulties, it complements the information in Section G on more positive outcomes such as life satisfaction and self-efficacy.

J1 Short Mood and Feeling Questionnaire (SMFQ)

While people can experience mental health problems at any stage of their life, international evidence suggests that the onset of mental health disorders peaks during adolescence and into early adulthood (Kessler et al, 2005). At the age of 17/18 years, young people are exposed to a number of stressful life events which may contribute to the onset of a mental health disorder, such as taking high stakes exams, making choices about the future, and the transition to higher education or the labour market (Dooley & Fitzgerald, 2012). Anxiety and depression are the most frequently experienced mental health disorders among young people in Ireland (Cannon et al, 2013). If untreated, depression can result in academic failure, poor peer relationships, conflict with parents and other authority figures, self-harm and suicidal ideation, and substance abuse (Cook, Peterson & Sheldon, 2009).

The Short Mood and Feelings Questionnaire (SMFQ) (Angold et al, 1995) was chosen for use in *Growing Up in Ireland* as it is a brief (13-item) self-report measure and is an easy-to-administer measure of adolescent depression. The 13 items, derived from the original Mood and Feelings Questionnaire (MFQ), focus on affective and cognitive symptoms, including one item pertaining to low mood (I felt miserable or unhappy) and one item addressing anhedonia (I didn't enjoy anything at all). The informant rates each statement as true, sometimes true, or not true, over the past two weeks.

The score for depression is calculated by summing across the items. While the authors of the questionnaire found a sensitivity of 0.60 and a specificity of 0.85 at a recommended cut-off score of eight or above to differentiate between those who are depressed and those who are not, theirs was a clinical sample and therefore this cut-off may not be appropriate for a community sample (e.g. see Rhew et al, 2010). The developers of the 13-item SMFQ found it to have good internal reliability (0.87)



(Angold et al, 1995). The scale was found to have excellent internal reliability at age 17/18 of **Growing Up in Ireland** ($\alpha=.92$).

J2 Anxiety

As adolescence is a time of physiological and psychological change, young people are at increased risk of developing mental health disorders. Anxiety is one of the most common mental health disorders among young adults in Ireland (Dooley & Fitzgerald, 2012). Like depression, untreated anxiety can have a negative impact on the young person's life, increasing the risk of anxiety in later life, depression, substance misuse, poor peer relationships and academic failure (Woodward & Fergusson, 2001).

Anxiety at age 17/18 years of **Growing up in Ireland** was measured using the DASS anxiety subscale. The DASS is a set of three self-report scales designed to measure the negative emotional states of depression, anxiety and stress. As the scales of the DASS have been shown to have high internal consistency and to yield meaningful discrimination in a variety of settings, the scales should meet the needs of both researchers and clinicians who wish to measure current state or change in state over time (e.g., in the course of treatment) on the three dimensions of depression, anxiety and stress.

The DASS anxiety subscale contains 7 items assessing autonomic arousal, skeletal muscle effects, situational anxiety and subjective experience of anxious affect. The 7-items are rated on a 4 point scale, with responses of 'Did not apply to me at all', 'Applied to me to some degree', 'Applied to me a considerable degree' and 'Applied to me very much'. Scores are summed to give the total score for Anxiety. Scores can also be categorised into Normal (0-7), Mild (8-9), Moderate (10-14), Severe (15-19) and Extremely Severe (20+). The scales of the DASS have been shown to yield meaningful discriminations in a variety of settings, and to have high internal consistency ($\alpha=.80$) (Dooley & Fitzgerald, 2012). The Cronbach alpha value at age 17/18 of **Growing up in Ireland** was 0.85.

J3 Psychotic symptoms

Hallucinations and delusions are a classic symptom of psychosis and are far more prevalent in the general population than clinically diagnosed psychotic disorders (Van Os et al, 2009). A New Zealand birth cohort study followed children who at age 11 had reported psychotic symptoms and found an increased risk for a psychotic disorder in later adulthood (Poulton et al, 2000). This finding has since been replicated in several studies (Welham et al, 2009). Recent research has also demonstrated that individuals who report psychotic symptoms are also more likely to report symptoms of non-psychotic psychopathology (especially depression) and are at high risk for multiple pathology, that is, having more than 1 DSM diagnosis (Kelleher, et al. 2012).

Psychotic symptoms were measured using items from the Adolescent Psychotic Symptom Screener (Kelleher et al, 2012). Each item was rated on a three-point scale (1, no never; 2, maybe; 3, yes definitely), these were subsequently recoded and summed to provide a total score.



J4-J6 Diagnosis/treatment for depression and/or anxiety

Questions J4-J6 recorded if the Young Person had ever been diagnosed with depression or anxiety and whether or not they are undergoing treatment. This will identify the prevalence of diagnosed mental health disorders among young people in the sample, and the extent to which young people are self-reporting symptoms of mental illness but have not been clinically diagnosed.

Section K Self-harm

Self-harm refers to intentional self-poisoning or self-injury, irrespective of the motive or the extent of suicidal intent. Estimates of the number of young people that self-harm varies greatly. Hawton, Saunders & O'Connor (2012) found that self-harm has a prevalence of around 10% in adolescents, with higher rates among females than males. The My World Survey found 21% of young adults had ever self-harmed; a quarter of whom had done so in the past year. Martyn et al (2014) found just over 7% of 16/17-year-olds in rural Ireland reported self-harming 'sometimes' or 'often'. A number of risk factors for self-harm have been identified including psychological factors (mental disorder, drug and alcohol misuse), negative life events (bullying, parental divorce or separation) and sociodemographic factors (low socio-economic status, LGBT). In most cases, self-harm behaviour in adolescence ceases by early adulthood; however, repeated self-harm during adolescence is associated with persistence into adulthood (Hawton et al, 2012). Self-harm is important to investigate from a policy perspective as a history of self-harm is the largest risk factor for suicide (McMahon et al, 2010). Furthermore, self-harm can do irreversible damage to the young person's health.

Section K tapped into whether or not the Young Person had ever self-harmed and if they did, the frequency and method. (K2-K3).

Section L Bullying

Section L asked the young person about their experience of being bullied or being a bully. It also asked about coping mechanisms more generally. This information is of longitudinal interest in examining the extent to which earlier experiences of bullying at 9 and 13 years of age are linked to being a victim of bullying at 17/18 years of age. The potential effects of bullying on later socio-emotional and psychological can also be traced. Information on coping mechanisms can be used by researchers to examine whether specific mechanisms mitigate the effects of bullying or other adverse life experiences, providing an important evidence base to develop interventions to support young people over this transition period.

L1-L3 Being bullied and bullying others

Bullying is extremely prevalent in adolescence and can take many forms, including verbal, physical, emotional and, more recently, cyberbullying. Many studies suggest that boys are more likely to become perpetrators and/or victims in physical, verbal and overall direct forms of bullying, whereas girls are more likely to be involved in indirect forms of bullying (Tsitsika et al, 2014). Bullying is important to investigate as research indicates that the effects of victimisation include depression,



anxiety, suicidal ideation, substance abuse, school avoidance, loneliness, crime and delinquency (Bond et al, 2001; Hutzell & Payne, 2012; Parada et al, 2005).

Question L1-L3 asked the Young Person about their experience of being bullied or being a bully.

