INDIVIDUAL, FAMILY, SCHOOL AND REGIONAL CHARACTERISTICS AND THEIR INFLUENCE ON THE EXPECTED POINTS AND UNIVERSITY APPLICATIONS OF IRISH SCHOOL LEAVERS

A thesis submitted to the National University of Ireland in fulfilment of the requirements for the degree of

Doctor of Philosophy

by

John Mc Ginnity, BBS, MEconSc

NUI MAYNOOTH
Ollscoil na hÉireann Má Nuad

Department of Economics, Finance and Accounting

& Department of Education

National University of Ireland, Maynooth

Maynooth

Co Kildare

Ireland

June 2012

Research Supervisors: Professor Rowena Pecchenino, Professor Tom Collins, Margaret Hurley and Dr Delma Byrne

Head of Departments: Professor Rowena Pecchenino (Economics, Finance and Accounting), Dr Aidan Mulkeen (Education)

TABLE OF CONTENTS

List of Tables

List of Figures

List of Appendices

List of Abbreviations

CAO	Central Applications Office
ERC	Educational Research Centre
FETAC	Further Education Training and Awards Council
HEA	Higher Education Authority
HEAR	Higher Education Access Route
HEG	Higher Education Grant
HETAC	Higher Education Training and Awards Council
LCA	Leaving Certificate Applied
LCVP	Leaving Certificate Vocational Programme
NCCA	National Council for Curriculum and Assessment
NQAI	National Qualifications Authority of Ireland
NFQ	National Framework of Qualifications
NUI	National University of Ireland
OECD	Organisation for Economic Co-operation and Development
RTC	Regional Technical College
SEC	State Examinations Commission
VEC	Vocational Education Committee

SUMMARY

Participation in higher education is a matter of intense debate as it is a strong determinant of life chances and has an important role in the development of a nation's society and economy. Entry into higher education is competitive and selective, with established research indicating that students from higher socio-economic backgrounds are more likely to access higher education than those from lower socio-economic backgrounds. One of the policy objectives of successive Irish governments has been the attainment of equality of opportunity in admission to higher education.

This thesis examines how individual, family, school and regional characteristics may influence the college participation decisions of young people by exploring how these characteristics affect their Leaving Certificate points expectations and subsequent applications to university. The thesis considers trends in participation rates to higher education, existing research evidence and policy debates as well as providing a theoretical and conceptual framework which underpins the study. The rationale for undertaking the study is explained and a set of research questions are addressed. While there is a body of work which has considered participation in higher education in Ireland, this is pioneering research which considers points expectations and university applications using in-depth individual and school level data.

The thesis is based on a unique survey undertaken specifically for this research consisting of an in-depth questionnaire completed by 5,174 students in 105 nationally representative schools in the Republic of Ireland, which was 10% of

the cohort. The thesis considers the influences which arise through variation in school type and composition, parental educational and occupational background as well as other attributes such as gender, participation in Transition Year and private tuition (‘grinds’), engagement in part-time work and also peer effects. The thesis also examines school to university distance and province effects using geo-coding to ascertain the impact of distance in respect of applications to university.

Economic models are detailed and subsequently tested using this unique data, having derived a range of dependent and independent variables. The results from the models are examined, in the context of national and international research, before drawing conclusions and discussing the policy implications which arise.

ACKNOWLEDGEMENTS

There are a number of people I wish to acknowledge for their support and encouragement while I attempted to balance research work, a full-time job and a young family.

Firstly I wish to express my sincere gratitude to my supervisors Professor Rowena Pecchenino, Margaret Hurley, Professor Tom Collins and Dr Delma Byrne for their direction and questions which made me reflect at every stage. They were a positive influence every step of the way. Through their guidance I gained a deeper knowledge of many different disciplines and approaches to thinking, all in the context of a challenging and stimulating approach. Professor Denis Conniffe, who chaired the Ph.D. group in the initial years in the Department of Economics, Finance and Accounting at NUI Maynooth, was an inspiration. He had a gift which always made the complex seem easy. Sadly, he passed away in 2011 and is a huge loss to the academic community.

The original idea for the research arose from discussions with the former Head of the Department of Economics at Maynooth, Professor Gerry Boyle who advised in relation to the survey methodology and encouraged me to commence the research in its early stages. Professor James Williams in the Economic and Social Research Institute provided invaluable advice and assistance in relation to the student survey. The University's Registrar, Dr David Redmond, and other colleagues in the Registrar's Office have been a source of encouragement throughout the thesis for which I am extremely

grateful. I also wish to express my gratitude to all the members of the Department of Economics, Finance and Accounting for their support.

To my parents and siblings who made huge sacrifices to ensure that I had access to educational opportunities, during tough times. Lastly, I wish to pay a special tribute to my wife Julie for her deep friendship and love over many years. To our children Eoin, Tom and Kate who make everything worthwhile as well as giving us both much more in return than they will ever know.

CONFERENCES AND PUBLICATIONS

I presented the research proposal for the thesis at the NUIM Postgraduate Colloquium, 2006.

I presented Chapter 4 at the Irish Economic Association Annual Conference, Mayo, 2008

Chapter 4 titled “Explaining Variation in Irish Students’ Perception of their Expected Leaving Certificate Points” is under review for publication by The Irish Journal of Education.

Chapter 5 titled “Individual, Family, School and Regional Factors affecting university applications in the Republic of Ireland” was presented at the Irish Economic Association Annual Conference in Limerick, April 2011.

Chapter 5 titled “Individual, Family, School and Regional Factors affecting university applications in the Republic of Ireland” is being submitted for publication in the Economic and Social Review.

Chapter 1

Introduction

1.1 Overview and Context of the Study

This thesis examines the influences of individual, family, school and regional characteristics which impinge on the higher education decision making of a nationally representative sample of Irish school leavers in 2004/2005, whilst in second level education. It considers existing research evidence both from a national and international perspective across a range of components which may influence the higher education intentions or expectations of school leavers. Specifically, the thesis considers the decision-making process of students in the final year of senior cycle through an exploration of their expected performance in the Leaving Certificate examination, and the factors associated with applying to university. An examination of expectations and decision-making processes while at second level contributes to the existing body of research on higher education access, while also addressing a substantial gap in the Irish literature.

The overall context is set out in this early chapter which considers the patterns of participation in Irish higher education, taking account of the expansion of the higher education sector over the last thirty years, while examining the reasons as to why this increase has not necessarily meant an equal distribution of places across the social classes. This chapter also sets out a synopsis of the college admissions process, the rationale for undertaking the study as well as

the theoretical and contextual framework for it, and concludes by posing key research questions which the thesis addresses. Entry to higher education in Ireland is competitive and selective, and we analyse in subsequent chapters the variables which explain differences in Leaving Certificate points expectations of students at individual, family, school and regional level. Drawing on the established body of empirical and theoretical research, we then go further to explain who does and does not apply for university admission

The influences of important individual characteristics such as private tuition outside of school ('grinds'), school experiences (such as Transition Year), gender, part-time work and prior academic achievement are examined, as well as the role of parental educational levels and occupations in higher education decision making. At the school level the thesis considers the influence of school characteristics such as school size, sector and school socio-economic composition, as well as the regional and provincial dimensions of the school attended and their influences on points expectations and university applications. An important aspect of the thesis is to take account of the composition of schools in terms of the social mix of students from varying socio-economic backgrounds in a nationally representative sample of Irish Leaving Certificate students. Having considered the context, empirical and theoretical literature, explored the student survey responses, examined both the Leaving Certificate points expectations and university applications, the thesis concludes with future recommendations for policy directions.

1.2 Central Research Questions

A number of research questions have guided the thesis. In essence, the research addresses key questions relating to the factors which influence the higher education intentions and expectations of Irish second level students. The research considers the influences of a number of individual, family, school and regional characteristics on Leaving Certificate points expectations, as expected points are likely to play an important role in the decisions which students and their parents make in respect of progression to university.

The research questions consider both key influences on Leaving Certificate points expectations of students and the factors which affect their decision as to whether or not to apply for university. Specific research questions include:

- Are individual characteristics such as Transition Year participation, private tuition outside of school ('grinds'), part-time work, gender, peer effects and prior academic attainment key determinants of the higher education intentions of school leavers?
- What influence does the type of school which a student attends have on the Leaving Certificate points expectations and application patterns of young people applying to university? Specifically, what is the influence of enrolment in a DEIS school on these outcomes?
- Is the distance from a school to a university a key determinant in the points expectations and application patterns of students?
- Combining school, region and family attributes, such as parental occupation and education levels, what are the dominant factors which

influence students' expected points and college application profile? What is the relative importance of individual, family, school and region in the decisions which young people make regarding their post second level school destination?

- What are the policy implications which derive from the research at national level, for higher education as a sector and for individual institutions within higher education?

1.3 Higher Education in the Republic of Ireland

In order to understand the higher education framework in Ireland as it exists today, it is necessary to first consider the historical development of the sector, how it has expanded in recent years across the binary structure on which it is based as well as considering the differences which exist in terms of the socio-economic profile within the sector.

Historical development of the HE sector

Participation in higher education matters for both individuals and society and therefore attracts serious debate in social, economic, and political spheres. In Ireland, there are approximately fifty colleges offering courses at sub-degree, degree and postgraduate level. The majority of student registrations occur within the university sector, where there are eight universities, some of whom have recognised colleges of education and art affiliated to them. Six of the universities were established during the 19th century or before, while two came into existence in the late 20th century. From the late 1960s Regional Technical Colleges (RTCs) were set up to offer sub-degree courses in technical areas and

their mission was to provide courses to cater for regional labour markets and to promote economic development at the local level (Clancy 2008). Over the period 1992-2006, these colleges were re-designated as Institutes of Technology (IoTs), of which there are now thirteen, and their function has evolved considerably in that they now also offer degree and postgraduate courses across a wide range of disciplines, most notably extending the provision to areas in social sciences and humanities more recently, which traditionally was the preserve of the university sector.

Recent developments have taken place whereby the Higher Education Authority (HEA) has set out the process and criteria for the designation of a Technological University, in a publication '*Towards a Future Higher Education Landscape*' (2012), based on the previous '*National Strategy for Higher Education to 2030*' (Department of Education and Skills, 2011). The document also signals that the Irish State intends to reduce funding for smaller colleges which do not move towards affiliating with larger institutions given their inability to take advantage of economies of scale.

Expansion of the Higher Education Sector

Student numbers in higher education in Ireland have risen dramatically from 20% of the relevant cohort in 1980, to 44% in 1998 and to over 55% by 2004 (O'Connell et al. 2006). During that period, the number of full-time higher education places (excluding private colleges) grew from 41,000 in 1980 to 135,000 in 2004. The increase may be partly explained by rising numbers through secondary school, coupled with increased retention at second level as

well as growing numbers of mature students entering third level. Expansion in the Institute of Technology sector was greater than in the university sector, with the number of Institute places increasing by 388% compared to 174% in the universities (Mc Coy and Smyth 2010). In respect of gender, the profile in the early 1980s was that more males attended higher education, especially so in the case of the IoTs, but this had equalised by 2006, with female participation increasing significantly in both sectors. The increase in the IoT sector was partially as a consequence of the broader provision of courses in business and humanities which had a higher proportion of female entrants than their other existing courses.

The broader Irish economic context has changed over the period of the last thirty years, with the 1980s being a period characterised by high unemployment and emigration, through to an improved economic growth period through the mid-1990s to mid-2000s which led to higher levels of exports, falling unemployment, rising living standards as well as net inward migration from other countries, to a more recent period marked by a decline in the construction and retail sectors, coupled with reductions in public expenditure, rising unemployment and a return to emigration (Kirby 2011). Some sectors such as foreign direct investment, especially in the area of pharmaceutical and technology exports have managed to stay immune from this downturn in Ireland.

Binary Higher Education System

Ireland has a binary system of higher education designed to ensure maximum flexibility and responsiveness to the needs of students and to the wide variety of social and economic requirements. However, within each sector and between the two sectors of higher education, a diversity of institutions offer differing types as well as levels of courses. The Universities are essentially concerned with under-graduate and post-graduate programmes, together with basic and applied research. The main work of the Institutes of Technology is in sub-degree and degree programmes at Levels 6, 7 and 8, with a smaller number of postgraduate programmes and a growing involvement in regionally orientated applied research.

Entry to each college of higher education within the binary system in Ireland operates on a *numerus clausus* basis such that applicants are ranked in terms of grades achieved in the Leaving Certificate examination, which marks the end of second level education. Grades are then converted to points, with the highest ranked candidates receiving offers of places. In many instances students need to have attained a prerequisite grade in their final school examinations in certain subjects if they intend pursuing a course in a particular discipline e.g. a pass in a science subject to undertake a science course.

Class Inequality at entry to Higher Education

A question which may arise is that, while acknowledging that there has been a narrowing of the differential gap between the social classes in relation to educational attainment and participation, can we explain how it is still the case

that a participation gap persists in terms of social class? The following table indicates the rate of change in participation levels by socio-economic status, from the mid-1990s to the mid-2000s, from which the 'Other Non-Manual' group's decline in participation rates is noteworthy in comparison to the other gains.

Table 1.1: Participation in Higher Education among Senior Cycle Leavers by Parental Socio-Economic Background

	1997/98	2002/04	2006/07	Average
Farmer/Other Agricultural	47.0	46.5	44.0	45.8
Professional	64.7	62.6	63.4	63.6
Employer/Manager	57.5	53.0	52.7	54.4
Intermediate Non-Manual	46.2	47.9	57.6	50.5
Other Non-Manual	41.7	34.8	31.3	35.9
Skilled Manual	36.2	42.3	48.6	42.4
Semi-unskilled Manual	38.2	32.9	37.9	36.4
Non-employed	31.7	28.6	38.1	32.8
Total	45.9	51.0	45.6	

Source: Byrne, D. and Mc Coy, S. "Class and Stratification Analysis – Unsolved issues and new developments", Forthcoming in *Comparative Social Research*, Vol 30, 2012-13.

While there have been increases in working-class participation in Irish higher education, the main increases for students from lower socio-economic backgrounds have been in the non-university sector (Clancy 1995, Mc Coy and Smyth 2010). In more recent work, Clancy and Wall in *The Social Background of Higher Education Entrants* (2000) show that even as the number of places in university has expanded, only 25% of the relevant population of unskilled manual workers and semi-skilled manual workers had participated in higher level education. By contrast, one half of the relevant population of salaried employees and lower professionals and 75% of the employers, managers, higher professionals and farmers participate in higher level education. Later work on the same theme published by O'Connell, Mc

Coy and Clancy (2006) which considered trends from the mid 1990s to early 2000s using school leavers surveys as well as a dedicated survey of higher education entrants found persistent over-representation of the children of higher professionals, yet improved participation rates over the period by children of manual workers. In summary, they concluded that the Higher Professional and Farmer Socio-Economic groups accounted for a greater share of new entrants than their share of the population, while the Employer and Manager; Lower Professional, Skilled Manual and Own Account groups were roughly equal to their share of the population. However, semi-skilled and unskilled manual groups, as well as the other non-manual group accounted for a smaller share of new entrants than their share of the population; further evidence of under-representation by lower socio-economic groups.

It could be argued that the 'two-tier' binary system allowed for increases in the numbers of students from disadvantaged backgrounds within higher education, while not disturbing the relative position of the 'first-tier' institutions, with the universities being the sector for more socio-economically advantaged students. This scenario has been posited by Shavit and Blossfeld (1993) in their study of the patterns of higher education participation in 13 countries. More generally, Goldthorpe (2007) states that 'What … is generally *not* found is any clear and compelling evidence of a *generalised, sustained and substantial* decrease in class differentials in educational attainment concomitant with the development of modern societies ..' (p. 29). This relative imbalance is also supported in the work of Mc Coy et al. (2010) in examining the participation of the non-manual group. The authors found that while there had been some declines overall in

inequality in total entry to higher education, relative entry to university education was still strongly structured by social class. In a separate paper, McCoy and Smyth (2010), in a study of participation rates from 1980 to 2004, conclude that '*Young people from higher professional backgrounds are found to be 6.4 times more likely than those from semi/unskilled manual backgrounds to enter university across all periods.*' (p.252). This compares with a ratio of 1.9 in the case of higher professionals to semi/unskilled manual backgrounds in Institutes of Technology during the same period. After controlling for results obtained in the Leaving Certificate, there is a reduction from 6.4 to 3.9 times in the case of the university admission for higher professional groups compared to semi/unskilled manual backgrounds. Such findings may be in keeping with the theory of maximally maintained inequality as espoused by Raftery and Hout (1993) which suggests that middle-class groups benefit most initially from enhanced numbers of places overall at third level, and that the relative position of working class students only improves at the point when the middle class has reached saturation. They argue that the advantaged group are better equipped to take advantage of any new educational opportunities which arise. In saying this, Jonsson, Mills and Muller (1996) do find some decline in class inequalities in attainment in primary and second level over time in Sweden, while Lucas (2001) examining American data finds that the improved participation may be in the lower track of institution type. This is similar to a view espoused by Becker and Hecken (2009) whereby they posit that working class students are 'diverted' away from university to alternative forms of higher education due to their negative estimates of prospective success in university education.

In explaining class inequality, a further view is that parents within the advantaged classes place a higher value on education than parents from less advantaged classes and are also better resourced and better equipped to assist their children. International research has indicated that working-class young people tend to be more debt-averse than middle-class students (e.g. Dynarski 2003, Callender and Jackson 2005). Denny (2010) considers the relationship between the abolition of tuition fees in the Republic of Ireland and the objective of promoting educational equality and finds that the fees reform did not have as significant effect on this objective as was intended when the policy was introduced. He uses the Economic and Social Research Institute's School Leavers Survey and assesses the change in socio-economic gradient (SES) of entrants to higher education to ascertain the change in the profile of admissions, and concludes that '*for young people with a low SES background in Ireland who wish to progress to university, the dice are firmly loaded against them*' (p.14). Similarly, Mc Coy and Smyth (2010) find no indication that the removal of tuition fees in 1996[1] boosted improved equalities in higher education participation over and above the effects of the expansion of higher education places. They did find an increase in the relative proportions of those from lower professional and farm families, with higher professionals initially increasing to almost saturation and then declining marginally. Of note also was the increase in participation by females initially in universities due to higher grades. In the Institutes of Technology increases in female participation was evident as a consequence of broader course provision, especially for those

[1] The Free Fees Scheme, for publicly funded third-level courses, was introduced in 1996 which entailed a reduction in tuition fees by 50% for students in the 1996/97 academic year and down to a small student services charge for 1997/8. This charge has increased since then to current levels for 2012/13 of €2,250.

from farming backgrounds due the proximity of regional Institutes with lower accommodation costs, allowing for daily commuting. It should be said that the wider economic context in the period mid-1990s to mid-2000s, especially in relation to the availability of large numbers of jobs, both unskilled and skilled, in the construction sector, may have been one factor in militating against a larger proportionate increase in third level participation by working class students. Another factor may have been the increase in indirect college costs, for example rental accommodation, which increased during the period and may have been a barrier to entry. In this context, Mc Coy et al. (2010) found evidence that a number of non-participants in higher education from the non-manual group were disaffected from school at an early age. Poor guidance at school could compound this problem. Given that such students could rarely rely on their parents or peers for advice on higher education, they were dependent ever more so on the guidance and other school supports which were not at the required level. Coupled with these social and cultural factors, the cost of higher education was also seen as an impediment both from the point of view of insufficient knowledge regarding financial supports and a view that the costs would be too great, given the possibility that there may be alternative opportunities in the labour market.