L4 Coping styles

Coping mechanisms are the methods a person uses to deal with stresses or unanticipated problematic situations (Folkman & Lazarus, 1988). Some people listen to music while others have rituals or routines that they use to keep their mind off the situation (Dooley & Fitzgerald, 2012). Coping mechanisms can have both positive and negative outcomes depending on the approach taken. Individuals who use maladaptive coping strategies, such as avoidant coping, are at risk of depression, anxiety and stress (Mahmoud et al, 2012). In extreme cases, inability to cope with particularly stressful situations can contribute to suicidal ideation (Eisenbarth, Champeau & Donatelle, 2013). In contrast, people who use positive coping strategies, such as discussing the problem with others, accepting the problem and listening to music or exercising, are not only more resilient but have greater life satisfaction (Dooley & Fitzgerald, 2012).

Three coping strategies were assessed using a measure of coping derived from the Coping Strategy Indicator (Amirkhan, 1990) and previously used in the Irish context as part of the My World Survey (Dooley & Fitzgerald, 2012). These are: problem solving, seeking social support, and avoidance coping. Higher scores on problem solving and seeking social support, and lower scores on avoidance, indicate more adjusted coping strategies. Respondents were asked to indicate when they have difficulties or problems, how they respond from 'never' to 'always' on a 6-point scale. Items are focused on problem solving ('I plan how to solve the problems before I do anything else'), seeking social support ('I go to a friend for advice') or avoidance ('I avoid the problem by spending more time alone'). The Problem-solving subscale had 5 items; the Social Support subscale had 4 items and the Avoidance subscale had 6 items.

According to Dooley and Fitzgerald (2012), the adapted version has demonstrated a three-factor structure in line with the original CSI and has shown good internal consistency ($\alpha = .74$). The scale was also found to have good internal consistency at age 17/18 of *Growing Up in Ireland* (problem solving $\alpha = .83$, seeking social support $\alpha = .9$, avoidance coping $\alpha = .83$).

L5 Supports for the Young Person

Question L5 asked the Young Person who they talk to when they have a problem. As with coping mechanisms, this will provide crucial information on the supports to which young people have access and their willingness to seek out help.

Section M Anti-social behaviours and trouble with the Gardaí

This section recorded details regarding the Young Person's involvement in anti-social behaviour, being in trouble with the Police (Gardaí), and friends' anti-social behaviour.



M1 Anti-social behaviour

A small number of young people engage in criminal behaviour each year. While most young people grow out of this behaviour, a small minority still engage in delinquent behaviour into adulthood. There are many proposed causes of anti-social behaviour in adolescence including: socio-economic status (Piotrowska et al., 2015), school problems, family structure (Amato, 2005), parenting style (Perrone et al, 2004), peer influences (Vitario, Brendgen & Tremblay, 2002) and neighbourhood characteristics (Thornton & Williams, 2016). Adolescent anti-social behaviour is important to investigate because of its impact on the safety of society, the costs associated with behaviours such as theft and vandalism, the implications for the young person such as exclusion from their families and schools, and because it can lead to more serious crimes (Armitage, 2002).

Respondents in *Growing Up in Ireland* were asked a sequence of questions about 17 kinds of delinquent behaviour. These 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; hitting, kicking or punching someone to hurt or injure them, etc. The questions were developed by researchers in the Edinburgh Study of Youth Transitions and were also used in the Belfast Youth Development Study. There is a lack of relevant data and research on youth anti-social behaviour in Ireland; therefore, this information will provide a new evidence base on the topic. These questions can be linked to other information obtained in the course of the interview to obtain a clearer picture of factors associated with anti-social behaviour, such as the individual characteristics of the Young Person (including gender, temperament), family (size, structure, SES, parenting, parental antisocial behaviour or incarceration), and relationships with peers. This question was also asked at 13 years of age and may enable researchers to look at the escalation/persistence of anti-social behaviour among this age group.

M2-M5 Trouble with the Gardaí

Question M2-M5 asked the Young Person about their involvement with the Gardaí and the criminal justice system.

M6 Drug/alcohol use and anti-social behaviour by friends

As mentioned previously, friends play a key role in the young person's life during adolescence (Spithoven et al, 2017). Friends may have an influential role on engagement in crime and deviant behaviour. Monahan, Steinberg & Cauffman (2009) found that affiliation with deviant peers and susceptibility to peer influence are important contributors to adolescent delinquency. Question M6 asked the Young Person to rate how frequently their friends engage in delinquent behaviour.

Section N Leisure Activities and Internet Use

N1-N2 Screen-Time

Screen time refers to the amount of time an individual spends in front of an electronic screen such as a television, computer or smart phone. A moderate amount of screen time can be important for



education or leisure. However, excessive amounts of screen time can be harmful as it has been linked to lack of physical exercise, sleep problems, obesity, reduced academic performance and psychological health issues such as withdrawal and reduced time with family and friends (Hale & Guan, 2015; Melkevik, et al, 2010; American College of Paediatricians, 2016). Question N1 asked the Young Person about their screen time during the week and at the weekend. Question N2 asked the Young Person how often they 'multi-screen'. This will provide new information in the Irish context on the characteristics of young people who spend considerable amounts of time using electronic devices and the consequences for their psychological and socio-emotional development.

N3 What the Young Person uses the internet for

The role the internet plays in young people's lives is continually changing, with young people now using the internet for a variety of tasks including shopping, meeting potential partners and looking for medical advice etc. Question N3 asked the Young Person what they use the internet for.

N4 Internet addiction

Concerns have been expressed that too much time on the internet can have a negative impact on young people's lives, leading to poor school performance, social isolation, physical health problems due to sleep deprivation and lack of physical activity (Kraut, 1998; Smahel et al, 2012). Results from Europe-wide research (EU Kids Online) suggest that adolescents that are most vulnerable to excessive internet use and can result in emotional problems and high levels of sensation-seeking. However, while researchers are clear in their definition of excessive internet use, there is disagreement between researchers about the extent to which it can be considered an addiction. This wave of *Growing Up in Ireland* will investigate excessive internet usage among young adults and the impact that excessive use has on their psychosocial development.

The measure used in the current wave of *Growing Up in Ireland* was used in the Net Children Go Mobile project⁸ and the EU Kids Online survey⁹, which is a thematic network coordinated by Professor Sonia Livingstone and Dr Leslie Haddon at the Department of Media and Communications, London School of Economics and Political Science. It aims to coordinate and stimulate investigation into the way children use new media, with a particular focus on evidence about the conditions that shape online risk and safety. Its three phases of work have been funded by the European Commission's Better Internet for Kids (originally, Safer Internet) Programme. The measure used has 6 statements, including 'Felt bothered when I cannot be on the internet', 'Tried unsuccessfully to spend less time on the internet', 'Spent less time than I should with family, friends or doing coursework because of the internet', with answer categories ranging from Never or almost never, Not very often, and Very or

⁸ <https://netchildrengomobile.eu/>

⁹ <http://www.lse.ac.uk/media-and-communications/research/research-projects/eu-kids-online/toolkit/survey-questionnaires>



fairly often. An individual is considered an addict if all six components are present. The internal consistency at age 17/18 in *Growing Up in Ireland* was $\alpha = .72$.

N5 Locus of control

People with an internal locus of control believe that they are in control of their own lives while those with an external locus of control see control as being out of their hands and dictated either by fate or people with power over them (Rotter, 1966). Locus of control is an important aspect of personality psychology because it helps explain why some people are more proactive about their lives than others. This information can be used to examine the relationship between locus of control and the kinds of decisions young people make about post-school pathways.

The scale included in the study was the Rotter locus of control scale (Rotter, 1966). The scale consisted of five items measured on a six point scale from '1' strongly agree to '6' strongly disagree. An examples of an item includes: "Becoming a success is a matter of hard work. Lucky breaks have little or nothing to do with it". The scale has previously been found to have good internal reliability ($\alpha = .73$) and test-retest reliability ($\alpha = .72$). The internal consistency at age 17/18 in *Growing Up in Ireland* was $\alpha = .78$.

Self-Completion Time-Use Diary

At the end of the interview the interviewer left a copy of a self-completion time-use diary with the Young Person and asked him/her to fill it out on a specified day,¹⁰ for return to the Study Team by post in a prepaid envelope. The purpose of the time-use diary was to record what the Young Person did for each 15-minute slot during the reference day for the diary from 12 midnight to 12 midnight.¹¹ This information will allow researchers to examine how adolescents use their time, variation in the characteristics of adolescents and time use, and most importantly the relationship between time use and outcomes.

A worked example of the time-use diary was explained by the interviewer and left with the respondent. A specified date for filling out the diary was filled in on the front cover by the interviewer before leaving the household. The 'diary days' were allocated to respondents in such a way as to provide a sample of days throughout the week. A copy of the time-use diary is given in Appendix 16

There were a total of 25 activities used in the time-use diary:

1. Sleeping/Resting (including time to get to sleep, trying to get up)

¹⁰ The day for completion was provided on the interviewer's Work Assignment Sheet. This was transferred to the diary by the interviewer.

¹¹ The structure, format and implementation of the diary was taken from a national study carried out by the ESRI; see McGinnity, Russell, Williams and Blackwell (2005).



2. Personal care or getting ready (showering, washing, dressing, brushing teeth or hair, doing make-up, getting changed or ready for school, for training, for going out or for going to bed)
3. Eating (breakfast, lunch, dinner, tea)
4. Travelling (to or from school or elsewhere)
5. At school/College
6. At work
7. Doing homework or study
8. Just hanging around with friends (outside or inside)
9. Spending time with family
10. Playing with or exercising a pet
11. At the gym, playing sport or doing physical exercise (training, matches)
12. Attending a sports event
13. Using the Internet / emailing (including social networking, browsing, etc)
14. Playing computer games (e.g. PlayStation, PSP, Xbox or Wii)
15. Talking on the phone or texting
16. Music lessons (or practising music), drama, classes, etc
17. Watching TV, films, videos or DVDs
18. Listening to music
19. Reading for pleasure or interest (not for school/college/study)
20. Housework (preparing food, tidying bedroom, feeding pets)
21. Hobbies and other leisure activities
22. Out shopping to buy things (groceries, clothes etc)
23. Going to discos or bars etc.
24. Going to party or other social event (in people's houses)
25. Other



Food Frequency Questionnaire

An additional food frequency questionnaire (FFQ) was left behind as a 'drop off' in the household. To account for the cases which do not return the Food Frequency Questionnaire, the shorter diet inventory, which was used at 13 years, was included in the Young Person Main Questionnaire. The food frequency questionnaire was previously used in another Irish study, the Survey on Lifestyle and Attitudes to Nutrition (SLÁN). The FFQ was an adapted version of the European Prospective Investigation of Cancer (EPIC) study (Kroke et al, 1999) and has been validated for use in the Irish population (Harrington, 1997).

The food frequency questionnaire assesses the Young Person's diet and included 150 food items arranged into the main food groups consumed in the Irish diet. Respondents were asked to indicate their average frequency of consumption of each food item over the last year. They could choose from 9 frequency categories, namely: 'never or less than once a month'; '1-3 times per month'; 'once a week'; '2-4 times per week'; '5-6 times per week'; 'once a day'; '2-3 times per day'; '4-5 times per day'; and '6+ times per day'. Approximate amount of food consumed was measured on a 'medium' serving (e.g. a slice) or a common household unit (e.g. a teaspoon) and these can be later converted into quantities using standard portion sizes. This questionnaire will provide more detailed information on diet and allow for an assessment of the adequacy of nutrition among young people and help identify the groups who are not receiving adequate nutrition. Although the FFQ data in its raw format provides extensive information on dietary habits, an open-source processing tool (FFQ EPIC Tool for Analysis; FETA) was developed by EPIC study researchers to calculate the average daily nutritional intake of each respondent based on their dietary habits (Mulligan et al., 2014). Upon combining all FFQ items, the FETA output produces an average daily nutrient intake for each participant; this consists of 46 nutrients (e.g. carbohydrate, cholesterol, iron, energy) and 14 food groups (e.g. fruits, fats/oils, sugars). Further information regarding the treatment of the food frequency questionnaire (and time-use diary) data is available in a forthcoming report (McNamara & Quail, in press).





Chapter 8

COGNITIVE TESTS





8 COGNITIVE TESTS

8.1 INTRODUCTION

Measuring cognitive development is an important component of *Growing Up in Ireland*. The challenge faced by the Study Team was to find an appropriate set of instruments to measure cognitive development longitudinally, using age-appropriate measures. It was also important to find measures that possessed strong measurement properties, could be used in a large-scale quantitative survey and could be administered within an acceptable time. The three tests that were included were a Semantic Fluency test, a Vocabulary test and three mathematical questions. They capture key aspects of cognitive development, namely, vocabulary skills, general knowledge and executive function, and numerical skills. They differ in nature from the tests used at 9 and 13 years of age as no age-appropriate versions of those tests were available.

8.2 SEMANTIC FLUENCY TEST (ANIMAL NAMING TASK)

The Semantic Fluency Test, otherwise known as the Animal Naming Test, involved the participant naming as many animals as they could think of in one minute. This type of test draws on general knowledge in long-term memory and requires use of executive function to access that knowledge and self-monitor responses for repetitions, acceptable items etc. According to Tombaugh, Kozak and Rees (1999), this type of task features as part of many wider batteries of cognitive function and usually people are asked to name animals (in preference to fruit, colours etc.). Although often associated with testing among older people or those suspected of some cognitive impairment, there are now norms for cognitively healthy individuals ranging in age from 16 to 95 years (Tombaugh et al, 1999). Tombaugh et al. (1999) found variation in performance on the animal naming task by both years of education and age. The mean number of animals named in a minute for young adults aged 16-19 years was 21.5.

The animal naming task has been used successfully by the Irish Longitudinal Study of Aging (TILDA).

8.3 VOCABULARY TEST

At age 17/18 years in *Growing Up in Ireland*, the Young Person's vocabulary was tested using the same vocabulary measure given to BCS70 participants at age 42 and the Millennium Cohort Study when they were 14 in 2015. The words originally came from the standardised vocabulary tests devised by the Applied Psychology Unit at the University of Edinburgh in 1976. The task includes 20 words that increase in difficulty from 'quick' to 'pusillanimous'. Each word is accompanied by five other words and the respondent has to choose which of the five is closest in meaning to the target word. Respondents complete the test on paper with a time limit of four minutes.

In the BCS70 at age 42 the mean percentage correct was 63%. Further analysis suggested that adult vocabulary was influenced by both adulthood factors (such as education, occupation and current reading) and childhood experience (such as reading for pleasure) (Sullivan & Brown, 2015).



While a measure of vocabulary does not give as broad a picture of an individual's cognitive skills as a wider battery of assessments, there is a widely observed and oft-replicated correlation between measures of vocabulary and other measures of intelligence. Graves (2008) summarises three hypotheses for this relationship¹² as (a) expanding one's vocabulary facilitates increases in intelligence/cognitive ability, (b) wider vocabulary reflects a wider knowledge base or (c) greater intelligence facilitates the acquisition of a wider vocabulary. In addition, vocabulary measures frequently form a core component of intelligence batteries; and reading ability or verbal reasoning (closely related to vocabulary) was measured with this cohort at both 9 and 13 years.