1.4 Second Level Education in the Republic of Ireland

To understand the importance of individual, family and regional characteristics on the points expectations and university applications of Irish

school leavers it is important to be aware of the school context for students at second level which may have a bearing on those decisions.

Attainment at Second Level

Education in the Republic of Ireland is free at all levels for EU citizens (in the case of higher education, a residency criteria in the EU also applies)[2]. Most students attend and complete secondary education, with the most recent data available indicating that 87.7% of 2004 entrants to second-level had completed senior cycle by 2010, which was a rise from 81.3% for the 1996 cohort.[3] However, it should be noted that the average completion rate by students amongst schools in the Department's DEIS scheme is only 73.2%, almost 15% lower than the national level. In this context, Byrne and Smyth (2010) find that '*rates of early leaving in Ireland are strongly structured by gender with males over-represented in the early leaver group'* (p.172), estimating it to be approximately 7-8 percentage points higher. They found patterns of early school leaving to be highly structured by social class, with those from semi/unskilled manual backgrounds 2.7 times more likely to drop out of school than those from higher professional backgrounds. Within the case study schools they examined, they found that drop-out rates tended to be higher in schools with a predominantly working-class intake and lower among mixed and middle-class intake schools which they deduce reflects the impact of social mix on early school leaving. However, it is noteworthy that they found variation in schools with the same type of student intake indicating that schools differed in how they counter disengagement, underachievement and

[2] Families are required to pay for school uniforms, books and school transport.
[3] Source: Department of Education and Skills (2011). *Retention rates of pupils in second level schools - 1991 to 2004 entry cohorts.* (p.3).

early school leaving amongst their pupils. Allied to this, Smyth (1999) finds that there is a differential distribution of students across schools. Students in predominantly working-class schools have lower levels of academic performance and higher rates of early leaving, all else being equal. Sometimes this is compounded in school organisation where there is streaming, i.e. allocating students according to their academic 'ability', which can result in negative teacher-student interactions and low expectations (Byrne and Smyth 2010).

The Irish second-level education sector, which is the predominant entry pathway to higher education, is comprised of secondary, vocational, community and comprehensive schools. Each of these sectors provides the certificate examinations, e.g. Junior and Leaving Certificates, prescribed by the Department of Education and Skills[4] and are subject to its inspection. The Junior Certificate marks the end of the first three years of secondary education and is placed at Level 3 on the Irish National Framework of Qualifications. The Leaving Certificate and its various programmes is placed at Levels 4 and 5 on the National Framework, and is the final course in the Irish secondary school system[5]. It takes a minimum of two years preparation, but an optional Transition Year in some schools means that for some students it takes place three years after the Junior Certificate. The Leaving Certificate award affords progression to programmes leading to a further education and training award

[4] On May 1st 2010, responsibility for a large percentage of the FÁS budget (Foras Áiseanna Saothair – Ireland's National Training and Employment Authority) was transferred from the Department of Enterprise, Trade and Employment to the Department of Education and Science. The Department of Education and Science was renamed the Department of Education and Skills as a result of this change.
[5] These programmes include the Leaving Certificate Established (LCE), the Leaving Certificate Vocational programme (LCVP) and the Leaving Certificate Applied (LCA).

at Levels 5 and 6 or to a higher education and training award at Level 6 or higher. Both the Junior Certificate and Leaving Certificates are awarded by the State Examinations Commission (SEC).

Second level education in the Republic of Ireland is provided in a range of school types. These schools vary in establishment history, governance and board of management structure, and in many instances in relation to their student intake, which are outlined below, with each playing a different role in Irish educational history and second level provision. Table 1.2 provides a summary of these different attributes at school type level.

Table 1.2: Establishment, Governance, Board of Management Structure and share of cohort by School Type

School Type	**Voluntary Secondary**	**Vocational Schools/ Community Colleges**	**Community Schools**	**Comprehensive Schools**
Established	From 17th Century- Present Day	VEC Act 1930	1960s	1960s
Governance	Privately Owned and Managed	Owned by State and managed by local VECs	Financed entirely by Dept. of Education & Skills	Financed entirely by Dept. of Education & Skills
Composition of Boards of Management	8 persons – 4 Diocesan 2 Parents 2 Teachers	Sub-committee of VECs. 3 VEC 3 Religious 2 Teachers 2 Parents	10 Members 3 VEC 3 Diocesan 2 Parents 2 Teachers	2 Diocesan Reps 1 VEC CEO of VEC 2 Parents 2 Teachers
Approximate % of 2nd Level Students	55%	30%	15%	

Smyth (1999) examined variations in Leaving Certificate results across various school types and concludes that '.. *raw grade differences reported between pupils in the different school types reflect differences in the gender, social class and ability mix of the pupil intake rather than a sectoral effect per se.*' (p.71). A similar conclusion is drawn following an examination of the association between school type and Junior Certificate results. Furthermore Smyth and Banks (2012) in locating Leaving Certificate achievement within the context of much longer term processes occurring over the entire second-level, find a wide degree of variation between students of similar ability levels at Junior Certificate. They also concluded that when it came to Leaving Certificate, students in middle class schools see higher education as a natural follow-on and do not consider other options, while students in working class schools receive much less encouragement to aim for higher education and indeed, in one of the schools they studied, found that students were advised to be more 'realistic' in their plans which had the affect of reducing their aspirations to fulfill their true potential. Smyth et al. (2011), in a longitudinal study of students going through second-level, find other examples of where school processes can matter such as the downstream effects from students' negative interactions with teachers in the early years of secondary school showing that subsequently these students were less likely to intend to go onto higher education. They also have increased risks of early school leaving. Additionally, the use of streaming whereby students are allocated to 'higher' and 'lower' ability classes for all of their junior cycle subjects, was found to result in significantly lower Leaving Certificate grades for those students in the lower stream classes, yet this was without any corresponding achievement

gain for those in the higher stream classes. They also draw conclusions similar to those in Mc Coy et al. (2010) in respect of participation patterns. These show a clear social gradient whereby those students from professional backgrounds naturally aim to progress to university, which contrasts with students from working class backgrounds attending working class schools who are much less likely to plan to go to university even controlling for prior academic attainment. Added to this is the variation which Byrne and Smyth (2011) find in relation to parental engagement with the school process. Parents possessing relatively lower levels of education dependent on informal contacts with the school through their sons and daughters as compared with parents with higher education attainment using more formal channels as and when needed.

Addressing Disadvantage in the Second Level System

Many of the Irish universities established links with DEIS schools to provide a designated pathway for students from lower socio-economic backgrounds to access university, which subsequently received funding support through the Higher Education Authority's Strategic Initiatives Fund[6]. In the Republic of Ireland, within the above broad categories of schools, there are a number of schools which are designated as disadvantaged under the Department of Education and Skills DEIS Scheme (Delivering Equality of Opportunity in Schools).[7] This scheme is an action plan for educational inclusion, from early childhood through to adult education provision, supported by the Department of Education and Skills. It is the key policy intervention by the State to address

[6] O'Reilly, P. (2008). "The evolution of university access programmes in Ireland." UCD Geary Institute.
[7] '*Deis*' is the Irish word for 'opportunity'.

shortcomings in educational attainment by students from lower socio-economic means. It is important to note that while DEIS schools made up the majority of linked schools in university access programmes initially they were not exclusively so. Trinity College, for example, developed links with both DEIS and non-DEIS schools in its catchment area, something that is now a feature for all colleges participating in the scheme.

There is a standardised system which identifies levels of disadvantage and provides for an integrated school support programme. The process of identifying schools for participation in the DEIS scheme was managed by the Educational Research Centre (ERC) on behalf of the Department of Education and Skills, with the programme being supported by quality assurance work co-ordinated through the Department's regional offices and its inspectorate.

The ERC's work was guided by the definition of educational disadvantage in the Education Act (1998) as '…impediments to education arising from social or economic disadvantage which prevent students deriving the appropriate benefit from the education in schools'[8]. For example the ERC identified the socio-economic variables (e.g. percentage of parental unemployment, percentage living in local authority accommodation) that collectively best predict achievement and these variables are used to identify schools for participation in the School Support Programme.

[8] Houses of the Oireachtas - Dáil written answers. 3 February 2009.

There are currently 865 schools in DEIS, comprising 195 second level schools as well as 670 primary schools which include 198 urban band 1 (higher level of disadvantage), 144 urban band 2 (lower level of disadvantage) and 328 rural primary schools[9]. These schools derive additional targeted supports over and above other schools which are intended to respond to the effects of socio-economic deprivation. Although Budget 2011 announced a range of reduced expenditure, including a reduction in teacher numbers, the actual changes are now the subject of an examination by the Department of Education and Skills to assess the impact such changes would make before making a final policy decision.

The criteria used to determine a disadvantaged school, in addition to the above, are based on student retention to Junior Certificate (after 3 years of secondary education) and Leaving Certificate (a further 2 or 3 years at secondary level), as well as attainment levels in these examinations. Attendance, literacy and numeracy levels and percentage progressing to Further and Higher Education are other indicators which are taken into account to establish the profile of the school. Other qualitative measures are considered such as parental and other community involvement in the school. A key indicator derives from the percentage of students in a school who are eligible for a Junior Certificate examination fee exemption (2012 normal charge of €109), which is approved by the State Examinations Commission. The waiver is made on the basis that the student is from a household which has a medical card. In this context, Sofroniou, Archer, and Weir (2004) use the

[9] Source: Department of Education and Skills website, April 2012.

presence or absence of a medical card as a measure for student socio-economic background, in a study of national assessments for reading and mathematics at primary level. They also consider Junior Certificate results in English and mathematics from 1998, and find that the student achievement measures decline in a '*continual and linear manner*' (p.69) as the percentage of students in the school from families holding medical cards increases. Additionally, they deduced that boys were more adversely affected than girls by being in a school with large concentrations of students from disadvantaged backgrounds. Overall, they found evidence of a social context effect, arising from greater levels of disadvantage coming together in a school, which provided support for the continuation of a policy of identifying and targeting schools with concentrations of disadvantage so as to address such problems.

The Department of Education and Skills produced a report in 2011 which evaluated the school planning processes in DEIS schools having examined activity in 18 DEIS post-primary schools. It considered a range of areas such as improvements in attendance, literacy, numeracy yet concluded in relation to objectives set out in respect of processes to improve examination attainment that '*Overall findings regarding planning processes to improve examination attainment were disappointing. While half the schools had effective strategies in this area, only 4 schools (22%) had set suitable targets and 5 had successfully implemented and made progress in this area.*' (p.31). It may be the case that this in part explains the reason why there are lower numbers of students from DEIS schools progressing to third level. Smyth and Calvert (2011) draw a distinction between students attending a DEIS school who are

not encouraged to attend college open days as this may be seen by some teachers as avoiding classes which is in contrast to a middle class school they studied where the school made arrangements with a university to ensure students had the required information to apply to university, yet the students in both schools had similar Junior Certificate results. Similarly, Byrne and Smyth (2011) ascertain variations at the parental level which indicate that the parents of the students in middle class schools have gained knowledge as to the best channels to communicate effectively with the school which is not the case for the working class parents with sons and daughters in the socio-economic disadvantaged schools. Both Mc Coy et al. (2006) and Smyth and Banks (2012) detail the quality differences which can occur as between the guidance provision which DEIS students have access to which is at a lower level of support when compared to the services and school culture. Conversely this guidance support encourages students from more affluent backgrounds, attending middle class schools to see progression to university as a given. This is explored further in chapters 4 and 5.

1.5 The College Application and Admissions Process in the Republic of Ireland

In the Republic of Ireland, students indicate their college choices in advance of knowing their actual school leaving results, which are not released until August annually. Unlike in other countries e.g. Spain, where there are two separate examinations, one for school educational completion purposes (Bachillerato) and another for college admission purposes (Selectividad), in the Republic of Ireland there is a single diet of examinations, the Leaving Certificate, which provides for both school certification and college admission.

The Irish Leaving Certificate Examination is the same for all students irrespective of where they live in the country with the tests administered on the same day and time in all examination centres nationwide. This is in contrast to some other countries e.g. in the United States, where the assessment process to attain the High School Diploma can differ between candidates in different States and schools.

A central aspect of this thesis is an examination of the choices students make in relation to their plans after completing their second level education. Many students apply for higher education and, in the Republic of Ireland, their application is processed by a central agency which acts on behalf of the participating colleges and universities (approximately 45 higher education institutions). These higher education institutions delegate the task of processing centrally their application for admission to first year undergraduate courses to the Central Applications Office, which is charged with managing the process in an equitable and fair manner. The institutions retain the function of making the decision on each admission. The Central Applications Office was incorporated in January 1976, with nine participating colleges and universities. The first students admitted through the system were for courses commencing in 1978. It is a not-for-profit, limited by guarantee company, based in Galway, which is independent from the State[10]. Its membership is representative of the higher education sector and it is governed by a Board of Directors drawn from the membership. The Board of Directors includes the Registrars from the seven universities and the Dublin Institute of Technology,

[10] A company limited by guarantee is incorporated without share capital, and in which the liability of its members is limited to the amount each one of them undertakes to contribute at the time the firm is wound up.

as well as two Directors from the Institute of Technology sector, and representatives from the Higher Education Authority and the Colleges of Education. The CAO is financed by application fees and it does not receive any State support.

Applicants to the Central Applications Office apply for programmes in either of two lists. One list encompasses awards at Level 8 (Honours Bachelor Degrees, normally of three or four years' duration) and the other list includes awards at both Level 7 (Ordinary Degree, normally of three years duration) and Level 6 (Higher Certificate, normally of two years duration). Each of the awards at Levels 8, 7 and 6 can be offered by a recognised higher education institution, which is a participating institution within the Central Applications Office. A course has to be accredited by an Irish validating body to be included in the CAO Handbook of courses. The CAO offers places to students who meet the minimum requirements for a course for which they have applied. Students also have to meet any special programme requirements which may include particular subjects with a specified grade e.g. a grade C3 or higher in Honours Mathematics for Engineering. Admission is competitive, and normally given that there are larger numbers of qualified applicants than places available on courses, places are offered to those students with the highest score in the points allocation process which is outlined below in Table 1.3,[11] as long as they have also met the matriculation and special programmes requirements for the course.

[11] In addition to the three criteria stated, some higher education institutions have a minimum age requirement for admission. Also for some courses which involve access to young people or vulnerable adults, the offer of a place may be subject to a satisfactory Garda (police) Clearance process.

The Leaving Certificate examination is taken in June and results are issued in August. The maximum points a student can attain is 600[12] from six subjects, with a maximum score of 100 points for the highest grade in a Higher Level paper. Grades extend from Higher Grade A1 (100 points) through to Ordinary Grade D3 (5 points) for each subject as can be seen in the Table 1.3 below.

Table 1.3: Irish Leaving Certificate points allocation for grades at Higher and Ordinary Levels

Percentage	Grade	Higher Level	Ordinary Level
90+	A1	100	60
85-89	A2	90	50
80-84	B1	85	45
75-79	B2	80	40
70-74	B3	75	35
65-69	C1	70	30
60-64	C2	65	25
55-59	C3	60	20
50-54	D1	55	15
45-49	D2	50	10
40-44	D3	45	5

Grades below D3 i.e. Grades E, F and NG (no grade) are considered 'fail' grades and no points for entry are awarded. Students must present their points on the basis of a single sitting but they can combine a number of sittings to meet basic minimum academic entry standards for an institution as well as meeting any special programme/subject requirements for a specific course. Attainment in the Leaving Certificate is structured by social class, gender and school context, and this body of research will be addressed in more depth in Chapter 4.

[12] From entry in 2012, and for a 4 year pilot phase, there is an additional bonus of 25 points for students who obtain a pass (grade D3 or better) in the Higher Level Mathematics paper in the Leaving Certificate.

Recent discussions have taken place regarding a change in the CAO admissions process following a call for a debate by the Minister of Education and Skills. Both the National Council for Curriculum and Assessment (NCCA) and the HEA have facilitated debate in this area, commissioned relevant research to inform the debate and organised a dedicated conference in September 2011 which brought together a range of stakeholders to obtain feedback from the research as well as considering possible amendments at both second and third level to assist students in making the transition between second and third level. Some of the suggestions include introducing a separate test(s) which would replace the Leaving Certificate as a basis for admission so as to 'de-couple' the Leaving Certificate from college admission, the consideration of personal statements from applicants so they would receive credit for extra-curricular activities and another suggestion which would be to award points to applicants based on a percentile score in each subject rather than points for grades as currently occurs. The latter proposal is an attempt to address anecdotal evidence that students take particular subjects which they perceive as 'easier' so to obtain the highest points possible for the effort required. Possible changes in the CAO mechanism for the assessment of applications is currently under consideration by the participating third level colleges. This issue is discussed further in the subsequent section, incorporating the criticism which has emerged regarding the instrumental nature of the school experience, for both students and teachers, due to the CAO points system as it currently is.

1.6 State Education Policy and Existing Policy Debates

Second-Level

At a policy level, the question arises as to which agencies of the State's apparatus have the remit to provide a high standard of second level education, assess outcomes and fund third level education for students who wish to progress? More specifically, what policy interventions have emerged to provide for a more equitable allocation of places at third level for students from lower socio-economic groups? Responsibility for education policy at the primary and secondary levels rests with the Department of Education and Skills, which administers all aspects of educational policy such as curricula and syllabi. The curriculum for Ireland's post-primary schools is determined by the Minister for Education and Skills who is advised by the National Council for Curriculum and Assessment. There is a centrally devised curriculum which is nationally assessed by the State Examination Commission which is responsible for the development, assessment, accreditation and certification of Irish second-level examinations.

Recent debate has emerged regarding the suitability of the Leaving Certificate curriculum and its assessment methodology and some question as to whether it is 'fit for purpose' as a third level entry mechanism. Areas of criticism include that it encourages rote learning, and that it creates a school environment whereby both teachers and students concentrate solely on the assessment at the expense of students' wider educational needs, with negative influences, commonly referred to as the 'backwash effect of the points system' (Hyland 2011). Hyland also states that there is anecdotal evidence that students take

subjects they perceive will give them a higher grade at the expense of their innate aptitude and relevance to courses they are considering at higher level, as the distribution of grades per subject are published annually. One consideration is that the structure of the Leaving Certificate encourages students to pay for 'grinds'. There is a view that this disadvantages students from lower socio-economic communities who cannot afford such 'grinds' (Smyth 2008; 2009). Given the fact that it is a high stakes examination, and for most third level courses the only entry pathway, there is evidence that it can cause high levels of anxiety and stress, both at Junior Certificate and Leaving Certificate levels (Smyth et al. 2007; 2011). There are high levels of transparency in relation to the marking schemes and examiners' reports for each subject which is published annually. These in turn create a drive for teachers to 'teach to the test', increasing instrumentalism as well as pressure from students on teachers who deviate from this path. As Smyth et al. (2011) state '*… many middle-class and high aspiring students expressed impatience with, and were critical of, teachers who did not focus on 'what would come up in the exam' … an emphasis on broader educational development or on life skills was seen as irrelevant.'*(p. 225). They recommend that there should be greater continuity in standards expected between junior and senior cycle as some students are of the view that there are large gaps between what is expected for senior cycle when compared to junior cycle which adds increased pressure. This may be achieved through a reduction in the detailed content in senior cycle syllabi given students take a wide range of subjects. In tandem with this is the recommendation that a wider array of assessment methodologies are used which would test for different skills, knowledge and

competencies, which would enhance levels of critical thinking and provide a school setting less directed *'towards shallow rote learning towards deeper more authentic learning experiences'* (p. 236) .

The current Irish Government has initiated a process to review the selection mechanism for entry to higher education in Ireland. Under legislation, universities and Institutes of Technology are responsible for determining their own selection and admissions processes, through their Academic Councils which are statutory bodies. A joint research report was commissioned by the Higher Education Authority and the National Council for Curriculum and Assessment, prepared by Professor Áine Hyland, who previously chaired the Commission on the Points System (1999). Recently she produced a discussion paper titled "Entry in Higher Education in Ireland in the 21st Century" (2011) which had the objective of providing a context analysis for a conference in September 2011. This conference brought together stakeholders from both second and third level. Some of the recommendations being considered include 'de-coupling' the Leaving Certificate as the basis for admission to higher education; using other methods of assessment in addition to the Leaving Certificate or varying the existing selection system. The main recommendation which emerged from the previous Points Commission in 1999 was that there should not be significant changes to the selection mechanism as it was seen as fair, transparent and had the trust of parents and students. One of the factors which justified this recommendation was research for the Commission (Lynch et al., 1999) which did recognise the value of the Leaving Certificate as a predictor of performance at third level.

Higher Education

The Higher Education Authority (HEA) is the statutory planning and policy development body for higher education and research in Ireland. The HEA has wide advisory powers throughout the whole of the third-level education sector. In addition, it is the funding authority for the universities, Institutes of Technology and a number of designated higher education institutions. The Mission Statement of the HEA states that it is *"To foster the development of a higher education sector which is* ***accessible to all potential students*** *and which is recognised internationally for the high quality of teaching, learning and research and which has the capacity to address the changing needs and challenges in our society"* (author's emphasis). One of the principal functions of the HEA is to promote the attainment of equality of opportunity in higher education and the democratisation of higher education.

Policy interventions to provide for a more equitable allocation of places at third level for students from lower socio-economic groups

There is no doubt that the numbers of students attending third level institutions has increased dramatically in recent years. However, the question arises, how successful has the State's aim in attaining the democratisation of higher education and the achievement of the stated objective above which seeks to provide equality of opportunity? Could it be the case that the expansion of places in higher education only compounds inequality? Could it be the case that there are disproportionate opportunities to middle class families which could result in widening social class inequalities? Can we expect that increased places will result in higher participation rates by students from

disadvantaged backgrounds? Another consideration is the ratio of opportunities within the binary divide. We saw that the recent increase in places has meant that the increased participation has been in the Institute of Technology sector more so than in the university sector (Clancy 1995, Mc Coy and Smyth 2010). Brint and Karabel (1989) argue that when higher education expansion is accompanied by institutional (hierarchical) differentiation, the disproportionate take-up of those places by lower social classes is in the lower tier of higher education institutions. This view is contested by Dougherty (1994) who considers any increase in participation by working class students as a positive occurrence.

The National Office for Equity of Access to Higher Education

The National Office for Equity of Access to Higher Education was established in 2003, within the structures of the Higher Education Authority with a specific remit to facilitate educational access for students who were under-represented in higher education. The three specific groups for which it has a remit to encourage and increase participation are; those who are economically, socially or culturally under-represented; mature students and students with a disability. Two of the targets which were set out in the Higher Education Authority's report "*The National Plan for Equity and Access to Higher Education 2008-2013*" (p.12) were:

• A national participation rate of 72 per cent of the relevant age cohort to be achieved by 2020 (55 per cent in 2004).

• All socio-economic groups would have entry rates of at least 54 per cent by 2020. In 2004, the 'Non-manual' group rate was 27 per cent and 'Semi-skilled and unskilled manual' group rate was at 33 per cent.

However, the National Access Office's mid-term review (2010) highlights that progress to date in relation to targets for the participation from children of the non-manual occupation '*remains slow*' (p. 17), based on Equal Access data, and stated that participation in the 2009/2010 academic year was 9.6% against a reference 20% of citizens in that group based on the 2006 census within the age bracket 17-19, with the equivalent figures for the combined semi-and unskilled manual group being 8% against a reference of 11% in the national population.

Higher Education Access Route (HEAR)

A question arises as to the policy responses which have emerged to counteract this obvious deficiency in equitable participation levels. A key one has been the support and development of the Higher Education Access Route (HEAR) initiative through Government funding (under the HEA's Strategic Initiative Scheme) in partnership with a range of third level institutions.[13] This scheme offers places on reduced points and extra college academic and non-academic support for school leavers from socio-economically disadvantaged backgrounds. Students have to satisfy a number of eligibility indicators from a list which signal economic and social disadvantage (family income, occupation, receipt of State benefits, DEIS school attendance and/or residence

[13] In 2012, these institutions included eight universities including St Patrick's College Maynooth, five Colleges of Education, National College of Ireland, St Angela's College, Sligo and Mater Dei Institute of Education.

in a disadvantaged area). The scheme has its roots in individual college schemes previously established to promote access at a local level for students from disadvantaged backgrounds and which were then the focus of a number of research reports (e.g. Skilbeck and Connell (2000), Osborne and Leith (2000), Higher Education Authority (2004) and Phillips and Eustace (2005)). There have been fewer initiatives undertaken in the Institute of Technology level for students from underrepresented groups, due to the existence of Level 6 (two-year) *ab initio* programmes in their academic provision. Entry points are set at much lower levels (approximately 100-300 points) than the Level 8 Honours Degrees, and they provide for a more attainable pathway to higher education. There is the potential for students to progress through Levels 6, 7 and 8 towards postgraduate study (Mc Coy and Smyth, 2010). Recent research by the author in partnership with one Institute of Technology provided evidence that the balance between IoT admissions at Level 6 and 7 as compared with Level 8 was in the ratio of 2:1, reflecting the greater numbers admitted at lower levels on the National Framework of Qualifications to the IoT sector.

Grant Scheme

At a national level, the State's maintenance grant scheme is intended to assist students from lower income families afford the costs of college. While recognising the cultural barriers which were discussed earlier in this chapter, there are fundamental barriers which may arise due to a lack of financial capacity for students from lower income families to attend college (e.g. Manski and Wise (1983), Archer and Hutchings (2000), Dynarski (2003),

Callender and Jackson (2005)). A significant portion of State funding to higher education is focused on supporting the Free Fees Scheme which is not means tested and thus funds the tuition fees for many students who may have the capacity to pay the full tuition fee, a policy approach which has been questioned by a recent OECD report (2006). There have been calls from the Irish university Presidents group for the introduction of an income contingent deferred loan scheme, whereby students would repay their college costs after graduation when their earnings would reach certain thresholds, as a route to funding higher education at international levels. However, given the weak economic outlook and the financial pressure on many families in Ireland, the current Government policy position appears to be (though not formally stated) the gradual increase in the Student Contribution Charge annually (e.g. it increased from €2,000 (2011/12) to €2,250 (2012/13)). The level of the maintenance grant has also been reduced in recent years, by 3% in 2012, and the eligibility criteria for the non-adjacent allowance to assist with accommodation costs has increased from 24 kms to 45 kms from the college a student is attending to generate cost savings for the Government. One may conclude that while the overall policy context is similar there have been adjustments in eligibility criteria and levels of funding and costs, which may make it more difficult for students to attend college. One rationale offered by the Government for reducing the maintenance grant is the evidence that the costs of rental accommodation have declined in recent years.

In regard to the direction of future Higher Education policy, the Department of Education and Skills published the ‘National Strategy for Higher Education to

2030 – Report of the Strategy Group' in January 2011, commonly known as the 'Hunt Report' which sets out a vision for higher education in Ireland. Within the vision, the high level objective which has most relevance to this study, and which is stated first amongst six primary higher education objectives, states: '*Ireland will have an excellent higher education system that will attract and respond to a wide range of potential students from Ireland and abroad and will be fully accessible throughout their lives and changing circumstances.*' (p.27). One dimension in the Report is the increase in demand from mature learners, some of whom may have been early-school leavers who may wish to re-access education later in their lives. The Report estimates first year full-time entrants rising from 42,831 (2009) to 64,918 (2025), much of which is a three fold increase in mature entrants, from 5,568 to 16,229 (p.44). However recent policy changes regarding reduced funding for mature entrants in maintenance grants and eligibility for the Back to Education Allowance militates against this with mature applicants to the CAO for 2012 entry falling by 5% as against the equivalent application date in 2011 (March 2012 as against March 2011).

1.7 Conceptual and Theoretical Framework for the Study

A question arises as to why it is the case that children from middle class families continue to be substantially advantaged in their chances of advancing to higher education, when compared to those students from other social classes? Can we explain the differences in points expectations and applications to university which we expect to observe as between students from different

social backgrounds from a theoretical or conceptual approach which may provide an explanation as to why such inequalities exist? Over the last fifty years a number of theories have attempted to explain the underlying reasons for these differentials in the acquisition of educational levels by social class.

Early work by Hyman (1953), Kahl (1953) and Riessman (1953) considered how educational outcomes could be shaped by broader social structures particularly in respect of social class. These focused on the role of social class differences in shaping aspirations towards educational attainment. Put simply, they argued that working class families had a lower regard for higher education than middle class families, and that this lack of ambition to obtain higher levels of education compounded inequality over time. This approach then evolved during the 1960s and 1970s to a view known as the 'status attainment' perspective whereby it was thought that aspirations played a central role in maintaining the social position from one generation to the next. Proponents of this approach such as Blau and Duncan (1967) posited that educational attainment was the joint effect of family background and educational ability, which in turn shape expectations and future aspirations (Sewell et al. 1969, 1970). In this way, parents, teachers and peers base their expectations on observing a student's family background and their educational performance to date which in turn influences how they interact with each student and through this channel the student's own ambition and aspiration levels are shaped. However, the 'status attainment' approach has been criticised for being too narrow in its viewpoint, with too much concentration on this individual socialisation approach, which ignores broader social

structures which are seen to play an important role. More recent thinking has moved to examine social structures with a deeper perspective with two possible avenues of explanation for the educational differentials emerging, firstly, social reproduction theory, with an emphasis on cultural factors while the other is the rational action perspective, which has a greater emphasis on the economic resources and constraints which people face.

Social Reproduction Theory

Social Reproduction Theory derives from the aspect of social (or socio-cultural) reproduction of 'cultural capital' whereby different social classes have different 'habitus' which are a set of socially learnt dispositions and values which one acquires through the actions and activities of everyday life, and are passed on from parents to children, with each social class having its own individual and distinct habitus. Bourdieu (1973; and Bourdieu and Passeron, 1977) argue that the educational system can of itself perpetuate class inequalities through what they describe as the 'cultural arbitrary' whereby some social classes may dominant other social classes. The theory focuses on the unequal distribution of cultural, social and economic resources across classes, which is perpetuated in their transmission from parents to children through the generations. This theory posits that the educational system is largely undertaken within the habitus of the dominant, professional class and thus those outside this class, e.g. those from lower class families, do not have the cultural capital necessary for success within the education system. The concept of aspirations, at both educational and occupational levels, which play such an important role in the 'status attainment' theory is dismissed by

Bourdieu as he argues that aspirations have no autonomous explanatory power as they are simply indicators of alternative structural opportunities, given the lower access to social, cultural and economic resources which working class families have.

Bourdieu (1984) expands further the concept of cultural capital, identifying three variants of cultural capital; firstly in the embodied state, in mind and body, which one acquires in early childhood, most especially from one's parents; secondly, it exists in an institutional state in such forms as educational qualifications and finally in an objectified state such as books, dictionaries and paintings. Over time not having access to cultural capital can lead students to lower their aspirations to the level they feel they will actually achieve, and thus may not aspire to access higher education. Bourdieu also posits that there are other forms of capital, namely, economic, social and symbolic. Economic capital is wealth either inherited or generated, social capital is generated through social processes between the family and wider society and is made up of social networks, while symbolic capital is manifested in individual prestige and personal qualities such as authority and charisma (Bourdieu, 1985). For instance, students from lower socio-economic backgrounds may find the educational system as it is structured not conducive to their advancement, and this may provide one explanation as to the higher levels of early school leaving from working class students who find themselves in a 'mismatch' of cultures between home and school (Byrne and Smyth, 2010). Related to this is the conclusion suggested by Smyth and Banks (2012) whereby different social

classes form different dispositions in respect of learning which again can lead to a clash in perspectives.

There have been some criticisms of Social Reproduction Theory, in that, for instance, it does not give explicit recognition to the role of the school as a conduit to provide for social mobility for traditionally under represented groups in higher education, or indeed the scope for the school to create cultural capital as well as reproduce it. In an early work, Boyle (1966) suggests that college aspirations are influenced by individual ability and motivation but also by the imposition of academic standards and the practice of a college-focussed secondary school. At one level school success is predicated on the role of this cultural capital so middle class students tend to fare better academically as they are more familiar with the dominant culture. Bringing the influences of family and school together, Di Maggio (1982) argues that cultural capital not only mediates the relationship between family background and school outcomes, but it also may have its greatest impact on educational attainment through affecting the quality of college attended. In the Irish case, Smyth and Hannon (2007) place an emphasis on the effects of schools and conclude that school characteristics may influence both educational attainment and entry into higher education. Other work by Mc Coy et al. (2006), Byrne and Smyth (2010), Smyth et al. (2011), Smyth and Banks (2012) emphasises the key role of the school in shaping attainment and outcomes in a range of areas such as guidance provision as well as the downstream effects on Leaving Certificate achievement which may arise from

streaming in second year when students are allocated to 'higher' and 'lower' ability classes.

To further explain the role of schools, there is a related view that the 'dominant' classes use their power to ensure that schools operate in a conservative way, with the result that children of working class families are left with either accepting passive 'failure' in school or acting up which merely reinforces their position of subordination within it (Goldthorpe 2007). Archer and Hutchings (2000) find examples of cultural capital working through, in their study of working class students and they describe lower class non-participants in higher education as positioning themselves outside of higher education, and who see it as a '*white middle class place'*. Similarly, Bourdieu and Passeron (1977) suggest students' choices are governed by what is '*reasonable to expect'* (p.226). Another example of how this is working though may be found in the UK study by Reay et al. (2005) which detected a disparity between the number of A-levels students were able to undertake, with working class students taking two or at most three A-levels while also working part-time as compared to the middle class students in the study who were doing four A-levels and had applied to better 'perceived' universities. Reay et al. (2005) deduce that '*there is a process of class-matching that goes on between student and university; a synchronisation of familial and institutional habitus*' (p.92). Another impediment which can occur for working class students is the sense of fear and anxiety of failure which may be at a level above middle class students who have the benefit of what Allatt (1993;1996) describes as emotional capital, with family emotional assets of

confidence, security and entitlement in relation to the field of higher education making the decision to progress towards further educational attainment less risky.

It should be said that social reproduction theory has been challenged for being too deterministic; for example, Giroux (1982), Lareau (2000), Jenkins (2002) who argue that people are not 'passive' and that social class does provide individuals with resources which they can use to empower themselves, so that they may as Giroux states '… *reconstruct the conditions under which they live, work and learn*'. Another example of this is the concept of a young person's own agency which Smyth and Banks (2012) argue is the conscious process by which a student seeks out information on different post schooling options and then evaluates the alternatives. In saying this they also recognise that this is done in the context of a family and school habitus which may or may not be conducive to this information gathering and discernment process.

We could deduce from the above discussion of the literature the following hypotheses:

- School leavers from lower socio-economic backgrounds may not possess the cultural capital necessary to provide them with the aspirations required to equip them with higher levels of Leaving Certificate points expectations, having experienced an educational system shaped for those from more affluent backgrounds.
- Given these lower levels of points expectations which emerge, school leavers from lower socio-economic backgrounds are less likely to apply

for university admission and thus under-representation from lower socio-economic groups persist at university level.

Rational Action Theory

There is a second theory of explanation for class differentials in educational attainment, which is closer to the discipline of economics, known as the rational choice perspective which considers that students are 'rational consumers' and are constrained by the resources each student would have within their social class (Boudon 1974, later refined by Goldthorpe 1996, 1998 and Breen and Goldthorpe, 1997). Unlike social reproduction theory this theory does not rely on 'cultural' differences to explain differences in educational attainment, but rather it is referenced against differences in resources and constraints which are faced by occupants of different social class positions. In short, it assumes individuals and their families act rationally in the context of their circumstances, whereby they evaluate varying options, estimate the costs and benefits of each as well as the probability of success for each option, and finally they make what they see as the optimal decision given those circumstances.