Example of words asked in the vocabulary test:

1. Chair Poor.....□ Step.....□ Seat.....□ Thick.....□ Mat.....□

8.4 FINANCIAL LITERACY/NUMERACY

The third component of the cognitive assessment consisted of three short questions aimed at testing the respondent's ability to work out relatively simple mathematical calculations. The three individual questions have been used with an Irish sample in the Irish Longitudinal Study of Aging (TILDA). As in the vocabulary test, the questions were answered on paper, with extra space provided to allow for the individual to perform any calculations. There is no fixed time limit for completing the questions.

While the questions do not form part of a standard measure, they are similar to other questions that have been used in other surveys such as the 2009 National Financial Capability study in the USA. In addition, they serve as a contrast to the vocabulary measure – being less language focused – and the issue of financial literacy and numeracy is a topic of interest among researchers, particularly in the area of behavioural economics.

Example of a question:

Question 3: Let's say you have €200 in a savings account. The account earns 10 percent interest per year. How much would you have in the account at the end of two years? Assume compound rather than simple interest.

In the pilot study (Williams et al., forthcoming), scores in the three tests correlated in the expected direction with young people's academic self-rating and with parental educational expectations.

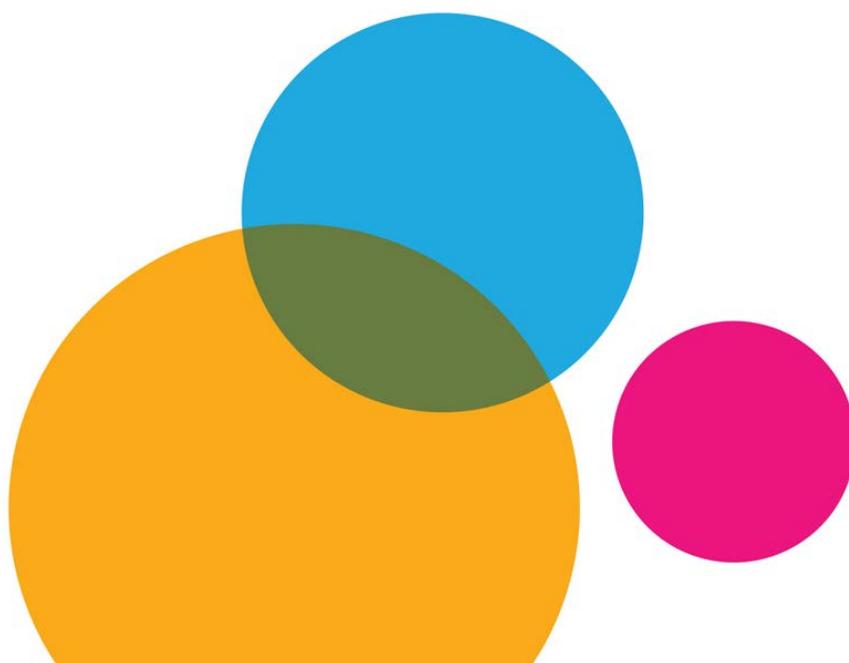
¹² Originally credited by Graves to Anderson & Freebody (1981) and Baumann (2005)





Chapter 9

OTHER INSTRUMENTS AND MEASURES





9 OTHER INSTRUMENTS AND MEASURES

9.1 INTRODUCTION

This section details other instruments used to collect data during the current wave of the study. Two other questionnaires were administered: the Non-resident Parent Questionnaire and the Principal/Schools Questionnaire (see Appendices X and X respectively).

9.2 NON-RESIDENT PARENT QUESTIONNAIRE

If applicable and if Parent One gave permission, the interviewer recorded the contact details of a biological non-resident parent for the purpose of sending out a self-completion questionnaire to that parent. Of the 222 non-resident parents for whom Parent One provided contact details, 44 per cent were completed and returned. A detailed description of the questions contained in the Non-resident Parent Questionnaire can be found below.

Q1-Q8 Contact with the Young Person

Prior research has examined the extent to which the frequency, type, nature and quality of time spent with a non-resident parent affects a variety of indicators of child/adolescent well-being (Aquilino, 2006). Research has found that non-resident fathers who remain consistently involved with their children and committed to their parent role when children are younger will be more likely to have stronger relationships with their sons and daughters into adulthood (Aquilino, 2006). Furthermore, frequency of contact with the non-resident parent is associated with lower risk of internalising and externalising problems and poor academic performance among both males and females (Mitchell et al, 2009). However, the level, frequency and type of contact appears to differ between males and females, with males often spending more time with a non-resident father than females (Mitchell, Booth & King, 2009). Frequency of contact is influenced by a variety of factors, including the child's age at separation, whether the birth was within a marital or non-marital relationship, parents' education, parents' age and employment status (Cheadle, Amato & King, 2010).

Questions 1-8 asked the non-resident parent about contact with the Young Person, including when they last saw their child (Q1), how many nights they spend together in a typical month (Q3), the pattern of contact with the Young Person (Q4), the duration of contact (Q5), and where they spend their time together (Q8). Questions 6-7 asked the non-resident parent to rate the amount of time spent with the 17/18 year old from 1 nowhere near enough to 5 way too much; if they felt they did not spend enough time with the Young Person, they were asked to specify why.

Q9-Q10 Means of, and amount of, communication with the Young Person

Adolescents frequently use technology to keep in contact with family and friends; however, little research has been conducted on the influence of technology on the non-resident parent-adolescent relationship. Questions 9-10 asked about the amount and type of contact between the non-resident parent and Young Person outside of personal visits. The information gathered will help to indicate the importance and impact of this type of contact on the parent/adolescent relationship.



Q11 Rating of quality time spent with Young Person

Amato and Gilbreth's (1999) meta-analysis of 63 studies demonstrated that the quality of the parent-child relationship is more important than the frequency of contact in terms of its impact on the young person's educational achievement and externalising/internalising behaviours. This finding has been confirmed by other investigators (Stewart, 2003; King & Sobolewski, 2006). Question 11 asked the parent to rate the quality of the time spent with the Young Person. Posing this question to the parent allows a comparison with earlier parental assessments of the quality of the relationship at ages 9 and 13.

Q12-Q17 Financial supports paid to Parent One and Young Person

After divorce or separation, mothers and children tend to be economically disadvantaged relative to fathers and in many circumstances child support payments help to alleviate that disadvantage (Cabrera et al, 2000). Furthermore, there is a positive relationship between payments of support and child-well-being, educational attainment and health (Dunn, 2004). A variety of factors appear to affect fathers' payment of child support, including employment, income, and responsibilities to a new family (Cheadle et al, 2010).

Questions 12-17 asked the non-resident parent whether or not s/he makes payments towards the mortgage or rent of the 17/18 year olds primary care-giver's home; whether or not s/he pays financial support to the 17-year-old's mother; and whether or not s/he pays financial support directly to the 17-year-old.

Q18-Q19 Age of Young Person at time of parental separation

Details on age of the Young Person at the time of separation were recorded to investigate the influence of age on the effects of parental separation. Research has shown that the age of the child has an impact on the father-child relationship; the younger the child at separation the less contact, there is between fathers and children at later ages (Aquilino, 2006). Although the consequences of divorce tend to dissipate over time, research is inconclusive as to whether marital dissolution has stronger effects on younger children than adolescents (Cherlin, Chase-Lansdale & McRae, 1998).

Q20-Q22 Quality of relationship with Parent One

Research on divorced and non-divorced families indicates that divorce itself may not have much of an impact on children's relationships with their parents; rather it is the degree of interpersonal conflict. A high degree of conflict between former spouses can have an adverse impact on adolescent outcomes and on the parent/child relationship (Afifi & Schrodt, 2003).