A key principle in this approach is that families in all classes seek to ensure that their children acquire a class position at least as advantageous as that which they originate from, so that they do not incur downward social mobility. Importantly then, aspirations of individuals should be judged not in absolute terms *per se,* from their position of origin, but rather in relative terms, so it may be the case that a student from a lower class family who raises their

aspirations which is still below those of the position of a middle class student may indeed have demonstrated a higher relative increase in aspiration levels. Indeed as Keller and Zavalloni (1964) argue, working class children may have higher educational aspirations because coming from where they are, they have a higher 'social distance' to travel in their desire for a university education. Succinctly, Goldthorpe (2007) states '*.. children from less advantaged backgrounds will, all else equal and on average, need to have a higher subjective probability of succeeding than will children from more advantaged backgrounds before they are ready to take up more rather than less ambitious educational options at the point at which safer options appear to give them good chances of maintaining at least their parents' class position.*' (p.83).

Militating against higher participation by students from working classes may also be, as Boudon (1974) describes, 'primary effects' which may simply be the different academic abilities of students as demonstrated through achievement in school, yet in the circumstance where these may be equal or higher, then there are 'secondary effects' which are the cultural hurdles which students have to overcome when making their choices. In other words, primary effects are those, whether of a genetic or socio-cultural kind, which link children's class backgrounds and their actual levels of academic performance, while secondary effects are then expressed through the educational choices that children from differing class backgrounds make, perhaps with their parents, within the range of choices which their previous performance allows them (Jackson et al. 2007). Thus it could be the case that even if a student from a lower class family achieves the necessary school grades for admission

to university (satisfying the primary or first condition for entry to higher education), they may still not take up their place due to them (or their parents) deciding that a better future lay in taking up an immediate job offer after school (a consequence of the secondary effect).

Goldthorpe (1996) goes further to argue that there is a persistence in the conditions of perceived costs and benefits of educational options which means that the children from lower socio-economic families require greater certainty of their successful completion than those from middle class families and a second component which is that the resources, opportunities and constraints which exist between families of different classes is an inherent issue which exists over time. For example, Erikson and Jonsson (1996) make the observation that the relative costs of education are likely to be higher for low income and working class families. In their work on Sweden they do find narrowing of differentials over time, for which they suggest three contributing factors; school reform which led to more comprehensive schools with less 'branching' points for students; the improvement in living standards for working class families which led to a greater degree of security of income and finally, there was an important underpinning social democratic political system to support these changes. This may not be the case in other societies, where for many working class families the security of income does not match the requirements of a three or four year degree programme as their income may fluctuate and thus there may be reluctance in entering into the long term financial commitment necessary to support their children through college. In the Irish case the persistence in social class inequalities in educational

attainment may be explained to some degree by the lack of change in the relative costs and benefits of educational participation, as evidenced for example, in the work of Smyth and Mc Coy (2003).

Considering elements from the wider literature, taking a direct economist viewpoint, Manski and Wise (1983) posit that students decide between two alternatives; college or work and they will pursue the one which gives them greater utility, taking account such factors as cost, their ability and family income, and indeed the opportunity cost as investing in education involves forgoing income which could be earned if one goes directly into full-time employment immediately after school. In other words, as Hansen (2008) states '*According to the rational action perspective, variations in parental economic resources should be an important source of inequality in educational attainment, because richer families most easily can pay for their children's education.*'

Also from an economics perspective, Flannery and O' Donoghue (2009) consider a theoretical model of higher education participation, partly from the viewpoint that increased higher education levels can increase economic growth, but also in regard to issues of equity as higher education for lower socio-economic groups which may be seen as having redistributive benefits through higher income levels for those who undertake further study. Some of their work is based on previous research by Becker (1964) and Ben Porath (1967) which suggested a lifecycle aspect to educational choice with lifecycle earnings seen as a key influence on the decision to invest in education or not.

In summary, they conclude that a person's educational choices will be based upon the expected rate of return to extra education, the possible level of lifetime earnings in the labour market and the direct and indirect costs such as tuition fees and other costs associated with that additional education, including income foregone. Some would question the ability of a student (or indeed their parents) to access the information required to make this decision, and even if so, to be able to calculate such an equation. Yet, Manski and Wise (1983) deduce that '*if we imagine a student as (implicitly) assigning a numerical value to each potential activity, then the fact that the student has chosen a particular activity implies that its utility exceeds that of all others that the student could have chosen.*' (p.32). However, Hatcher (1998) argues that even in the event of a student from a lower class family ascertaining that the benefits of going to college outweigh the cost, there still is the 'social stratification' dimension where they may not wish to move away (or be seen to move away) from friends or the neighbourhood they grew up in (i.e. their own sub-culture), which is a view which would have a higher resonance with the cultural explanations for differentials in attainment levels which we discussed previously.

It should be said that the rational action perspective has been criticised as having a number of weaknesses. Perhaps the most fundamental criticism is that it does not seek to explain the origin of beliefs and values for individuals and classes but rather takes them as a given, and thus ignores how these beliefs and values could determine educational choices. For example, two families with the same resources and constraints may make different educational

decisions which cannot be explained by the rational action perspective as the reason for the different outcomes may lie in underpinning cultural values. Another flaw in the rational action perspectives approach is that it ignores the important role of the school which can shape educational attainment and experiences but rather sees it as a 'black box' and thus loses an opportunity to make a stronger influence on current thinking.

There have been attempts to refine the rational action theory to take account of some criticism. For instance, one such refinement is posited by Breen and Goldthorpe (1996) through their concept of 'adaptations', whereby due to changes in the underlying structural situation, which could be caused by changes in preferences, resources or constraints this in turn creates an adjustment in the individual or family cultural attributes which subsequently may affect the educational decisions they then make. In summary, perhaps the most profound view is expressed by Reay and Ball (1997; 1998) when they state '*The exercise of educational choice is constantly aligning and realigning the boundaries between and within classes'*. (p.96).

Again we can consider hypotheses which are rooted in the rational action perspective:

- Young people from lower socio-economic backgrounds are less likely to possess the necessary aspirational levels for university admission given their point of origin, as evidenced in their Leaving Certificate points expectations, when compared to middle-class students.

- School leavers from lower class families are less likely to apply for university admission as a result of the higher relative costs of university education, the greater opportunity costs they perceive are involved and also their fears in respect of non-completion when compared to middle-class students.
- Young people from more advantaged backgrounds may have better opportunities and resources to partake in activities such as Transition Year, private tuition and less need to undertake part-time work, which may influence positively their Leaving Certificate points expectations and consequently more affluent students may have a higher likelihood to apply for university admission given those additional resources.

1.8 Rationale for the Study

This study is rooted in the theory and practice at the nexus between second and third level education. It is guided by over twenty enjoyable years working with young people who are at the transition point between 2nd and 3rd level in their educational journey, and an interest in the numbers who do not make the step onto third level and the reasons why not. While this experience at the 'coalface' can allow for intuitive insights into the influences which impinge upon school leavers, it lacks real depth in understanding the underlying fundamental dynamics of the processes involved. It is also the case that while one can have an understanding of individual component parts in this sphere of educational transition, it is the investigation of how these come together that constitutes one of the aims of this research. At a basic level, having worked closely with a large range of schools as part of my working day, it is evident

that school processes vary and there are differentials in the pathways which students in different schools take – the research was guided by a personal goal to understand differences in participation rates to higher education from different schools so that this knowledge could be used in a better way in relation to policy decisions made in the university in which I work. As in all research, the final realisation of the channels to investigate evolve over time, the initial starting point for this research was simply to understand the decisions of the broad range of school leavers in a better way – thankfully this has become more complex than originally envisaged.

It must be said that the study had another clear objective which goes beyond the single dimension of understanding the transition for school leavers to higher education in a better way – an additional output was centred on a need to frame recruitment strategies in a university context more effectively so as to enhance the quality of the student intake in one given university. Hossler and Gallagher (1987) posit a model which has three stages; the *predisposition phase* where a student first decides whether or not to attend college, the *search phase* occurs when the student searches for general information about colleges, forms a choice set, and begins to consider a number of colleges, and finally the *choice phase* where the student narrows the choice set down to a single college and course. The Central Applications Office system in the Republic of Ireland does allow for a range of college and course choices but specifically these are ranked in preference order and in this it resonates with the Hossler-Gallagher model. There are a myriad of actions which take place to encourage students to come to an institution; school visits by university

personnel to the school, attracting school groups onto the campus during the academic year, attendance at career exhibitions, open days, radio advertisements, social media campaigns (including e-mailing and viral), print advertisements, promotional publications, academic and sports scholarships – the challenge is not necessarily to be busy but to be effective, with one key measure being the proportion of the total applicants who place that institution as their first preference. Thus the rationale for the study was to bring together theory and practice, and to attempt to harness this knowledge to guide management decisions, so that the disbursement of (public) funds would be more systematic and also contribute to the admission of a diverse student body which is one of the key strategic objectives of the university, with follow-on research to ensure the students are successful.

1.9 Thesis Overview

The thesis is structured such that chapter 2 gives an overview of the methodology and modelling approach, as well as a discussion of the variables which are included in the study. Chapter 3 gives a full account of the survey results including a comprehensive insight into the various responses from the final year second level students. It considers areas such as Junior Certificate results, Transition Year participation, level of paid private tuition (‘grinds’) at Junior and Leaving Certificate, family educational and occupational background, expected performance in the Leaving Certificate as well as choices after secondary school.

Chapter 4 considers the factors which have an influence on student expectations in respect of their Leaving Certificate examinations, at individual, family, school and regional level. A distance measure in kilometers is taken between each school and its nearest university, using geo-coding, and importantly the chapter takes account of school compositional factors given the variation which pertains in intake in schools across Ireland. The chapter looks at the varying magnitudes of influence which can affect student expectations and how these relate to each other.

Chapter 5 extends this analysis having understood the processes which influence student expectations as examined in chapter 4. It is clear that these expectations play a key role in the post schooling decision making of students and chapter 5 examines how these expectations influence the educational pathway students intend to take after second level. The chapter considers the application rates to university from each school type taking first preference applications to a university through the Central Applications Office as the key indicator. A focus is also given to the Irish Government's socio-economic disadvantaged DEIS schools scheme which provides additional resources over and above those provided to other schools and how this could influence policy in higher education institutions. The concluding chapter summarises the research results, draws conclusions and discusses directions for future work.

Chapter 2

Methodology

2.1 Introduction

This chapter examines the data and methodology used in this study of the higher education intentions and expectations of Irish school leavers. It considers the representativeness of the sample, taking account of the stratification used when selecting the sample. Initially, the data set is discussed to study the different categories at individual, family, school and regional level which underpin the thesis as well as providing a synopsis of the overall student profile which sets the context for the entire study. In addition, the dependent and independent variables used and the modelling strategies adopted in chapters 4 and 5 are outlined as well as any issues relating to them. The chapter concludes with a discussion of the advantages and limitations of the study and the alternative approaches which could have been undertaken.

2.2 Data

The thesis is based on a unique survey undertaken specifically for this research consisting of an in-depth questionnaire completed by 5,174 students in 105 nationally representative schools in the Republic of Ireland. The sample of schools was selected from the population of schools on a random basis with pre-stratification by area, school type, school size, religion and gender composition. The selection of schools was undertaken by the Economic and Social Research Institute (ESRI) to ensure objectivity and representativeness. The survey was completed by the 2005 Leaving Certificate cohort, and the

fieldwork was completed in Spring 2005, immediately after students had completed their college applications. The deadline for initial college application, through the Central Applications Office is February 1st annually, and the survey was conducted directly after this closing date. This date is a milestone event in the academic calendar for final year students and marks a 'watershed' before other events such as oral and aural examinations for languages take place as well as other preparations for the Leaving Certificate.

The survey was piloted with a sample of final year students in a co-educational Community College before scaling up to the entire sample. The survey was framed so that it could be administered during a school guidance class period of approximately thirty five minutes duration. A key aspect was to ensure that the students had sufficient time to complete the survey and this was tested in that pilot phase, as well as validating that the students could comprehend the questions. The distribution channel consisted of the questionnaire being administered by school guidance counsellors who gave it to each final year student for completion and return for analysis. Survey returns were completed by students in 105 of the 126 schools included in the survey, representing a response rate of 83%. To achieve a high response rate, contact was made on several occasions with many schools so that the survey was completed by the students and returned for analysis.

2.3 Sample Representativeness

The tables below summarise the survey sample when compared to the national population, taking account of the stratification used when selecting the sample.

It is evident that the sample is representative of the national population from the following tables which consider comparisons under a range of different characteristics such as school sector, distribution by province, by school size, and by school gender mix. The number of fee-paying schools is compared to the number of non fee-paying schools nationally, before proceeding to consider the sample breakdown at the individual student profile level considering attributes such as gender and Leaving Certificate programme being undertaken.

Table 2.1 shows that the sample of schools by school type is broadly representative of the population of schools in the country. Voluntary secondary schools constitute 55 schools in the survey, 26 are vocational schools, 18 are community schools while 6 are comprehensive schools. In the relevant academic year of the survey, there were 742 second level schools, consisting of 403 secondary schools, 247 vocational, 76 community Schools and 16 comprehensive schools. The sample and population percentages for voluntary secondary schools are similar (52% as compared with 54%) with a marginal over representation for community and comprehensive in the sample as compared with a marginal under representation for vocational schools.

Table 2.1: Comparison between survey sample and national population of Leaving Certificate students by school sector

	Population		**Sample**	
School Type	N	%	N	%
Vol. Secondary	403	54	55	52
Vocational	247	33	26	25
Community	76	10	18	17
Comprehensive	16	2	6	6
Totals	742	100	105	100

Source: Department of Education and Skills. Key statistics summary.

Table 2.2 summarises the comparison between the sample population of schools by province and the national distribution. The provincial distribution of the schools in the sample is across the four provinces, with 49 based in Leinster, 34 in Munster, 17 in Connaught with 5 located in Ulster. Ulster includes the three Republic of Ireland counties of Monaghan, Cavan or Donegal. Again we see that the sample distribution of schools by province is similar to the national distribution.

Table 2.2: National and survey distribution of Schools by Province

	Population		**Sample**	
Province	N	%	N	%
Leinster	366	49	49	47
Munster	220	30	34	32
Connaught	107	14	17	16
Ulster	49	7	5	5
Totals	742	100	105	100

Source: Department of Education and Skills. Key statistics summary.

Schools by size is considered in the following table, which shows that the distribution of schools in the sample population is similar to the distribution in the national population with the largest percentage of schools falling in the 300 to 500 range. It is interesting to note that only 57 (7.6%) schools in the country had a school size of 800 students or above given the recent Department of Education and Skills announcement that any new second level schools will be expected to have an enrolment of 1,000 students or more. The list of 105 participating schools is included in Appendix A.7. They range in size from the smallest school of 23 pupils to the largest with 1,027, with the average school size being 452 pupils.

Table 2.3 Comparison between school size in national population compared to sample

School Size	Population		Sample	
	N	%	N	%
Under 100	29	3.9	3	2.8
100 and under 200	73	9.8	6	5.7
200 and under 300	109	14.6	17	16.1
300 and under 400	126	16.9	18	17.1
400 and under 500	119	16.0	22	20.9
500 and under 600	95	12.8	15	14.2
600 and under 700	95	12.8	14	13.3
700 and under 800	39	5.2	3	2.8
800 and over	57	7.6	7	6.6
Totals	742	100	105	100

Another aspect is the profile of the various schools in the sample by gender mix which as one can see from the following table is in line with the national population of schools.

Table 2.4 Comparison of gender mix of schools in national population compared to sample

Gender Mix	Population		Sample	
	N	**%**	**N**	**%**
Male	114	15.3	18	17.1
Female	148	19.9	22	20.9
Co-Ed	480	64.6	65	61.9
Totals	742	100	105	100

We can also compare the breakdown between fee-paying and non fee-paying at both the national population and sample levels. There were 54 fee paying schools in the country in the 2004/2005 academic year (7%) with the number of schools in the sample being 6%.

Table 2.5 Comparison of distribution of fee-paying schools in national population compared to sample

School Type	Population		Sample	
	N	%	N	%
Fee Paying	55	7	6	6
Non Fee Paying	687	93	99	94
Totals	742	100	105	100

The number of DEIS and non-DEIS schools nationally and in the sample is compared in Table 2.6 with more DEIS schools participating in the survey than the national profile. There are 35 schools in the survey designated as disadvantaged under the Department of Education and Skills' DEIS Scheme (Delivering Equality of Opportunity in Schools). The remaining 70 are classified as non-DEIS (which is discussed further in chapter 4). Here we find that DEIS schools are over-represented in the sample relative to the population.

Table 2.6 Comparison of distribution of DEIS and non-DEIS schools in national population compared to sample

DEIS	Population		Sample	
	N	%	N	%
DEIS	150	20.2	35	33.3
Non Deis	592	79.8	70	66.6
Totals	742	100	105	100

Finally, of note also is the denominational/multi-denominational breakdown of schools in the sample which indicates that 53 schools have a Catholic ethos, 3 are Protestant, 1 is a Jewish school (the only Jewish school in the country) with the remaining 48 schools being multi-denominational.

Student Profile

The gender breakdown of the students in the survey as compared with the national population is detailed in Table 2.7. One can see that the sample group is similar to the national population, with marginally less males than females in both the sample group and nationally taking a Leaving Certificate programme.

Table 2.7: Comparison of gender distribution of national population and sample

Gender	Population		Sample	
	N	%	N	%
Males	26,679	48.3	2,535	49.1
Females	28,521	51.7	2,630	50.9
Totals	55,200	100	5,165	100

* missing 0.2%

Two of the reasons which give rise to a majority of females taking the Leaving Certificate are apprenticeship participation and differentials in early school leaving rates as evidenced by Mc Coy and Hannan (1995), Byrne and Smyth (2010) as well as Mc Coy and Byrne (2010). Traditionally a larger percentage of boys leave school early to pursue apprenticeship training, which had increased in the early 2000s because of the growth in the construction sector. A number also left to take up non-skilled entry level manual jobs in construction. Consequently the early school leaver rate for boys is higher than for girls, with some regions of the country and particular areas within major cities having high numbers of early male school leavers relative to the female school cohort.

An analysis of the age profile of the respondents in the sample, including those repeating the Leaving Certificate indicates that the most frequent year of birth for respondents was 1987, with most completing the survey as 18 years olds. The median and average age is also 18. Participating in a Transition Year, after Junior Certificate, is intended to provide a broader educational and work experience component, and has a direct impact on a student's age when he/she takes the Leaving Certificate. Analysing the data overall shows that 1,857 or 36% of students had taken Transition Year. Of these students, 916 were born in 1986, or 49%, while 881 were born in 1987 (47%).

Lastly, we consider the breakdown by gender within Leaving Certificate programmes at the national population and sample level, which is detailed in Table 2.8. Relative to the national population, the sample represents an over-representation of students pursuing the established Leaving Certificate programme and an under-representation of students pursuing the Leaving Certificate Vocational Programme relative to the national distribution of students across programmes.

Table 2.8a Population and Sample Distribution of Students by Leaving Certificate Programme Type

Programme Type	Population		Sample	
	N	%	N	%
Established LC	32,873	59.5	3,650	70.6
LCVP	15,902	28.8	1,043	20.1
LCA	3,454	6.25	251	4.8
Repeat LC	2,971	5.3	182	3.5

Table 2.8b: Comparison between Survey Sample and National Population of Leaving Certificate Students by Gender within School Sector

Category	Vol. Sec. Schools		Vocational		Comm. & Comp.		Total	
Gender	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
LC Established – Year 2 National Population	10456	11749	3007	2423	2758	2480	16221	16652
Percentage	64.5	70.6	18.5	14.6	17.0	14.9	49.3	50.7
Sample – LCE Year 2	993	1248	327	209	523	350	1843	1807
Percentage	53.9	69.1	17.7	11.6	28.4	19.4	50.5	49.5
LCVP National	3113	4657	2762	2462	1317	1591	7192	8710
Percentage	43.3	53.5	38.4	28.3	18.3	18.3	45.2	54.8
LCVP Sample	162	218	126	136	184	217	472	571
Percentage	34.3	38.2	26.7	23.8	39.0	38.0	45.3	54.7
LCA – Population	443	850	845	522	474	320	1762	1692
Percentage	25.1	50.2	48.0	30.9	26.9	18.9	51.0	49.0
LCA Sample	1	85	58	39	33	35	92	159
Percentage	1.0	53.5	63.0	24.5	35.9	22.0	36.7	63.3
LC Repeats – National	885	792	451	496	168	179	1504	1467
Percentage	58.8	54.0	30.0	33.8	11.2	12.2	50.6	49.4
LC Repeats – Sample	59	51	10	7	35	20	104	78
Percentage	56.7	65.4	9.6	9.0	33.7	25.6	57.1	42.9
Totals National	14897	18048	7065	5903	4717	4570	26679	28521
Percentage	55.8	63.3	26.5	20.7	17.7	16.0	48.3	51.7
Totals Sample	1215	1602	521	391	775	622	2511	2615
Percentage	48.4	61.3	20.7	15.0	30.9	23.8	49.0	51.0

*1% missing responses.

Source: National Population - Department of Education and Skills, Statistical Report 2004/2005. Government Publications Office.

The overall summary statistics shown in Table 2.8b indicate that there is a slight under representation of males in secondary schools, an under-representation of males and females in vocational schools and an over-

representation of both males and females in community/comprehensive schools (as indicated in Table 2.1). While the sample has indicated some anomalies, it is broadly in line with the national population of Leaving Certificate students. However, the issues surrounding the representativeness of the sample as indicated in this section will be discussed in later sections of the dissertation.

2.4 Variables

Dependent Variables

Two main dependent variables are used in the analyses. The first dependent variable used in Chapter 4 is based on the expected points that each student estimated they would achieve in the Leaving Certificate. Students were asked 'How many points do you realistically think you will get in your Leaving Certificate in June?' with the option of the following categories: 0-195, 200-295, 300-395, 400-495 and 500-600. The established literature finds a direct link between expected grades and not only college *per se*, but also the type of college or institution a student will apply to (see Manski and Wise 1983, Mc Donough 1997). There are notable differences in the responses by gender to this question which can be seen in Table 2.9

Table 2.9: Expected points by points band and gender, excluding Leaving Certificate Applied

Expected Leaving Certificate Points	Male	Female	Total
0-195	222	144	366
	(9.3%)	(6.0%)	(7.6%)
	60.7%	39.3%	100.0%
200-295	548	429	977
	(22.9%)	(17.9%)	(20.4%)
	56.1%	43.9%	100.0%
300-395	825	947	1,772
	(34.5%)	(39.4%)	(37.0%)
	46.6%	53.4%	100.0%
400-495	612	750	1,362
	(25.6%)	(31.2%)	(28.4%)
	44.9%	55.1%	100.0%
500-600	184	131	315
	(7.7%)	(5.5%)	(6.6%)
	58.4%	41.6%	100.0%
Totals	2,391	2,401	4,792
	58.8%	41.2%	100.0%

N = 4792 (Male 2391, Female 2401). Missing 123 (2.5%), 259 LCA students not included.

From Table 2.9, one can see that males have higher percentages at the outer ends of the points scale, with 9.3% of males expecting to get less than 195 points compared to 6% of females. This is also apparent at the 200 – 295 range where again males are a higher percentage than females, 22.9% in comparison to 17.9%. Almost one in three students (28%) expected to get less than 300 points. This compares with an actual outcome in the Leaving Certificate in the relevant year of 45.7% which may be seen in Table 2.10[14]. In both the 300 to 395 and the 400 to 495 ranges, girls expect higher points levels than boys. These two categories account for the majority of students, 65.4%, of which 37% expected 300-395 points while 28.4% expected between 400 to 495

[14] Source: CAO website – summary table of Leaving Certificate points and percentages for 2005.

points, with 6.6% of students overall expecting to get over 500 points. Of note is that a higher percentage of boys than girls (7.7% compared to 5.5%) expected to get points at these high attainment levels. The Table shows that male students are in the majority in the lower bands and also in the top band.

Table 2.10, provides a comparison of the expected points of the sample of students with the actual distribution of results of the national population[15]. This shows that nationally 8% of students achieved between 500 and 600 points which is similar to the estimates obtained from the sample (6.6%). We can also see that the estimated points of the sample and the actual academic attainment levels of the population is similar in the 200-295 range, but there are differences in the other ranges.

Table 2.10 Difference between survey expected performance and actual Leaving Certificate points (Nationally), excluding Leaving Certificate Applied

Points Bands	Survey/Sample Estimate for 2005 %	Population Actual Outturn in 2005 Leaving Certificate %	Difference
0-195	7.5	26.6	19.1
200-295	20.4	19.1	1.3
300 – 395	37.0	25.4	11.6
400 – 495	28.4	20.9	7.5
500 – 600	6.6	8	1.4

We must acknowledge that there is a considerable difference between the expected points which students have estimated in February and the actual results of the national population when results are released six months later. The survey was anonymous so it was not possible to compare the expectations

[15] It was not possible to obtain the actual leaving Certificate results of the respondents.

against actual Leaving Certificate attainment for each student. One view might be that for most students, estimating points is a considered opinion as they frequently benchmark themselves against points required for their planned course choices. Students take 'mock' school examinations which can also give an indication of performance, and which would be a substitute examination similar in content and layout to the actual examination. 'Points' is also a topic which students discuss with their peers, teachers and parents in the context of requirements for college entry. The guidance software program which is used by most guidance counsellors and students is 'Qualifax'. It has a basic feature which calculates points automatically taking students' subjects, levels and expected grades and points are calculated automatically for them. This feature is readily available to students on the internet at www.qualifax.ie. Thus we might simply assume expected points will be similar to actual points which are released later in the year.

However, there are a number of reasons why this simple view will not hold. Firstly, it may be that given the timing of the survey students did not have the benefit of having taken their mock examinations and thus had not received feedback on their progress. Part of the assumption regarding accuracy between expectations and actual attainment is that students have had the opportunity to have an in-depth discussion with their guidance counsellor. This is needed to provide for a realistic assessment of how they will do in the Leaving Certificate, at the time of the survey. However, some research has expressed concern regarding the quality of guidance services in Irish schools and point to the variability in provision which undermines the argument that students

would have had an opportunity to discuss their expectations in detail with their guidance counsellor. For example, Smyth and Hannan (2007) consider the association between school processes and higher education participation, looking at a range of factors including guidance provision, and find that '*Students are 1.6 times more likely to apply for higher education if they attend a school where more than 12 hours per week is devoted to career guidance by the guidance counsellor compared to other schools.*' (p.185). Separately, in the same paper, the authors make the important point that this provision needs to be underpinned by an equally strong orientation to academic success within the school.

It is also important to note the concerns expressed by Mc Coy (2006) and Mc Coy et al. (2010) who conclude following a study of guidance provision in Irish schools that '*While some students receive early and comprehensive career guidance advice facilitating informed subject, programme and career choices, others have more limited exposure to these services*' (2006, p.194). The 2010 study goes further to state '*Many of those from the other non-manual group who did not progress to HE had negative constructions of the advice received at school. Guidance was variously absent, only focussed on certain groups of students (such as the 'honours' class), narrowly focused and directed away from HE.*' (p.xii). An earlier study by Healy, Carpenter and Lynch (1999) of student retention in the Institute of Technology sector indicated that the high non-completion rates in that sector were strongly associated with both unclear career aspirations as well as a lack of information and guidance on course and career options at second level. This may also

affect the ability of students to have an accurate assessment as between expected points and actual performance.

Research has shown that there may be variation in student ability to predict academic performance depending on socio-economic background. While there is little evidence of work on quantifying Leaving Certificate expectations for the Irish case; some work has been undertaken overseas. For instance, Chevalier et al. (2009), using the England and Wales component of the 2003 PISA (Programme for International Student Assessment) survey in mathematics, which includes school and student attributes, family background, as well as students' educational ambitions in relation to attendance at university, find that students with a more positive view of their academic abilities are more likely to continue to higher education. This result holds even after controlling for observable measures of ability and student characteristics. One finding though is that '*Students are poor at predicting their own performance in absolute and relative terms'* (p.28) although they do not state if this is the case for all students or only a subset of students. Taking GCSE results into account, Sullivan (2006) finds that boys significantly overestimate themselves compared to girls both in predicting their GCSE results and in evaluating their general academic abilities. Another finding is that students from salaried families significantly overestimate their general academic abilities and their GCSE scores compared to students from lower social class categories. Sullivan also finds that students whose parents have degrees overestimate their GCSE performance significantly compared to students whose parents are not graduates.

I have discussed this anomaly of difference between expectations and actual attainment with experienced guidance counsellors. Their view is that students at that stage of the Leaving Certificate cycle, in February, are referencing to their Junior Certificate experience and results in regard to the level of study required, and are not aware of the volume and application of study needed for the Leaving Certificate examinations. Similarly Smyth et al. (2011) find that many students report a gap in standards between what is expected of them at Junior Certificate level and Leaving Certificate level.

These findings alongside the sample representativeness issues outlined in the earlier section (over-sampling of LCE students, under-representation of students in vocational schools, as well as missing cases on the expected points variable) allow us to conclude that there are a number of reasons which give rise to differences as between expected points as estimated in February and actual points achieved when the results are released later in the year.

The responses regarding expected points by socio-economic occupation are detailed in Tables 2.11, 2.12 and 2.13. The pattern of likelihood for the children of professionals to have expectations of attaining 500 points or more is evident across the three scenarios. Conversely points expectations in the lower ranges are more pronounced in the lower socio-economic categories as well as a larger likelihood of ‘unknown’ to be the response of students with working class parents.

Table 2.11 Father Socio-economic Occupation by Expected Points Band

Code	0-195	200-295	300-395	400-495	500+	Unknown	Total
1.Legislators, Senior Officials and Managers	6.0	9.1	13.2	16.6	20.1	4.6	12.7
2.Professionals	1.8	3.9	7.8	15.3	30.4	2.7	9.6
3.Technicians and Associate Professionals	5.1	4.7	6.4	9.4	10.7	3.4	6.9
4.Clerks	3.0	2.8	2.5	3.2	2.5	2.3	2.8
5.Service Workers and Shop and Market Sales Workers	6.0	3.7	5.0	4.5	3.4	3.1	4.5
6.Skilled Agricultural and Fishery Workers	10.3	9.8	11.7	13.1	9.7	8.8	11.3
7.Craft and Related Trades Workers	25.5	26.5	21.2	15.7	11.0	25.7	20.7
8.Plant and Machine Operators and Assemblers	12.4	13.1	11.6	6.6	4.7	13.8	10.3
9.Elementary Occupations	11.5	9.8	5.1	4.8	1.9	13.0	6.7
10.Armed Forces	.9	1.1	1.2	.9	.0	1.1	1.0
11.Unknown	17.5	15.4	14.5	9.9	5.6	21.5	13.5
	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 2.12 Mother Socio-economic Occupation by Expected Points Band

Code	0-195	200-295	300-395	400-495	500+	Unknown	Total
1.Legislators, Senior Officials and Managers	3.2	5.4	5.8	7.0	6.9	2.3	5.7
2.Professionals	6.0	8.5	14.0	22.6	39.2	5.7	15.7
3.Technicians and Associate Professionals	2.1	2.7	4.9	7.1	8.8	2.3	4.9
4.Clerks	9.7	10.7	13.0	17.2	14.1	8.4	13.2
5.Service Workers and Shop and Market Sales Workers	22.3	23.3	20.4	15.5	8.2	22.2	19.2
6.Skilled Agricultural and Fishery Workers	1.4	1.4	1.3	1.2	0.9	1.1	1.3
7.Craft and Related Trades Workers	1.1	0.5	0.7	0.2	0.3	1.1	0.6
8.Plant and Machine Operators and Assemblers	4.1	4.0	2.5	2.2	0.9	6.1	2.9
9.Elementary Occupations	33.1	28.5	22.0	16.8	14.7	29.5	22.7
10.Armed Forces	.2	0.0	0.1	0.1	0.0	0.0	0.1
11.Unknown	16.8	14.9	15.4	10.1	6.0	21.1	13.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 2.13 Highest Parent Socio-economic Occupation by Expected Points Band

Code	0-195	200-295	300-395	400-495	500+	Unknown	Total
1.Legislators, Senior Officials and Managers	8.7	12.6	16.0	20.1	23.5	6.1	15.8
2.Professionals	6.9	10.4	16.5	26.7	42.6	6.9	18.4
3.Technicians and Associate Professionals	5.3	5.4	7.5	10.1	10.3	4.2	7.6
4.Clerks	10.1	9.7	10.1	10.5	6.3	8.0	9.8
5.Service Workers and Shop and Market Sales Workers	21.6	20.4	16.9	10.4	5.3	20.7	15.7
6.Skilled Agricultural and Fishery Workers	6.2	6.0	5.2	4.8	3.1	5.0	5.2
7.Craft and Related Trades Workers	13.1	10.1	8.6	5.6	2.8	13.0	8.3
8.Plant and Machine Operators and Assemblers	6.0	7.1	4.0	2.3	0.9	10.3	4.4
9.Elementary Occupations	9.2	6.4	3.5	1.6	0.3	10.0	4.2
10.Armed Forces	0.2	0.1	0.1	0.1	0.0	0.0	0.1
11.Unknown	12.6	11.6	11.7	7.7	4.7	15.7	10.5
	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The second dependent variable used in the analyses pertains to application to the Central Applications Office (CAO). The sample of students is also representative of the overall number of students in the sample population who applied to the CAO in the survey year, and who were actually taking a Leaving Certificate in 2005 as is shown in Table 2.14. Appendix 1 tabulates the percentage of first preferences by institution in the sample as compared with the CAO applications overall.

Table 2.14 Comparison between 2005 Leaving Certificate applicants to the CAO nationally compared to the sample

	Population*		Sample	
	N	%	N	%
CAO Applicants	42,116	77.8%	3,863	74.7

*Source: Central Applications Office Management, actual number of CAO applications from Republic of Ireland school leavers in 2005.

Independent Variables

A number of independent variables are used in the thesis which merit explanation as to how they are derived. Firstly, there is a continuous variable which is the measure of the shortest distance for each school to its nearest university. This was calculated in association with the National Centre for Geocomputation at the National University of Ireland, Maynooth, which is a leading international research centre in the field of Geocomputation. The Centre specialises in the utilisation, analysis and capture of spatial data. While some previous work in this area (e.g. Kellaghan and Fontes, 1980) researched distance effects on higher education application rates using distance from county towns to universities, this research is more in-depth in that it involved geo-coding each school and each university, so as to derive the exact distances in kilometres for each. Thus, it is not prone to the anomalies which would arise in using county towns as the measure of origin.

The independent variable used in the thesis is the nearest university to each school, which varies between 0.7 kilometres for the shortest such distance to 203 kilometres as the longest, with 45 kilometres being the average distance between schools and their nearest university. In terms of overall geographic dispersion, seventy five schools are situated in rural areas compared to thirty schools based in cities. Other measures which are used in the thesis include the average social mix of students in each school as well as the average parental SES which are key measures as they allow more valid comparisons to occur between schools and individuals. Other independent variables in the models such as Transition Year, private tuition (‘grinds’) and part-time work are

binary in approach with ‘yes/no’ indicators yet they are fully discussed in Chapter 3, the descriptive chapter, which gives an insight into the level of engagement by students in such activities and processes. The approach to analysis in the models in some cases adopts a dummy variable method which allows consideration of variables against a base, for example, in comparing university applications as between provinces, or by school sector or males in comparison with females.

Another important independent variable used in the models, and which has the potential to add a high level of explanatory power to the results is a prior academic attainment measure. This was collected by each student who gave their Junior Certificate subjects and grades as part of the survey which was then converted to an academic score, calculating the results from the best nine subjects for each student. From a methodology perspective the best nine subjects was taken as most students took ten subjects, and similarly for Leaving Certificate where most students take seven subjects with CAO scoring best six, I used the same approach with ten subjects at Junior Certificate. The best nine was then calculated for each student. Other independent variables include parental education levels as well as a peer measure which calculated for each student their perception of what percentage of their classmates in their school would be progressing to higher education.