These questions asked about frequency of contact with the child's biological parent, the quality of the interpersonal relationship and the extent of the non-resident parent's involvement in major decisions concerning the Young Person.



Q23 Changes in relationship with Young Person

Young people's relationships with their parents change throughout adolescence, with children becoming less dependent on their parents; however, little is known about how this impacts on the non-resident parent-adolescent relationship (Spithoven et al, 2017). Question 23 asked the non-resident parent if there had been any changes over the last two years in their relationship with the Young Person and if so, they were asked to specify why. This question was left open, rather than focusing on specific aspects of the relationship, so that parents could answer in terms of their overall perception of the quality of the relationship.

Q24-Q28 Demographic information on Non-resident Parent

These questions gathered basic demographic information about the non-resident parent, including their date of birth, age when their first child was born, current employment status, occupation, and level of education. These are important explanatory variables in the non-resident parent and child relationship. For example, non-resident parents who are employed and have a higher level of education are more likely to spend more time with their child and provide financial assistance to their child (Aquilino, 2006).

Q29-Q32 Current family/relationship status

A number of studies have found that the quantity and/or quality of parental contact between parents and their 'original' biological children is negatively affected by the non-resident parent's re-marriage, particularly when there are new children (e.g. Seltzer & Brandreth, 1994; Manning, Stewart & Smock, 2003; McGene & King, 2012).

Questions 29-32 asked about the non-resident parent's current marital status, whether they were in a relationship with a new partner, how long this relationship had been established and whether they had other biological children. This information will enable researchers to explore the extent to which commitment to another family affects the relationship with the non-resident child.

Q33-Q36 Parent's nationality and residence in Ireland

These questions captured basic demographic information about the non-resident parent's nationality and the length of time they have been living in Ireland.

Q37 Parent's health status

The same item that was used to index Parent One's Health Status (see section A of Parent's Questionnaire).

9.3 THE PRINCIPAL QUESTIONNAIRE

Schools vary significantly in the academic performance and in the personal/social development of their pupils (Smyth, 1999). Difference in academic performance between schools have been noted by school social mix, by whether the school is coeducational or single-sex, and so on (Smyth, McCoy &



Kingston, 2015; Van Houtte, 2004). There is on-going debate about the extent to which such differences reflect school characteristics or the composition of the student population in the school.

As at the previous wave of *Growing Up in Ireland*, school principals were sent a short questionnaire to record details about the school. In addition to capturing basic demographic information such as the number of pupils and the number of staff, the questionnaire measured a variety of important school-level variables, such as the adequacy of facilities and resources, the prevailing value system and ethos of the school, and various aspects of school climate. This information will be of value in between-school comparisons of educational outcomes, as well as making it possible to link this information to the Young Person's individual-level data. The questionnaire was posted and was self-completed by the Principal on paper. The survey of school principals was sent to all 720 second-level schools in Ireland. The response rate was 70 per cent of all schools. From the perspective of the Young Person, school information was provided in relation to 78 per cent of the sample. Respondents were spread across 636 schools, with the number per school varying from 1 to 102, with an average of 1.5 per school.

The questionnaire contained the following questions:

P1 – P3 Personal information

These items captured basic descriptive information about the Principal such as age, gender, the number of years he/she had been principal in their current school and the number of years as principal in other secondary schools, if applicable.

P4 – P7 School characteristics

These questions asked about the gender makeup of the school, its religious ethos, the type of school (fee paying, community college, comprehensive, mainstream, etc.), and whether the school participated in the DEIS (Delivering Equality in Schools) Programme.

P8 – P9 Staffing resources

The questions on staff resources included the number of teaching staff employed in the school on a full-time and part-time basis, their gender breakdown, and whether the school had additional supports such as resource teachers, special-needs assistants, a Home-School Community Liaison Officer, etc.

P10 Guidance Counsellor

This question asked whether the school had a guidance counsellor and if so, how many hours a week he/she spent on career and guidance counselling. This is important as guidance counsellors can play a key role in student's career-related decisions. Research has shown that the amount and nature of guidance received varies across schools, and many young people are disappointed with the level of guidance that they receive (Smyth, Banks & Calvert, 2011).



P11 Perception of adequacy of resources in terms of teachers, classrooms, sports facilities, etc.

This question, adapted from the Early Childhood Longitudinal Study, was designed to assess the adequacy of the school's facilities and resources across a number of areas (e.g. number of teachers, number of classrooms), with responses indicated on a four-point Likert scale ranging from poor to excellent. Evidence summarised by Schneider (2002) suggests that student achievement is correlated with better school facilities such as newer school buildings and with modern libraries and laboratories.

P12 Students with difficulties

Question P12 recorded details on the proportion of students who had literacy, numeracy or behavioural problems such that would adversely affect their educational development. A high incidence of young people with these types of problems may indicate a challenging teaching and learning environment.

P13 Year school was built and number of pupils the school was designed for

This question recorded what year the school was built and the number of young people that the school was designed to accommodate.

P14 School supports for students

This question asked the principal to tick the extent to which different members of staff (principal, guidance counsellor) are involved in providing support to students from 1 to a great extent to 4 not at all, and who is the single most important support in the school.

P15 Programmes offered by the school

This question recorded what programmes the school offered including Transition Year, the Leaving Certificate Applied Programme, Leaving Certificate Vocational Programme etc.

P16 Subjects taught at senior cycle

This question asked what senior cycle subjects are taught in the school and what levels each subject is taught at.

P17 Extracurricular activities offered by the school

These questions relate to the importance attached by the school to a range of curricular and extracurricular activities. Research has shown that student involvement in extracurricular activities can help foster a positive school climate, reduce school drop-out and improve academic performance (Bartko & Eccles, 2003).

P18 Basis for allocating students to their base class

If there was more than one class in any year group, the principal was asked about the basis by which students were allocated to their base class, including randomly/alphabetically, performance on tests, or other.



P19-P20 School admission

The increasing pressure on school places in large urban areas has prompted interest in the extent to which there is 'selection' within the school sector and whether this is differentially related to educational outcomes at the school level. Principals were asked the extent to which the school was over-subscribed (that is, had more applicants than could be accommodated) and, if so, what criteria were used to select students.

P21-P22 Attendance and absence levels

Schools send attendance/absence figures to Túsla (The Child and Family Agency) on an annual basis. These relate to the average daily attendance at the school in the academic year, and the proportion of pupils who missed 20 days or more. Research points to a strong link between attendance and educational outcomes (e.g. Reid, 2006); studies have found that schools with higher rates of daily attendance tend to outperform schools with lower attendance in achievement tests (Gottfried, 2010).

P23 School composition

This question records information about the number of children who are foreign nationals or from families in the Traveller community, as well as the number of children with sensory, language and learning difficulties. Studies have consistently shown that the background of students has a strong impact on educational outcomes and that both ability mix and social mix have an effect on student progress and achievement (Rutter & Maughan, 2002).

P24-P25 Parent-teacher meetings and parent attendance

Information was collected on whether the school held a formal parent-teacher meeting at least once a year and what proportion of parents attended. Parental involvement in education is strongly related to students' educational aspirations and academic achievement (Carter & Wojtkiewicz, 2000). Parental involvement is also considered a measure of school climate (Ma, 1999) with high parental involvement a correlate of school effectiveness (Marzano, 2003).

P26 Anti-bullying programme

School bullying has become a topic of public concern and much research in various countries around the world. School bullying is an issue due to the adverse impact it has on the victim and in turn the school climate and student cohesion (Swearer et al, 2010). This question asked whether the school had an explicit anti-bullying programme. All schools in Ireland are now required to have an anti-bullying policy in place. Research indicates that schools that employ a formal anti-bullying strategy tend to have lower rates of bullying (Fekkes, Piipers & Verloove-Vanhorick, 2006).

P27 Perception of teacher attitudes within the school

Research finds that principals are important figures in creating a trusting, cooperative, and open school environment (Tschannen-Moran & Gareis, 2015). Previous research in Ireland indicates that less academically effective schools are characterised by less positive relations between management and staff and less supportive relations among teachers (Smyth et al., 2004). Question P27 asked the



principal to rate the attitudes of teachers within the school along a number of dimensions, with response categories ranging from true of nearly all to true of only a few.

P28 Perception of student attitudes and behaviour in general

This question asked about the Principal's perception of the attitudes of students in school. Positive school attitudes are important for educational achievement and student engagement (Musheer, Govil & Gupta, 2016).

P29 Percentage of students who go on to further education

Question P29 recorded what proportion of students continues onto higher education.

P30 Stress and satisfaction of Principal with the job

Question P30 asked how stressed and satisfied the Principal feels about their job.



Chapter 10

SUMMARY





10 SUMMARY

10.1 INTRODUCTION

Growing Up in Ireland continues to play a key role in informing child and family policy. It is the only large-scale quantitative longitudinal study of children and young people in Ireland. With data available on the Study Children/Young People at 9, 13 and 17/18 years of age, it is now possible to describe and analyse their lives in truly longitudinal terms to further our understanding of the processes which have influenced their development from middle childhood and earlier.

The multi-disciplinary nature of the study is one of its many strengths. It provides information across a broad range of variables and characteristics which impact on the growth of young people as they mature into early adulthood at 17/18 years of age. As noted in Chapter One, the main areas of attention in *Growing Up in Ireland* were on the child's physical health and well-being; cognitive development and school performance; and socio-emotional and behavioural development at 9 and 13 years of age. At 17/18 years of age a further focus of their development was added, in the area of economic and civic participation and their emergence into adulthood. Aspects of all four domains can both affect and describe the lives of young people at the centre of *Growing Up in Ireland*.

Equally important to an understanding of developmental processes are details on the background characteristics of the child or young person. Their family, school and community contexts, for example, as well as the policy environments within which they grow are all critically important in shaping their outcomes. Accordingly, in addition to recording substantial detail in the four domains outlined above, *Growing Up in Ireland* also records a large amount of information on the family, social and economic contexts of the developing child or young person. This 'fifth domain' of background characteristics is critical for a full understanding of child outcomes and the processes shaping them. The recording of this wealth of detail in the four substantive domains as well as the background characteristics facilitates analysis within the bio-ecological model which underlies the project. It allows analysts to investigate the child's or young person's development in the many contexts within which s/he lives and with which s/he interacts.

The Study Team remains conscious of its responsibility to ensure that *Growing Up in Ireland* is conducted to the highest technical and ethical standards. All of the instruments, tests and measurements discussed in detail in the previous chapters in this report were informed by existing international research on children and young people and were developed in consultation with national and international experts and stakeholders and other contributors (Chapter 3). The instruments were further refined after the pilot study (Williams et al., forthcoming). All stages of the project have been subject to international peer



review and rigorous ethical appraisal.¹³ Overall, 6,216 families were interviewed in Wave 3 when the Young Person was 17/18 years old, a retention rate of 74 per cent of the original cohort of 9 year olds. Information was collected at this stage from the Young Person, Parent One and, where relevant, Parent Two. In addition, questionnaires were completed by non-resident parents, if applicable, and by their school principals. All data have been reweighted to take account of differential non-response.

10.2 SUMMARY OF CROSS WAVE MEASURES

The completion of interviews when the young people were 17/18 years of age means that data are now available in Ireland spanning middle childhood to late adolescence and early adulthood. In designing the instrumentation, the Study Team was aware of the need to adequately capture the multi-faceted and bi-directional nature of the influences on development over the life-course, while being sensitive to emerging abilities and developmental milestones, whilst ensuring that it maintains and maximises cross-wave consistency in terms of questions measures. The tables below summarise the broad types of information which has been collected from participants in the study over the first three waves of data collection with the Child Cohort (Cohort '98). These tables indicate the nature of the information in question, in which waves it was collected and from whom it was recorded (from Parent One/Parent Two or from the Young Person him/herself). Clearly, when the Study Child was 9 and 13 years of age a greater proportion of information was recorded from his/her parents. By the interview at 17/18 years of age a much greater proportion of the information was recorded from the Young Person him/herself in the course of their administered or self-complete questionnaires.

10.2.1 SUMMARY OF PHYSICAL HEALTH AND DEVELOPMENT

Table 10.1 summarises the types of information recorded in the broad domain of physical health and well-being. One can see that this covers all aspects of current general health, illness and disability; medication taken; supports in school for medical conditions; healthcare utilisation in the previous year; medical health insurance; some broad measures of dental health; orthodontic treatment; problems with hearing, sight or mobility.

A further major area of investigation in the health domain is diet and eating patterns. This included details on types of foods consumed in the 24 hours preceding the interview using a short food frequency module; questions on special dietary requirements or special diets being followed by the 17/18-year-old; dieting behaviours and frequency of exercise. Details on sleep and sleep patterns were also recorded.

Finally, in this domain some information was recorded on health-compromising behaviours such as smoking, drinking alcohol and taking illicit drugs.

¹³ The Study Team would like to take the opportunity of expressing its appreciation to the Research Ethics Committee (REC) for its enormous input to ensuring that the study is subject to rigorous scrutiny at every stage of its rollout.



From Table 10.1, it is clear that although some of the health-related information was recorded from Parent One, a very sizeable proportion was also recorded directly from the 17/18-year-old him/herself.

Table 10.1 Young Person’s physical health and well-being

Topic	Source	9 years	13 years	17/18 years
YOUNG PERSON'S GENERAL HEALTH				
General health status	Parent	X	X	X
	Child			X
Current chronic illness	Parent	X	X	X
	Child	X		X
Respiratory Problems	Parent		X	X
Accidents in the last year	Parent	X	X	
Young Person exposure to tobacco in the home	Parent	X	X	X
Young Person conditions/disabilities	Parent	X	X	X
Diagnoses	Parent	X	X	X
	Young Person			X
Medication	Parent	X	X	X
	Young Person			X
School supports for physical health and well-being	Parent			X
	Young Person			X
Other supports	Parent		X	X
Adequacy of supports	Parent		X	
HEALTHCARE UTILISATION				
Nights in hospital in last year	Parent	X	X	
	Young Person			X
Medical insurance	Parent	X	X	X
Contact with health professional	Parent	X	X	
	Young Person			X
Reason for non-receipt of medical treatment	Parent	X	X	X
Reason for non-receipt of dental treatment	Parent	X	X	
Frequency of dental visits	Parent	X	X	
	Young Person			X
Teeth pulled or filled	Parent	X	X	X
Orthodontic treatment	Young Person			X
Treatment for sight problems	Parent	X		
Treatment for hearing problems		X		
Mobility support	Parent	X		
Handedness	Parent	X		
YOUNG PERSON'S DIET AND EXERCISE				
Eating breakfast before school	Parent	X	X	
	Young Person		X	X
Brief food frequency questionnaire	Parent	X		
	Young Person		X	X
Special diet	Parent	X		



Topic	Source	9 years	13 years	17/18 years
Perception of Young Person's weight	Parent	X	X	
	Young Person		X	X
Young Person's dieting behaviour	Young Person		X	X
Young Person's frequency of exercise	Parent	X		
	Young Person	X	X	X
Mode of transport to school/college	Parent	X	X	
Sleep	Young Person			X
Skin type	Young Person			X
HEALTH COMPROMISING BEHAVIOURS				
Smoking behaviours	Young Person		X	X
Alcohol consumption	Young Person		X	X
Use of illicit drugs	Young Person		X	X

In addition to the survey information on the 17/18-year-old, direct measures of their height, weight and blood pressure were also taken and recorded by the interviewer (not on a self-assessed basis) in the course of their visit to the respondent's home. Blood pressure was recorded for the first time at 17/18 years of age. Height and weight were recorded in all three rounds of the study. All measurements were recorded on medically approved equipment.