2.5 Analytic Approach

The data analysis in this thesis was performed using both SPSS (Statistical Package for the Social Sciences) software and STATA, with regressions in

Chapter 4 using an ordered logit approach, while those in Chapter 5 use the binary logistic regression method (similar to approach taken by Smyth and Hannan, 2007). The models in Chapters 4 and 5 are based on multivariate models estimated in STATA. In determining the factors which influence point expectations in the Leaving Certificate, the ordinal logistic regression model violated the parallel lines assumption, based on results from the Brant test. Williams (2006) - gologit2 - user written Stata programme was employed to allow the variables that violate the parallel lines assumption to vary, and is a programme that estimates generalised ordered logit models for ordinal dependent variables. A major strength of *gologit2* is that it can estimate models that are less restrictive than the parallel lines models estimated by *ologit*, yet it is more parsimonious and interpretable by those which are estimated by a non-ordinal method such as multinomial logistic regression (i.e. *mlogit*). In Chapter 5 we use binary logistic regression which is a logistic regression that applies to binary (0,1) variables, as the dependent variable is whether a student has applied for university admission or not as their CAO first preference.

The statistical methodology adopted takes account of the clustering of students within schools as clustering attempts to eliminate intra-group correlations, that is to say, that the students in the same school are not randomly distributed, but rather students in the same school may be more like each other. The reason being that they are more likely to share common influences, such as the cultural climate in the school, the emphasis which may be placed on academic and non-academic activities, the nature of learning in the school as well as the

social supports which exist for the students. To take account of this clustering, the models were estimated using robust standard errors, which is a method which allows for within-cluster correlation of errors, and results in much more conservative standard errors and smaller t-statistics than those in an un-clustered model. In short, this method represents a form of multi-level modelling[16], as it relaxes the requirement that the errors be independent by allowing them to be correlated with each cluster group (school[17]). It should be noted that this affects only the standard errors[18] and t-statistics but not the estimated coefficient.

Any conclusions drawn in the analysis are based on standard hypotheses testing techniques deriving appropriate levels of significance at * $p<0.05$, ** $p<0.01$ and *** $p<0.001$.

2.6 Limitations

It is the case that many of the applied empirical studies in this area have adopted a mixed methods approach which combines quantitative data with in-depth qualitative interviews of the target group, which is an approach which is very much to the forefront of educational research today (Byrne and Smyth 2010). This approach has the advantage of not being solely dependent on either a quantitative or qualitative approach, and combines the best of both approaches to provide for a more comprehensive and holistic approach (Teddlie and Stringfield 1993; Day et al. 2008).

[16] MLWin could not be used as the university currently does not have a licence for this software.
[17] That is, observations within a group are correlated in some unknown way, inducing correlation in the error term within a group, but not across groups.
[18] Incorrect standard errors may lead to incorrect inference in samples.

There are a number of advantages and limitations to quantitative and qualitative research if they are undertaken on their own (Chadwick et al. 1984). In the case of a quantitative study, the research results are relatively independent of the researcher, whereas with qualitative research, problems of subjectivity may emerge. An advantage of quantitative research is that it can provide precise numerical results, allows for the testing of hypotheses, and is useful for studying large numbers of people. Caution is required to ensure that the sample one is working with is representative of the population at large being studied. However, qualitative research provides an opportunity to achieve a deeper understanding of the respondent's world and stresses interpretations and meanings. Two key difficulties however with qualitative research is the fact that it is very time consuming, and there are issues with its ability to provide generalisations of the findings to the larger population given the smaller sample.

2.7 Summary

This chapter has summarised the methodology used in the thesis, it has considered the representativeness of the survey sample when compared to the national population, the techniques used in modelling as well as the alternative approaches which could have been taken. It provides a basis for understanding the various characteristics which are detailed in the following descriptive chapter.

Chapter 3

Survey Results and Descriptive Analysis

3.1 Introduction

This chapter summarises the results of a unique survey of 10% of Irish students in the final year of secondary school in relation to their plans for the Leaving Certificate and post schooling decisions. It provides details relating to their educational achievement to date, other family and socio-economic background indicators and views in relation to the key influences upon which they make decisions about college. It analyses aspects such as composition of schools participating in the survey, their school type and geographic dispersion. It considers the individual students in terms of age, sex, Transition Year participation, private tuition undertaken at Junior and Leaving Certificate and hours engaged in part-time work. The factors which influenced their college and course decisions are examined including the person(s) who most influenced their post schooling plans.

Results show that students demonstrate a strong preference for honours degrees with over 80% of students indicating that if they received two Central Applications Office (CAO) offers, at Level 8 and at Level 7/6, they would accept the Level 8 honours degree offer. The most influential factor in respect of their choice of college is their attraction towards choosing the college that offers the best course in the discipline that they intend to study. While course factors such as career prospects post qualification, the opportunity to study abroad and industrial placement as part of the course are of interest, the

primary course factor is that students wish to study a course in which they have a strong interest (57.3%).

The most influential person in student decisions about college and courses is their mother (41%), with guidance counsellor (12.8%), older sibling (8.8%) and father (8.1%) being less influential, when students were asked to rank the most influential person. Recent work by Smyth and Banks (2012) finds variations as between students in a middle class school and a socio-economic disadvantaged school such that those seen as very important for middle class students are fathers (34%), mothers (30%), guidance counsellor (17%) and friends (12%). This contrasts with the students in the working class school they studied where mothers (75%), fathers (60%) and friends (40%) were most important to them in their post schooling decisions, when allowing for more than one answer. This thesis shows that overall the most important sources of information upon which decisions were made, in rank order, were college publications/prospectuses, open days and the internet. Again this may differ depending on the family and institutional habitus to which a student can draw on, with middle class students having the advantage of a larger number of family and school networks when contrasted with students from lower classes.

In respect to the key indicators which result in a good reputation for a higher education institution, the highest factor was a ‘high standard of lecturing staff’ (31.2%) and internationally recognised qualification (29.9%). Non college applicants cited reasons such as a wish to ‘get a job and start a career’ (20.2%) and ‘going to do an apprenticeship’ (17.6%) for their not making a CAO

college application. This may be reflective of the opportunities at the time of the survey in the construction sector when demand for both apprentices and unskilled manual workers was high.

The chapter is structured such that we initially consider individual, school, family and distance factors which may influence student intentions and expectations. We then examine the higher education application process, also taking account of the reasons for non-application before reviewing the factors which students view as having an influence on their decision. We discuss the concept of reputation and rankings and conclude with an analysis of the guidance and supports which students avail of when they are making their post schooling decisions.

3.2 Description of Sample

This section considers the responses of students with particular reference to their educational experience at second-level. We examine initially their academic progress through their Junior Certificate, before considering other related aspects such as Transition Year participation, levels of engagement in part-time work and private tuition (‘grinds’) and subject plans for their Leaving Certificate. This is augmented with the distance issues which arise for them before concluding the section with a review of their family occupation and educational profile.

Junior Certificate

The introductory chapter of the thesis described the Junior Certificate and its place in second level education in the Republic of Ireland. Actual student

results in their Junior Certificate examinations are included in the models in subsequent chapters as the prior academic attainment variable. Results from the sample indicate that the average number of Junior Certificate subjects taken was 9.41, a standard deviation of 1.678 with both median and the mode values being 10 subjects. This compares to the average number of subjects at Leaving Certificate of 6.92, a standard deviation of 1.328, and median and mode of 7. The National Council for Curriculum and Assessment (NCCA) recommended recently to the Minister of Education and Skills that the maximum number of examination subjects a student should take at Junior Certificate would be eight. This would provide an upper limit of subjects for students intending to take the examination in 2017 (for students entering second-level in 2014). Research by the ESRI (e.g. Smyth et al. 2007, Smyth, 2009) informed new developments in the Junior Cycle proposed by the NCCA. Coupled with this change is a reduction in the content of syllabi in order to allow a broader attainment by students of six key skills, examples of which are 'Working with Others' and 'Managing Information and Thinking', with a blended assessment approach overall between school reports and State Examinations across each of the subjects, in a 40/60 proportion[19].

The Table below summarises the Junior Certificate subjects taken by the respondents. As one would expect, English and Mathematics have the highest number of examination candidates. Of note is that some students had taken Religious Education which had recently been introduced as an examination subject in the Leaving Certificate. A subject which differs from the Leaving

[19] National Council for Curriculum and Assessment (2011). *Innovation and Identity – Schools Developing Junior Cycle.*

Certificate is Civics, Social and Political Education, of which 84% of the students had taken in a Common paper.

Table 3.1: Subjects taken in the Junior Certificate

Subject	Number of Candidates	Number in Survey*	% of Cases in Survey
English	58,716	5,051	99.7
Mathematics	58,441	5,047	99.6
CSPE**	57,526	4,269	84.3
Irish	53,979	4,819	95.1
Geography	53,786	4,628	91.3
History	53,453	4,573	90.3
Science	51,,090	4,239	83.7
French	39,323	3,500	69.1
Business	37,315	3,346	66.0
Art, Craft & Design	21,592	1,663	32.8
Home Economics	20,224	1,739	34.3
Woodwork	15,902	1,233	24.3
Technical Graphics	13,387	1,256	24.8
German	11,385	1,180	23.3
Music	8,402	719	14.2
Metalwork	8,317	638	12.6
Religious Education	5,787	243	4.8
Technology	3,188	213	4.2
Spanish	2,750	138	2.7
ESS***	588	22	0.4
Classical Studies	580	34	0.7
Latin	503	40	0.8
Typewriting	440	22	0.4
Italian	334	6	0.1
Ancient Greek	39	1	0.0
Physical Education		6	0.1
Total Responses	577,047	48,619	

Source: Department of Education and Skills. Statistics Database (Examinations).
*107 missing cases, 5067 valid responses, ** Civic, Social and Political Education
*** Environmental and Social Studies.

Transition Year Participation

Following the Junior Certificate, some students have the option of participating in a Transition Year. The sample group was asked if they had taken Transition Year, which is a programme which is intended to encourage a broader social and vocational development for students. It is expected to be less focussed on the preparation for examinations. The following Table shows the numbers who participated in Transition Year and those who did not with gender profile included for each.

Table 3.2: Transition Year participation by gender

	Male	**Female**	**Total**
Transition Year – Yes	757 (29.9%)	1,115 (42.5%)	1,872(36.3%)
Transition Year - No	1,771 (70.1%)	1,508 (57.5%)	3,279 (63.7%)
Total	2,528	2,623	5,151

Over one-third of the sample students (36.3%) undertook Transition Year. The breakdown by gender shows that only 29.9% of males undertook transition year compared to 42.5% of females. One explanation for this may be found in Smyth et al. (2004) which is a study of Transition Year provision in schools who found in 2001 that '*..girls' secondary schools are found to have significantly higher levels of provision than other school types with particularly low levels of provision within the vocational sector* ..' (p. 20). The authors further go on to state that '*..small schools and schools with a concentration of students from disadvantaged backgrounds are less likely to have access to Transition Year...*' (p.39).

Of those who took Transition Year, 94.8% of the sample did work experience during the year, with only 47% stating that they would like to work long term in the same broad area as their Transition Year when they finish their education. The fact that a large number of students stated that they would not wish to work in the same area may not be a negative aspect of the Transition Year programme. It could be argued that knowing that it is an area of work one would not like to pursue can be a beneficial outcome as it may allow for a concentration on other areas of interest during the senior cycle. Smyth and Calvert (2011) conclude, in a longitudinal study of a student cohort who were studied on their journey through second-level, that the Transition Year is a positive experience for most students, with the additional year allowing a better choice of subjects to be chosen for senior cycle. This is when compared with students who did not take Transition Year who sometimes view that they made their senior cycle subject choices without sufficient information or the without the possibility of 'tasting' subjects which the Transition Year can afford. In their work, Smyth and Calvert (2011) do state that some teachers in working class second-level schools which offer Transition Year have stated there are difficulties in offering a Transition Year as it may impede students from staying on at school and consequently lead to a higher drop-out rate in the school.

Part-time work while at school

Whether or not a student engaged in part-time work is an independent variable which is modelled in subsequent chapters. The questionnaire separated 5th year from 6th year so as to distinguish between the pre-Leaving Certificate year,

and the more intensive final year itself to ascertain the change in the level of engagement by students in part-time work during senior cycle.

Table 3.3: Part-time work by gender – 5th Year

		Male	Female	Total
	Part-time Work – yes	1,022 (43.64%)	1,159 (46.38%)	2,181 (45.05%)
	Part-time Work - no	1,320 (56.36%)	1,340 (53.62%)	2,660 (54.95%)
Total		2,342	2,499	4,841

Missing cases: 333 (6%)

From Table 3.3, it can be seen that 45% of students had a part-time job in 5th Year. The difference in percentage terms between males and females is marginal, with 43.64% of males indicating that they worked compared to 46.38% of females. The study was conducted in 2005 at a time when there was a high availability of part-time work due to a buoyant economy. In 6th Year, as one would expect the percentage who are working part-time falls to 35% as against 45% in 5th Year. However, given that this is a very intensive year for second-level students, with time required over and above school activity to research options after leaving school, the fact that more than one-in-three students were still working part-time is noteworthy.

A further question asked respondents to quantify the number of hours they worked on a part-time basis per week. The comparison between 5th Year and 6th Year is contained in Table 3.19.

Table 3.4: Comparison between part-time work in 5th and 6th Year

	Number of Students	Mean hours per week	Std. Deviation
Hours working per week-6th year	1,665	11.79	7.48
Hours worked per week-5th year	2,137	14.81	8.32

For 6th year, there is both a drop in the number of students undertaking part-time work and also a drop in the average hours worked per week, from almost 15 hours per week on average to approximately 12 hours per week. The Department of Education and Science's Report of the Task Force on Student Behaviour in Second Level Schools (2006) points to the changing pattern of part-time employment which may have been in the past necessary for financial reasons. However, the report questioned whether the high level of part-time working was '*funding a lifestyle that is potentially destructive*.' There is a danger that part-time work may reduce a student's attention span and engagement while in school, resulting in fatigue and a failure to submit school assignments. The report does accept that for some students part-time work is an economic necessity for household income, but conclude that for others it is to maintain a preferred lifestyle.

Research undertaken by Mc Coy and Smyth (2004) studied the influences of part-time work while students are in school. They conclude that there is an increased likelihood for those who work more than 10 hours per week to become early school leavers. Furthermore their data shows that any work over 10 hours per week leads to underperformance in the Junior Certificate by all

candidates. When it comes to Leaving Certificate, they conclude that all levels of part-time work have a negative influence on examination performance. They additionally state that '*There is some evidence of social class background having an increasing impact on participation in part-time work, particularly in terms of engagement in more time-intensive jobs; with students engaging in more intensive work increasingly less likely to be from economically advantaged backgrounds.'* (p.104).

Private Tuition ('Grinds') while in Secondary School

There is wide public interest in the level of private tuition which students pay for outside of school (or 'grinds') and the ability of families to afford it. Given the importance of 'grinds' in the experience of many Irish students at second-level, whether or not a student availed of private tuition is included as an independent variable in the econometric analyses which follow in subsequent chapters. Students were asked if they received 'grinds' in Junior or Leaving Certificate year for which they or their parents paid. The following Tables show the results from the survey.

Table 3.5 Private Tuition ('Grinds') in Junior Certificate year

	Male	Female	Total
Grinds - Yes	524	596	1,120
	22.2%	24.1%	23.1%
Grinds - No	1,840	1,879	3,719
	77.8%	75.9%	76.9%
Total	2,364	2,475	4,839

From Table 3.5, it may be seen that 23% of students availed of private 'grinds' which they paid for, in the Junior Certificate year, with a slightly larger percentage of girls than boys taking 'grinds'. These results are similar in findings by Smyth (2008, 2009). The comparative data for the Leaving Certificate level is contained in Table 3.6.

Table 3.6 Private Tuition ('Grinds') in Leaving Certificate year

	Male	**Female**	**Total**
Grinds – Yes	1,055	1,273	2,328
	43.3%	49.7%	46.6%
Grinds – No	1,383	1,286	2,669
	56.7%	50.3%	53.4%
Total	2,438	2,559	4,997

The percentage of students taking grinds increases from 23.1% at Junior Certificate to 46.6% at Leaving Certificate, thus more than doubling the percentage. In each case, there is a higher percentage of females availing of grinds than males, over and above the larger number of females in the survey. It is of note that almost 50% of the students took 'grinds' of one form or another, with an analysis of the data showing that 78% of those taking 'grinds' in Junior Certificate also took 'grinds' for Leaving Certificate. Smyth et al. (2011) in a post-primary longitudinal study which followed a cohort of students through second level find that almost 50% of students taking private tuition outside of school, a pattern which they found is sharply differentiated by social background. Other research by Smyth (2008, 2009) questions the benefit of grinds and concludes that '*all else being equal, taking grinds does not yield a net advantage in terms of grades for upper secondary students'* (2009, p.18). Smyth argues that the percentage of time which students spend

taking shadow education is small relative to the time they are in school or in the family setting over the whole of their educational career and so these factors have a much greater impact than private tuition outside of school.

Leaving Certificate - Number of Subjects

Having considered the profile of subjects students took at Junior Certificate level, as well as other influences such as Transition Year participation, part-time work and private tuition outside of school, we now consider the subjects students were taking in their Leaving Certificate. Students also indicated whether they were taking them at Honours, Ordinary or Foundation levels at that stage, a small number of months before their final examinations. The number of subjects, with frequencies for each, is contained in Table 3.7.

Table 3.7: Number of subjects taken in the Leaving Certificate

Number	Frequency	Percent
0	143	2.8
2	1	.0
3	3	.1
4	4	.1
5	55	1.1
6	457	8.8
7	3,379	65.3
8	1,069	20.7
9	55	1.1
10	8	.2
Total	5,174	100.0

The average number of subjects is 6.92 with a standard deviation of 1.328. Given that higher education institutions score an applicant's 'best six subjects' in their Leaving Certificate examination, one can see that students generally opt to take at least one additional subject to provide an 'insurance' subject in case they have a relatively poor outcome in one subject in their Leaving

Certificate Examination. Another reason is that many students take Mathematics at Ordinary Level (in 2005 this percentage was 70.48%, compared to 18.86% at Higher Level and 10.66% at Foundation Level. The respective candidate totals, in absolute terms, 36773, 9843 and 5562 for the 52,178 candidates who presented for Mathematics)[20]. Given that for CAO points scoring purposes points are taken from the best six subjects, it means that students will be accumulating their points score from six honours subjects in that case (with Mathematics as their seventh Ordinary Level subject). It should be noted that Mathematics is not a requirement for some courses for university entry e.g. the Arts intake in the constituent universities of the National University of Ireland which admit approximately 6,000 students annually to programmes in the humanities and social sciences.