10.2.2 SUMMARY OF YOUNG PERSON'S SOCIO-EMOTIONAL WELL-BEING, BEHAVIOURS AND RELATIONSHIPS

Table 10.2 summarises the main measures recorded in the broad area of socio-emotional well-being and behaviours, including relationships (parental and peer).

Some of the main areas of interest in this domain included: scales on the 17/18-year-old's general emotional well-being, principally measured through the Strengths and Difficulties Questionnaire (SDQ). Personality was also recorded using the Ten-item Personality Inventory (TIPI). Details were also recorded on issues around anti-social and delinquent behaviours; anxiety; self-esteem; self-harm; eating disorders; maturation and experience of psychotic symptoms.

Information on size of friendship networks; the quality of relationships with peers and whether or not the 17/18-year-old had been a victim of bullying was also recorded, as were details on their relationship with parents/guardians. This latter included measures of monitoring by, disclosure to and control by Parents One and Two. Details on experience of adverse life events across a range of different areas of the 17/18-year-old's life were also recorded.

Finally, in this broad area of socio-emotional well-being and behaviours information was recorded on various activities engaged in by the young person. These included hobbies, volunteering, sports participation and social media activity.



Table 10.2 Young Person’s Socio-Emotional Well-Being, Behaviours and Relationships

Topic	Source	9 years	13 years	17/18 years
17/18-YEAR-OLD’S SOCIO-EMOTIONAL WELL-BEING AND DEVELOPMENT				
Emotional and behavioural health: Scale: Strengths and Difficulties Questionnaire	Parent	X	X	X
Personality scale: Ten Item Personality Inventory	Parent		X	X
	Young Person			X
Delinquency	Young Person		X	X
Depression	Young Person			X
Self-harm	Young Person			X
Anxiety	Young Person			X
Self-esteem	Young Person		X	X
Eating disorder	Young Person			X
Maturation	Young Person		X	X
Presence of psychosis	Young Person		X	X
YOUNG PERSON'S PEER RELATIONSHIPS				
Number of close friends	Young Person	X	X	X
Age of friends	Young Person		X	X
Inventory of Peer Attachment	Young Person		X	X
Bullying	Parent	X	X	
	Young Person	X	X	X
FAMILY CONTEXT /PARENTING /PARENT-CHILD RELATIONSHIPS				
Network of relationship inventory: Mother	Young Person			X
Network of relationship inventory: Father	Young Person			X
Parental monitoring: Scale: Sub-scale from Stattin and Kerr Monitoring and Supervision Scale	Parent		X	X
Youth disclosure: Scale: Sub-scale from Stattin and Kerr Monitoring and Supervision Scale	Parent		X	X
Parental control: Scale: Sub-scale from Stattin and Kerr Monitoring and Supervision Scale	Young Person		X	X
Parental knowledge of child smoking, alcohol or drug use	Parent		X	X
Adverse life events	Parent	X	X	
	Young Person			X
YOUNG PERSON'S ACTIVITIES				
Hobbies	Young Person	X		X
Activities for fun	Parent	X		
	Young Person	X	X	X
Chores	Young Person	X	X	
Mobile phone ownership	Young Person	X	X	
Computer in the home	Young Person	X	X	
Access to the internet	Young Person	X	X	
Pocket money	Young Person		X	X



Topic	Source	9 years	13 years	17/18 years
Participation in sports and activities and if they are paid for	Parent	X		
	Young Person		X	
Volunteering	Young Person			X
Social media	Young Person			X

10.2.3 SUMMARY OF YOUNG PERSON'S COGNITIVE DEVELOPMENT, SCHOOL EXPERIENCE AND PERFORMANCE

Table 10.3 summarises some of the top-level information recorded in the area of educational performance, cognitive development and experience of school.

A large proportion of this information was related to the 17/18-year-old's perception of school, teachers and their experience of the education system as a preparation for life. Much of the information recorded concerned their performance in the Junior Certificate examinations (the first State exams taken by young people in Ireland). Details on the Leaving Certificate examinations were also recorded from the minority of respondents who had already taken these higher level examinations by the time they were interviewed at 17/18 years of age. The subjects taken and the results at both Junior and Leaving Certificate levels are extremely important in understanding the paths taken by young people in early and later adulthood. Details on issues around early school leaving (where relevant); access to extra tuition leading up to the Leaving Certificate examinations; parental expectations on how far the young person would progress in the education system; their attitudes to school and relationship with teachers are all key to understanding subsequent outcomes.

Three small direct assessments of the young person's cognitive development were also administered in the course of their interview. These were a semantic fluency test known as the 'animal naming test'; a vocabulary test and a test of financial literacy or numeracy. These tests capture key cognitive skills related to vocabulary, numeracy and general knowledge, which are foundational to engaging with more complex learning. The tests are different in nature from those administered at 9 and 13 years of age because of the absence of age-appropriate versions of these latter tests. Nevertheless, because competence in language and numeracy was assessed at all waves, it is possible to examine change in the competence of young people in these areas relative to their peers.

The Semantic Fluency Test, otherwise known as the Animal Naming Test, involved the participant naming as many animals as they could think of in one minute. This type of test draws on general knowledge in long-term memory and requires use of executive function to access that knowledge and self-monitor responses for repetitions, acceptable items etc.

A vocabulary test used in the Millennium Cohort Study (and also the British Cohort Study (BCS70)) when respondents were 14 years of age was also used. The task includes 20 words that increase in difficulty from 'quick' to 'pusillanimous'. Each word is accompanied by five other words and the respondent has



to choose which of the five is closest in meaning to the target word. Respondents complete the test on paper with a time limit of four minutes.

Finally, three short questions aimed at testing the respondent's ability to work out relatively simple mathematical calculations were included. The three individual questions have been used with an Irish sample in the Irish Longitudinal Study of Aging (TILDA).

Table 10.3 Young Person's cognitive development, school experience and performance

Topic	Source	9 years	13 years	17/18 years
Attitudes to and performance in second-level education				
Young Person's Education				
Current class in school	Parent		X	
	Young Person		X	X
Junior Certificate results	Young Person			X
Transition year	Young Person			X
Leaving Certificate subjects	Young Person			X
Leaving Certificate results	Young Person			X
Early school leaving	Young Person			X
Parental involvement in education	Parent	X	X	X
Perception of ability	Young Person			X
Extra tuition or help in school	Young Person		X	X
Parental expectation of Young Person will go in education	Parent	X	X	X
Number of books in the household	Parent	X	X	
Attitudes towards school	Young Person	X	X	X
Relationship and Sexuality Education	Young Person		X	X
Cognitive Tests				
Drumcondra Reading Test	Young Person	X		
Drumcondra Mathematics Test	Young Person	X		
Drumcondra Verbal Reasoning Test	Young Person		X	
Drumcondra Numerical Reasoning Test	Young Person		X	
Animal Naming Task	Young Person			X
Vocabulary Test	Young Person			X
Financial Numeracy questions	Young Person			X



10.2.4 SUMMARY OF YOUNG PERSON'S ECONOMIC AND CIVIC PARTICIPATION AND EMERGENCE AS A YOUNG ADULT.

The data collected in the 17/18-year were the first to include any information on the young person's participation in civic society as a young adult in their own right. Table 10.4 summarises the sort of information recorded in this domain. This included issues around the 17/18-year-old's employment experience to date as well as their aspirations for employment in the future. Their sense of identity was probed with information being collected on the extent to which they saw themselves as an adult. Issues around perceived discrimination experienced by the 17/18-year-old was also recorded. Values and attitudes of the young adults were recorded in areas such as their perceptions on which were the most important aspects of their lives; their trust in other people and in the Institutions of the State (such as the Gardaí), education or welfare system or the church, as well as areas of gender equality.

Table 10.4 Economic and Civic Participation / Emerging Adulthood

Topic	Source	9 years	13 years	17/18 years
Young Person's Employment history				X
Occupational Aspirations	Young Person	X	X	X
Adult Identity and extent to which 17/18-year-old saw themselves as adults	Young Person			X
Sense of discrimination	Young Person			X
Importance of areas of lives – family; partners; health; religion	Young Person			X
Belief in the value of work and of being employed	Young Person			X
Volunteering	Young Person			X
Support for gender equality	Young Person			X
Trust in other people	Young Person			X
Trust in State and other institutions – government; gardaí; education and welfare system; the church	Young Person			X

10.2.5 SUMMARY OF YOUNG PERSON'S BACKGROUND, FAMILY AND CONTEXTUAL CHARACTERISTICS

To understand the growth and development of the children and young people it is essential to understand the family circumstances, background characteristics and other contexts of their development. The contextual and background characteristics which were collected in the course of the 17/18-year interview are summarised in Table 10.5.

Table 10.5 Background, Family and Contextual Characteristics

Topic	Respondent	9 Years	13 Years	17/18 Years
Household composition				
Demographic information in respect of each household member	Parent	X	X	X
New entrants to the household	Parent		X	X
Departures from the household	Parent		X	X



Topic	Respondent	9 Years	13 Years	17/18 Years
No. of people living in the household	Parent	X	X	X
Mental well-being				
Parental stress:	Parent		X	X
Depression	Parent	X	X	X
Work-life balance	Parent	X	X	X
Physical health				
Parental health and lifestyle				
General health status	Parent	X	X	X
Current chronic illness	Parent	X	X	X
Pregnancy status	Parent	X	X	X
Dieting, weight perception and activity				
Dieting behaviours	Parent	X	X	X
Physical activity	Parent		X	X
Weight Perception	Parent	X	X	X
Health compromising behaviours				
Smoking behaviours	Parent	X	X	X
Alcohol consumption	Parent	X	X	X
Drug use	Parent		X	X
Marital/Partner relationship				
Marital status	Parent	X	X	X
Marital history	Parent	X	X	X
Current relationship status	Parent	X	X	X
Marital conflict	Parent	X	X	X
Parental relationship: Scale: Dyadic Adjustment Scale	Parent	X	X	X
Details on non-resident parent	Parent	X	X	X
Socio-demographic information and household income				
Parental employment and occupational status	Parent	X	X	X
Household income	Parent	X	X	X
Household deprivation	Parent	X	X	X
Intergenerational deprivation	Parent	X		X
Welfare dependency	Parent	X	X	X
Residential status	Parent	X	X	X
Accommodation type	Parent	X	X	X
Access to garden/common space	Parent	X	X	
Receipt of mortgage supplement	Parent	X	X	
Car ownership	Parent	X	X	X
Parental educational attainment	Parent	X	X	X
Main language spoken in the home	Parent	X	X	X
Parental literacy and numeracy	Parent	X	X	
Religious denomination	Parent	X	X	X
Nationality and citizenship	Parent	X	X	X
Ethnicity	Parent	X	X	X
Quality and perceptions of neighbourhood				



Topic	Respondent	9 Years	13 Years	17/18 Years
Neighbourhood and Community				
Length of time resident in local area	Parent	X	X	X
	Young Person			X
Physical condition of the neighbourhood	Parent	X	X	X
	Young Person	X		X
Safety of the neighbourhood	Parent	X	X	X
	Young Person	X		X
Concern about criminal activity	Parent			X
Intention to continue living in Ireland	Parent	X	X	X
	Young Person			X

The Parent One questionnaire recorded information on the composition of the household in which the 17/18-year-old lived. This included the gender and age of all members, their relationship to both the Young person (the 17/18-year old) and Parent One, as well as the economic status of all members. Reasons for change in family composition since the previous interview were also recorded. These details are important in classifying the type of household and family structure of which the young person is a part, as well as allowing an analysis of family dynamics and, in particular, the emergence of new family forms.

Details on issues related to parental physical and mental health were also recorded, as was information on parental stress, depression, work-life balance/imbalance and its effect on the quantity and quality of family time; dieting behaviours, physical activity and perceived weight; potentially health compromising behaviours such as: smoking, alcohol consumption and taking of illicit drugs.

Information on marital status and changes therein since the previous interview were recorded as well as measures on the quality of the couple relationship (in two-parent families) – using the dyadic adjustment scale. Some details on non-resident biological parents of the 17/18-year-old were also collected.

Broadly-based background socio-economic and demographic information was also recorded: parental employment status; family income, including measures of Social Welfare dependency and of material deprivation; nature of tenure in the household; parental educational attainment, literacy and numeracy; languages spoken in the home; nationality and citizenship and religious denomination and spirituality.

Finally, Parent One (and to a lesser extent the 17/18-year-old) was also asked to provide information on their perception of their local neighbourhood, its physical conditions and their perceptions on its safety and suitability for their family at their stage in the life cycle.

The weight of Parent One and Parent Two (as well as their height, if this was not available from previous interviews) was also recorded by the interviewer using medically approved measuring sticks and weighing scales.



The information recorded in Tables 10.1 to 10.5 above has been presented in terms of main areas or domains of interest for ease of discussion. It is, of course, very important to emphasise that one of the core strengths of *Growing Up in Ireland* is its ability to trace the young people's development across all key domains. Equally, as noted at several points throughout this report, the information in each domain may be viewed as an outcome, explanatory, confounding or mediating variable, depending on the specific analysis being undertaken at any point in time.

It is envisaged that the *Growing Up in Ireland* study will continue to develop and change in an age-appropriate fashion with the young people as they age and so enrich our understanding of the factors which influence their development. Such data form the foundations for effective policy-making and implementation designed to optimise children's wellbeing. The longitudinal nature of the study has already allowed for the production of a wealth of information on contemporary issues and prediction of subsequent outcomes from earlier characteristics.

10.3 CONCLUSIONS

The focus of data collection has clearly shifted with the 17/18-year-olds, both in terms of the nature of the information recorded as well as the main source or respondent for most of the details collected. At 17/18 years of age the young person is much more centrally involved in providing the information him/herself than in the previous two rounds of interviews with this cohort at 9 and 13 years of age. Notwithstanding this change in emphasis and focus, the objectives originally set out for *Growing Up in Ireland* continue to be met through the collection of age-appropriate and policy relevant data. All of the information which is recorded in the study is being made available on an anonymised basis to policy-makers, researchers and other analysts to provide the only large-scale quantitative scientific framework for analysis of the development of children and young people in Ireland today.

With three waves of anonymised data from the older Child Cohort now available, it is possible to build a more complete picture of children's development as they move from middle childhood through adolescence and into early adulthood. With further rounds of data from the study, it will be possible to move to an increasing degree from investigating relationships and undertaking correlational analysis to a more thorough-going causal analysis of the processes underlying developmental trajectories.



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