A cross-tabulation showing the number of subjects taken by students who are repeating their Leaving Certificate shows that the majority, 112 of the 182 students, were taking only 6 subjects while 49 students were taking 7 subjects. The admission policy whereby colleges allow students to present essential subjects over any number of years means that students who are repeating the Leaving Certificate have the option of not presenting such subjects as Irish, Mathematics, or a Third Language. These may be carried forward from the previous Leaving Certificate sitting and included in the scoring algorithm by the CAO. Therefore they qualify for eligibility, although this rule does not apply for entry to medical degree programmes currently where all subjects have to be presented in the same sitting.

[20] Source: Department of Education and Skills, Statistics Database (Examinations).

Another factor which has recently become prevalent in relation to third level admission is the number of students who seek an exemption from the subject Irish. This may be either on the basis of not being born in the Republic of Ireland, or having been born in the Republic of Ireland and later emigrating with parents, and returning to the country after the age of 11. Another group are students with a disability, who have a psychologist's report indicating a reasonably high level of dyslexia who can apply for exemption from both Irish and the Third Language requirement from the National University of Ireland. This has led to a decline in the relative numbers taking Irish and a 'Third Language' (other than English) in the Leaving Certificate in recent years. Looking at the trend, 85.37% of students took Irish of those taking the Leaving Certificate in 2001, compared to only 82.49% in 2010. In addition to the above factors, changing demographics and increasing diversity in the Republic of Ireland, especially from the mid 1990's, has meant that many students entering the second level school system are currently non-Irish citizens and thus automatically exempt from taking Irish for their second-level examinations.

The Table below sets out the range of subjects which respondents stated they were taking in the Leaving Certificate, and this is compared to the numbers who took the subject in the national population.

Table 3.8 Numbers taking each Leaving Certificate Subject

Subject	Total Candidates*	No. in survey	% of cases
Mathematics	52,178	4,875	97.7
English	51,524	4,839	97.0
Irish	47,436	4,592	92.0
French	30,592	2,939	58.9
Geography	28,092	2,702	54.1
Biology	25,362	2,137	42.8
Business	20,506	1,762	35.3
Home Economics, Social & Scientific	14,459	1,344	26.9
LCVP Link Modules**	14,253	1,012	20.3
History	10,307	1,012	20.3
Art	10,237	968	19.4
Construction Studies	9,020	1,046	21.0
Physics	7,944	699	14.0
German	7,924	862	17.3
Chemistry	7,366	634	12.7
Accounting	7,023	681	13.6
Technical Drawing	5,775	582	11.7
Engineering	4,890	512	10.3
Economics	4,799	423	8.5
Music	4,695	419	8.4
Agricultural Science	3,625	481	9.6
Spanish	1,972	141	2.8
Applied Mathematics	1,366	116	2.3
Classical Studies	816	29	0.6
Physics with Chemistry	737	109	2.2
Economic History	310	32	0.6
Italian	284	10	0.2
Arabic	126	4	0.1
Russian	111	0	0
Latin	98	21	0.4
Agricultural Economics	89	3	0.1
Hebrew	0	3	0.1
Religious Education	76	0	0
Japanese	40	0	0
Totals	307,601	34,989	

***Source: Department of Education and Skills. Statistics Database (Examinations)**
****LCVP – Leaving Certificate Vocational Programme,***184 missing cases; 4,990 valid cases**

The subject with the highest number of candidates in the sample is Mathematics with 4,875 students stating that they were taking it, which represented 97.7% of all respondents. As some students are repeating their Leaving Certificate they may have opted not to take Mathematics. As one would expect there was a large number of candidates for English (97%) and Irish, with Irish being 4,592 or 92%. Adding together those who indicated that they are studying a third language, ie combining French, German, Spanish, Italian, Latin, Hebrew and Arabic the total percentage of cases is 79.8%. Thus, approximately one in five students are ineligible to apply to many of the degree programmes in any of the constituent universities of the National University of Ireland (NUI) which require a third language. The number of ineligible students may be higher as some students may be taking more than one language. Smyth et al. (2011) in a longitudinal study of students in second level find many students in senior cycle are of the opinion that they made incorrect choices regarding their Leaving Certificate subjects. Some were of the view that their school could have been more proactive in allowing them 'taster' opportunities to sample a range of subjects so they would have made better choices for senior cycle. This factor is considered further in a later section which reviews restrictions on college and course choices due to specified Leaving Certificate subjects as a prerequisite for admission.

Distance

A key part of the research considers the effect of distance, specifically in relation to school distance to universities, and its influence on college intentions. In this context, it is noteworthy to examine the current distance that

students are travelling to school, in miles. Separately in the analyses in subsequent chapters we are able to compute the distance from each school to each of the universities, using geo-coding methodology as explained in the previous chapter, with an emphasis taken in this research on each school's nearest university.

Table 3.9: Distance from second level school in miles

Mean Number of Miles	5.0729
Std. Error of Mean	.09294
Median	3.0000
Mode	1.00
Std. Deviation	6.51873
Valid Responses	4919

The above table shows that the average distance for students from their school is approximately 5 miles. The mode distance is 1 mile (739 students) which would arise from the fact that many of the schools are based in urban/town areas and would draw their intake from the local resident population. Thirty five of the schools from the total group of 105 schools are based in an urban setting. Ninety three students mentioned that they have 'zero' miles or distance to travel each day, which may be explained by the fact that some of the respondents are boarders, and others who live adjacent to their school.

Distance to First Preference College

Respondents were asked to indicate the approximate distance from their home to the institution they indicated as their first preference. Comparisons can be made between both CAO Level 8 and Level 7/6 lists.

Table 3.10: Distance from higher education institution

		Level 8	Level 7/6
Number		2616	1754
Mean		54.22	45.61
Median		45.00	35.00
Std. Deviation		49.41	45.35
Percentiles	25	17.00	15.00
	50	45.00	35.00
	75	80.00	65.00

It is noticeable that the mean, median and mode distances in the case of the honours degree list are larger than for the ordinary degree/higher certificate (7/6) list. The margin of approximately ten miles holds for each of these measures, with a higher standard deviation around the mean for the honours degree list. This result is to be expected given the fact that the vast majority of the courses in the Level 7/6 list are offered in the more geographically dispersed Institutes of Technology around the country.

Approximate travel time from home in hours

A question related to distance is that of journey time for students. This may not necessarily correlate with distance given that many students rely on public transport. Table 3.11 details the comparative data for both lists.

Table 3.11: Approximate travel time in hours for both lists

	Level 8 List	Level 7/6 List
Number of respondents	2,662	1,812
Mean	1.18	0.96

The mean journey time is shorter for the Level 7/6 courses given the preponderance of more regionally based Institutes of Technology courses as mentioned above. For Level 8 courses, the average time is over one hour. However, it is still the case that the average time for a student to travel to their Level 7/6 college of choice is almost 1 hour.

Travel home whilst at college

Students were asked to compare how often they would like to be able to travel home when they were at college, as against how often they would realistically feel they will be able to travel home. The differences may be compared as follows:

Table 3.12: How often would students like to travel home

	Frequency	Percent
Live at home	981	27.2
2-3 times every week	266	7.4
Once every week	1,595	44.2
Every 2 weeks	371	10.3
Every 3 weeks	72	2.0
Every month	103	2.9
Less often	69	1.9
Don’t know	152	4.2
Total	3,609	100.0

This was contrasted with a more ‘realistic’ question which examined their expectations as outlined in the following table.

Table 3.13 Realistically, how often students think they will travel home

	Frequency	Percent
Live at home	980	27.0
2-3 times every week	158	4.4
Once every week	1,573	43.4
Every 2 weeks	444	12.3
Every 3 weeks	92	2.5
Every month	122	3.4
Less often	79	2.2
Don't know	175	4.8
Total	3,623	100.0

The one area which is different is for those students who would like to travel home 2 or 3 times a week (7.4%) but a smaller number realistically feel they will be able to travel 2 or 3 times a week (4.4%).

Peer and Family Characteristics

A possible influence for students considering college is the number of their peers from their school who they perceive will also go to college. Students were asked, in their opinion, what percentage of students in their school who were sitting the Leaving Certificate would be progressing to higher education. This is used as an independent variable in our analyses in Chapters 4 and 5.

Table 3.14: Perception of percentage of students in the school who will go to college

Number of responses	4587
Mean	69.23
Std. Deviation	19.57

From Table 3.14, it may be seen that the average of the perception of the percentage of peer students who would be going to college is over 69%. In 2005, 60,124 applicants had applied to the CAO by 1st February for college

admission (63,716 by September, 2005). Excluding mature applicants, and applicants from outside the Republic of Ireland, there were a total of 47,718 seeking admission by 1st February with an additional 1,142 applying later in the season before August. This includes both Leaving Certificate and FETAC applicants as well as re-applications from students in existing higher education institutions, of whom 20,671 subsequently accepted a Level 8 honours degree place and 10,908 accepted a Level 7/6 list place by mid-October that year, an admission rate of 64.63%. Some unsuccessful applicants would have progressed to courses outside the CAO, for example in colleges of further education taking FETAC Level 5 courses, with a view to regaining entry the following year to a college or university in the CAO system.

Parental situation with regard to employment

Students were asked to best describe their father's and mother's current employment status. Table 3.15 outlines the responses in relation to fathers' current situation with regard to employment.

Table 3.15: Father's current situation with regard to employment

	Frequency	Percent
At work as an employee	2,279	49.6
Self employed with no employees	881	19.2
At work as an employer	801	17.4
Retired	164	3.6
Deceased	131	2.9
Unable to work due to disability	118	2.6
Unemployed	96	2.1
Other	83	1.8
Engaged in home duties	41	.9
Total	4,594	100.0

As can be seen from Tables 3.15 and 3.16, more fathers are engaged in work outside the home than mothers, with substantially more mothers engaged in home duties (27.1%) compared to 0.9% of fathers. Larger percentages of fathers are working as employers or self employed with no employees.

Table 3.16: Mother's current situation with regard to employment

	Frequency	Percent
At work as an employee	2468	53.3
Engaged in home duties	1255	27.1
At work as an employer	247	5.3
Self employed with no employees	189	4.1
Unemployed	185	4.0
Unable to work due to disability	100	2.2
Other	80	1.7
Retired	52	1.1
Deceased	52	1.1
Total	4628	100.0

Highest level of education reached by parents

A key question in the survey asked what the highest level of education students' fathers and mothers had attained which is used as an independent variable in the models in subsequent chapters.

Table 3.17: Highest Level of Education – Father

	Frequency	Valid Percent
None/primary not completed	116	2.5
Primary or equivalent	655	14.3
Junior/inter/group cert or equivalent	1,217	26.6
Leaving cert or equivalent	980	21.4
Diploma/cert	387	8.5
Primary/first degree or higher	609	13.3
Don't know	607	13.3
Total	4,571	100.0

Table 3.18: Highest Level of Education - Mother

	Frequency	Valid Percent
None/primary not completed	59	1.3
Primary or equivalent	399	8.7
Junior/inter/group cert or equivalent	989	21.5
Leaving cert or equivalent	1,443	31.4
Diploma/cert	503	10.9
Primary/first degree or higher	627	13.6
Don't know	578	12.6
Total	4,598	100.0

This question enables an exploration of the relationship between parental education and the educational aspirations of their children. From the Tables it may be seen that mothers' level of educational attainment is marginally higher than fathers' as is evidenced by the percentages with degrees, diplomas/certificates as well the Leaving Certificate.

Number of older siblings

In later Tables we see that the primary influence in relation to college and course choices for 8.8% of applicants was an older sibling. Ceja (2006) in a study of students in California finds that older siblings replace parents as information sources in many instances when parents are unable to assist with the college application decision. Over 50% of respondents indicated that they did not have an older brother, which was similar to the response in relation those indicating they did not have an older sister.

Table 3.19: Number of older brothers

	Frequency	Valid Percent
0	2,697	54.1
1	1,326	26.6
2	562	11.3
3	241	4.8
4	94	1.9
5	32	.6
6 or more	30	.6
Total	4,982	100.0

Table 3.20: Number of older sisters

	Frequency	Valid Percent
0	2,742	55.0
1	1,271	25.5
2	623	12.5
3	220	4.4
4	74	1.5
5	27	.5
6 or more	25	.5
Total	4,982	100.0

This section has considered the sample responses regarding aspects of the second-level experience of school leavers, as well as distance and family attributes. The next section extends this to consider the higher education application process.

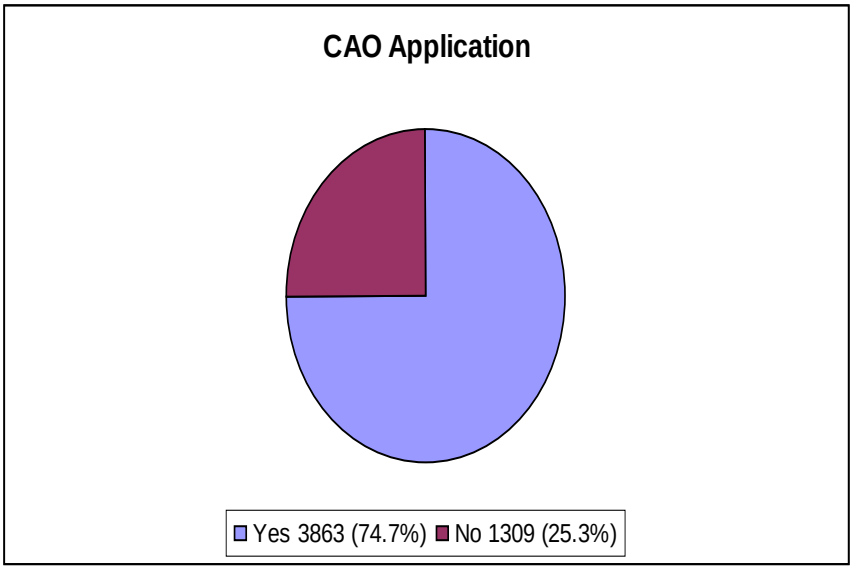
3.3 The Higher Education Application Process and reasons for not applying

The central focus of the research is to understand the influence of individual, school, family and regional characteristics on the intentions and expectations of Irish Leaving Certificate students. A milestone in the final year of secondary school is the student's college application submitted through the Central Applications Office (CAO). As discussed in Chapter 1, the CAO is a not for profit, limited by guarantee, company independent from the State, which is responsible for processing college applications on behalf of the higher education institutions in the Republic of Ireland for first year admission.

Almost three-quarters of the students indicated that they had applied to the Central Applications Office for a place in college. The survey was conducted directly after the CAO initial closing date which is February 1st. Approximately one-quarter, 1309 or 25.3%, did not apply to the CAO. We can estimate that 249 students who were taking the Leaving Certificate Applied programme, accounting for 5% of the sample, did not apply to the CAO as progression from the Leaving Certificate Applied to higher education is not

currently available. We will address the reasons why students did not apply through the CAO later in this chapter.

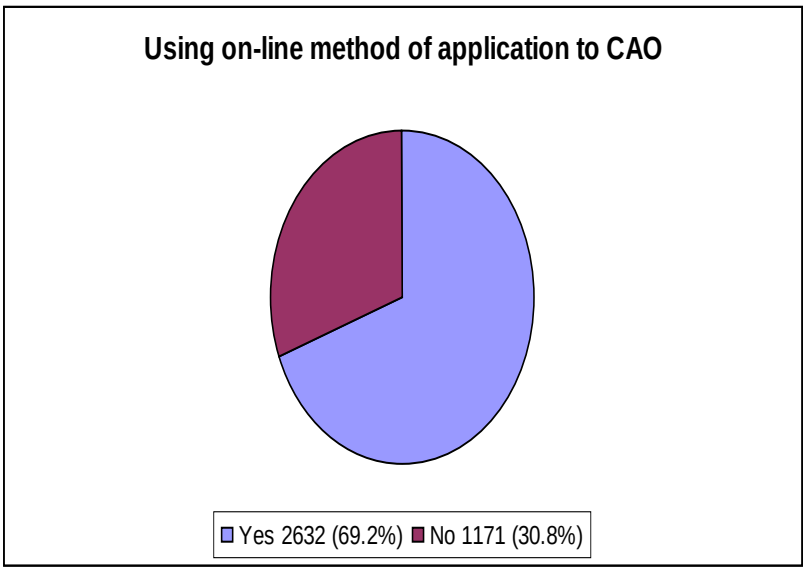
Figure 3.1: Application to 3rd level through Central Applications Office



Method of Application

There are two methods of application to college through the CAO, the traditional paper application form and an on-line process of application.

Figure 3.2 Percentage of applicants using on-line method of application



The ratio of on-line to paper application is more than two to one, with approximately 70% of students (2,632) stating that they had applied on-line. There were marginally more females applying on-line than males. The CAO release statistics on the number of applicants who choose the on-line method annually and in 2005 this was 73%, which is similar to the indications in the sample (69.2%). In the most recent application period, 2012, the on-line percentage had increased to 98.4%, compared to only 1.6% on paper (comparative figures for 2011 were 97% and 3%)[21]. The increased number is possibly assisted by the increased availability of broadband in family homes and second-level schools in recent years.

Choices on CAO Form

A key question in the survey asked students to identify to which college(s) they had applied on their CAO application form. The levels on the CAO application form which are part of the National Framework of Qualifications,

[21] CAO Management Summary Statistics Circular to participating institutions, March 2012.

at Levels 6,7 and 8 were discussed in Chapter 1. On the Honours Degree list, there are ten possible choices for students, with the frequency table of the number of choices by students as follows:

Table 3.21: Frequency of number of courses on Honours Degree list

Preference	Frequency	Percent
0	670	17.3
1	495	12.8
2	450	11.6
3	574	14.9
4	458	11.9
5	378	9.8
6	236	6.1
7	165	4.3
8	424	11.0
9	10	.3
10	3	.1

The average number of preferences per student in the CAO in 2005 was 5.97 for the Level 8 list and 4.53 for the Level 7/6 list. This reflects the fact that there are fewer courses on the Level 7/6 listings in the CAO Handbook but also that there is generally a higher preference for Level 8 Honours Degrees than Level 7/6 qualifications (Ordinary Degrees/Higher Certificates). In 2012, these averages have changed to 5.71 and 3.98, which indicates a lower number of course choices per application, even allowing for the fact that there are many more courses in the CAO today (1,330 made up of 874 at Level 8 and 456 at Level 7/6). A number of students indicated no preferences, which is not unusual as students have until July 1st annually to apply to any non-restricted course (the closing date for restricted courses which involve tests and/or portfolios is February 1st). There is a late application fee after February 1st so one can see from the above table that there are a number of students (17.3%)

who apply and subsequently insert their choices later in the application season, with July 1st being the final deadline for course application.

Choices for Ordinary Degree/Higher Certificate List

As on the Honours degree list, applicants have the option of indicating preferences from one to ten on their CAO application. The equivalent responses for the Ordinary Degree/Higher Certificate list are contained in Table 3.22 below.

Table 3.22: Frequency of choices on the Ordinary Degree/Higher Certificate list (Level 7/6)

Preference	Frequency	Percent
0	1,652	42.74
1	822	21.27
2	522	13.51
3	330	8.54
4	219	5.67
5	100	2.59
6	73	1.89
7	40	1.03
8	105	2.72
9	1	0.03
10	1	0.03
Total	3,865	

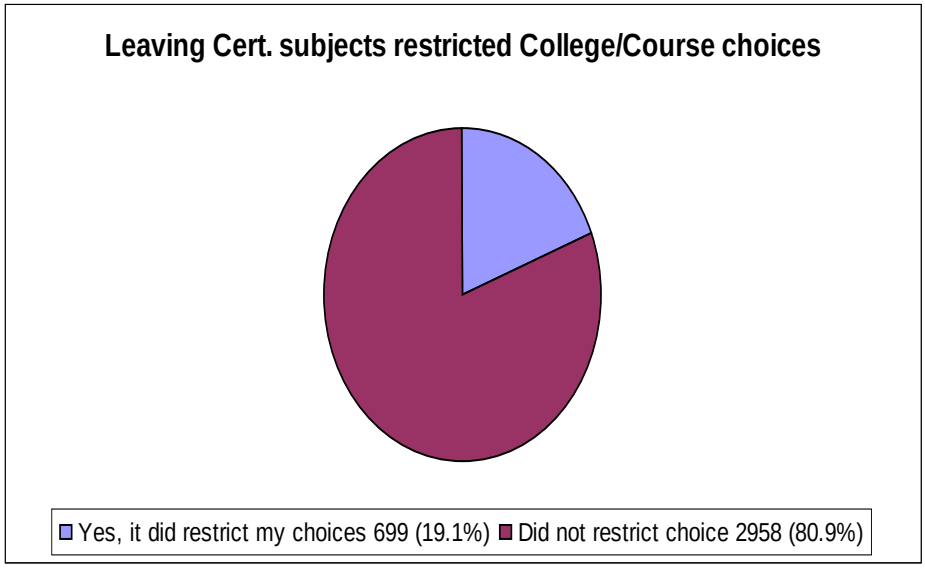
There is a marked difference between the spread of choices for the Level 7/6 list for Ordinary Degree/Higher Certificate with almost three times as many students stating that they did not apply to a course on this list, compared to the Level 8 list. The courses on the Level 7/6 list are generally offered by the Institute of Technology sector, with many of the courses having progression possibilities to honours degrees so they provide a valuable alternative route. However, some students apply to honours degree courses only and do not include Level 7/6 choices, on the expectation that they will attain the required

points for one of their honours degree choices. The converse is true in a number of cases where students are not taking at least two subjects at honours level in their Leaving Certificate, and thus while eligible for the Level 7/6 list, they would not be eligible for a Level 8 honours degree programme.

Restriction on Choices due to Leaving Certificate subjects

Choices of Leaving Certificate subjects are made during Transition Year and/or towards the end of Junior Certificate year. In some cases the choice of subjects can restrict college and course choices subsequently. Students were asked if their Leaving Certificate subjects had restricted the choices they made at Leaving Certificate. In research by Smyth et al. (2011), which considered a post-primary longitudinal cohort of students going through second-level, they state that '*The high proportion of students who regret taking particular subjects would also appear to point to a lack of sufficient guidance at the time of transition to senior cycle'* p.230. The net effect of these incorrect subject choices is that they can limit the follow-on opportunities which are available to students.

Figure 3.3 Leaving Certificate subjects which restricted college/course choices

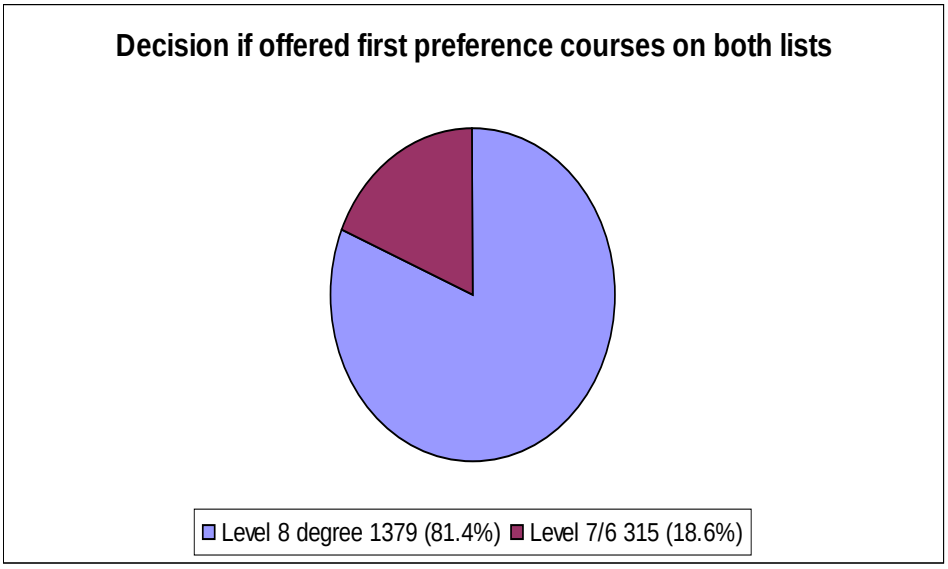


One in five students (19.1%) indicated that their Leaving Certificate subjects restricted their choices. The main reasons were the fact that students had not taken a third language which restricted some of their university choices, the lack of Honours Mathematics for Level 8 honours engineering degrees and also the absence of honours Irish which is a prerequisite for admission to primary teacher Bachelor of Education degrees in the Republic of Ireland as well as other restrictions.

Preference between Honours Degree as against Ordinary Degree or Higher Certificate

Students were asked which they would choose if they got offers for both their first preferences i.e. their top choice on both lists. Their responses are indicated below.

Figure 3.4 Applicant decision if offered a place on both lists



It is clear that students have a strong preference for an honours degree programme. Over four out of every five students would take their honours degree list offer if they had both choices. This explains the fact that approximately 25,654 applicants received an offer in 2005 which was not accepted on the Level 7/6 list, with the comparable figure for Level 8 refused offers being 11,059 during the offer season[22]. It should be noted that this includes all rounds of offers so there is possible duplication as the same applicant may get numerous offers, of higher preferences, in a number of offer rounds which may not be accepted.

Reasons for not applying to the CAO

Approximately 25% of students surveyed did not make a CAO application, which is a marginally higher percentage than the actual turnout of Leaving Certificate students in the country where 22% of the relevant students did not complete a CAO application, but indicates the representativeness of the

[22] Source: Central Applications Office, Annual Report 2005.

sample. The reasons students did not make an application to the CAO are outlined below.

Table 3.23: Reasons why students did not make an application to the CAO.

	Yes	No	% Yes
Get a job and start a career	480	492	20.2%
Going to do an Apprenticeship	417	567	17.6%
LC followed by work	325	667	13.7%
No interest in any further education	231	725	9.7%
Course outside CAO	217	743	9.2%
PLC followed by college	214	756	9.0%
Travel abroad then work	132	828	5.6%
Other reason	101	908	4.3%
Travel abroad then college	99	866	4.2%
Work in family business or farm	73	891	3.1%
Go to college in NI or abroad	55	906	2.3%
Repeat the Leaving Certificate	27	937	1.1%
Total	2,371	9,286	

The above table shows the multitude of reasons for non-application for higher education in the Republic of Ireland and in many cases there is more than one intended pathway after finishing school. The largest number (480, 20.2%) indicated that they wished to get a job immediately after school and start their career (similar to findings by Connor et al. (2001) for the UK case). This was above the next ranked reason which was those who stated that they were going to do an apprenticeship (417, 17.6%) after second-level. At the time of the survey, there were a large number of apprenticeship opportunities in various

trades due to the buoyant construction sector. It is interesting to note the number who had decided to do a Post Leaving Certificate Course (PLC) either to work thereafter (325, 13.7%) or indeed as a route to college (214, 9.0%). PLC routes were initially pathways on to Levels 6 and 7 courses only but this has recently expanded to include Level 8 courses at university. A number of courses were outside the CAO e.g. CERT and Teagasc. This was the reason that 217 students stated that they had not applied to the CAO. A small number (27, 1.1%) were already of the view in February/March that they would repeat the Leaving Certificate examination. Many of the CERT courses, in the catering sector, which were outside the CAO system at the time have now been integrated into the CAO through their provision in Institutes of Technology.

3.4 Factors of Influence in the College Decision

Students were asked to indicate on a 5 point scale, the college factors which they considered very important, important, not very important, not at all important or indeed did not apply. Table 3.24 sets out the relative importance of the 'Very Important' factors.

Table 3.24: 'Very Important' factors for Level 8 Honours Degrees

Factor	Number	% of Responses	% of Cases*
Social life in the college	1,590	11.4	49.9
Internationally recognised qualification	1,491	10.7	46.8
Range of possible options within course	1,466	10.5	46.0
College offers best course in that discipline	1,423	10.2	44.7
Academic facilities	1,209	8.7	37.9
Campus environment	1,190	8.6	37.3
Leisure and Sport facilities	1,107	8.0	34.7
Good transport links to the college	1,032	7.4	32.4
General reputation of the college	955	6.9	30.0
Campus accommodation/ Apartments	802	5.8	25.2
Wish to live away from home	644	4.6	20.2
Proximity to home address	592	4.3	18.6
Size (relatively big)	262	1.9	8.2
Size (relatively small)	155	1.1	4.9
Total responses	13,918	100	436.7

*Respondents could tick more than one factor as very important.

Students could select more than one 'very important' factor, and in this way there were a total of 13,918 factors indicated by approximately 5,000 students. The factor which received the most indications for 'very important' was Social Life in College, with 49.9% of students indicating that this was very important to them. This is modified to get the percentage breakdown on a 100 scale, of which Social Life translates to 11.4%. This was followed by responses for

‘internationally recognised qualification’ (10.7%), range of possible options within course (10.5%) and that the college offers the best course in that discipline (10.2%).

There appears to be a ‘second-tier’ of importance to areas such as academic facilities (8.7%), campus environment (8.6%) and leisure and sports facilities in the college (8%). Good transport links to the college was seen as very important by almost one in three students, with 7.4% of the responses. Surprisingly, general reputation of the college received fewer responses than any of the above (6.9%) given the importance given to it in subsequent questions, with lower levels for campus accommodation (5.8%), ‘wish to live away from home’ (4.6%), and proximity to home address (4.3%).

Whether the college was relatively large or small in relation to student numbers did not register high levels of importance; only 1.9% and 1.1% respectively.

Top three most influential factors

It is interesting to note that variations arise when respondents were asked to identify their top three most influential factors. See Table 3.25.

Table 3.25: Most influential college factor which would influence their choices

	Frequency	Percent
College offers best course in the discipline	852	27.0
Range of possible options within the course	477	15.1
General reputation of college	473	15.0
Internationally recognised qualification	397	12.6
Social life in college	228	7.2
Proximity to home address	219	6.9
Leisure & sports facilities in college	136	4.3
Good transport links to college	88	2.8
Wish to live away from home	82	2.6
Academic facilities	76	2.4
Campus environment	54	1.7
Campus accommodation/apartments	38	1.2
Size (college is relatively big)	19	.6
Size (college is relatively small)	16	.5
Total	3,155	100.0

The most influential factor is that the college offers the 'best course' in that discipline, which 27%, or more than one in four students, indicated that this was the most important factor. Next in importance was the 'Range of Possible Options within my chosen course' which 15.1% of students ranked as the most influential factor. Whereas 'Social Life in College' registered as most important on a simple single option scale, when the top three single factors are taken into account, it is noted that there is a switch to fundamental academic

reasons such as the college offering best course in the discipline and range of possible options within the course. Indeed 'Social Life' (7.2%) falls in relative importance to fifth place after academic factors mentioned in addition to 'General Reputation' of the college (15%) and 'Internationally recognised qualification' (12.6%). Of minor importance are areas such as size and campus environment, factors which may have more relevance to mature applicants.

Factors of Influence – Level 8 Honours Degrees

Students were asked to identify the top course (not college) related factors which influenced their choice for the top three courses on their Level 8 Honours degree list on their CAO application form.

Table 3.26: Most influential course factors which had a strong influence on Level 8 choices

	Frequency	Percent
Strong interest in subject area	1,805	57.3
Career prospects after qualification	519	16.5
Job satisfaction	354	11.2
Potential financial earnings	242	7.7
Opportunity to study abroad	70	2.2
Other	59	1.9
Relatively low points for course	29	.9
Industrial placement, part of course	24	.8
Relatively high points for course	24	.8
Opportunity to study afterwards	23	.7
Total	3,149	100.0

The most important course factor as indicated by 57.3% of respondents was a strong interest in the subject area. The second most cited reason was career prospects after qualification (16.5%) to which one could also relate the 7.7% of students who indicated that potential financial earnings was their primary motivator. Job satisfaction was indicated by 11.2% of respondents, with the opportunity to study abroad being of paramount importance for 2.2% of the group. The other four reasons, namely relatively low or high points, industrial placement and opportunity to study afterwards at postgraduate level all registered less than 1%, showing while these reasons may be important they are not of primary importance to most students.

Factors of Influence for Level 7/6 Ordinary Degree/Higher Certificate degree courses

Students were similarly asked to identify the course (not college) related factors which influenced their top three preferences on their CAO list in respect of Level 7 and 6, Ordinary Degree and Higher Certificate courses.

Table 3.27 Course Factors which had a strong influence on Level 7/6 choices

	Frequency	Percent
Strong interest in subject area	1,230	53.1
Career prospects after qualification	400	17.3
Job satisfaction	284	12.3
Potential financial earnings	173	7.5
Opportunity to study afterwards	52	2.2
Opportunity to study abroad	44	1.9
Other	41	1.8
Relatively low points for course	37	1.6
Industrial placement, part of course	38	1.6
Relatively high points for course	19	.8
Total	2,318	100.0

As for Level 8 choices, a strong interest in the subject area was stated by 53% of respondents as being the most important reason for choosing a course. This compares to 57% for honours degree choices. This reason was followed by career prospects (17%) and job satisfaction (12%). Given the fact that there are progression routes from Levels 6 and 7 to the Honours degree options at Level 8 it is not surprising that the reason 'opportunity to study afterwards' has a higher response rate than that for Level 8 options. In addition there are more responses for 'relatively low points for course' which may indicate some applicants applying on the basis that they do not have high expectations with regard to their expected grades/points.

Other factors of influence

There are a range of other factors which can influence student choices such as Open Days, academic and non-academic scholarships, publications and other inducements. Table 3.28 sets out the responses from the students who completed the survey.

Table 3.28 Other factors of influence

	Frequency	Valid Percent
Publications/prospectus	1,487	48.9
Open day in the college(s)	948	31.2
Internet	196	6.5
Visit to college other than on open day	155	5.1
Other	97	3.2
Sport scholarship	87	2.9
Entrance scholarship	23	.8
College CD/DVD	23	.8
Radio advertisement	15	.5
Newspaper advertisement	7	.2
Total	3,038	100.0

The two most important 'other' factors which students use in making up their choices are publications (48.9%), which was a key factor for almost one in every two students and attendance at an Open Day in the college. This could be added to the 5.1% who indicated that a visit to the college on an occasion other than the Open Day was very influential for them. From the figures it appears that the impact of advertisements may be low but it could be argued that the advertisements influence mothers and fathers which then have a secondary effect as can be seen in a later section in this chapter, where some

students consult with their parents to a high degree. Similarly the advertisements can induce students and parents to attend college open days.

It could be argued that there are unintended consequences whereby many state supported colleges and universities spend significant public funds on advertising which could be prohibited by a body such as the Higher Education Authority. However, a number of colleges participating in the Central Applications Office process are private and they would not be subject to such a central direction, which could create an unfair advantage.

3.5 Reputation and Rankings

In this section we consider the role of reputation and rankings which has received increased attention by the media in recent years.

Key indicators for a 'Good Reputation'

Students were asked how important would a range of factors be in deciding that a college had a good reputation. Some of the literature considers 'prestige effects' on college applications, Ordovensky (1995), and this question considers this. Mc Donough et al. (1998) examine student characteristics in respect of those students who deem college rankings as published in special college ranking news magazines as very important in their decision as to which college to attend. They conclude that '*this study points to use of news magazine rankings as a phenomenon of high-socio-economic status, high achieving students who attend highly competitive post-secondary institutions and are focused on colleges that will both provide them with a good liberal education but that will also position them well for graduate school and*

professional opportunities." (p.530). They also highlight the fact that it is families with private resources which can afford to engage the services of a private guidance counsellor outside the school, which contributes to social reproduction in college access (Bourdieu, 1971). Also in the United States, Eff et al. (2010) provide a theoretical analysis of the economics of higher education to yield an efficiency measure relative to a minimum net-price multiple output frontier. These net prices are calculated against aspects such as published tuition fees and costs of accommodation less per average state and institutional aid provided. The quality measures they consider are SAT score enrolment, instructional expenditures per FTE (full-time equivalence) and book value of buildings per FTE. Their model provides 'efficiency' scores which indicate the distance of each institution from the 'best buy' frontier which provides the most optimal means of ranking institutions as the best buys in higher education over this set of quality measures, relative to costs. They conclude that their results suggest that the best buys, having considered the various metrics, are in the 'sunbelt' states especially in the southeastern United States.

The following table sets out the key indicators which provide for a 'good reputation' for a college which students felt were most important in the survey for this thesis.

Table 3.29 Key indicators for colleges to have a 'Good reputation'

	Frequency	Percent
High standard of lecturing staff	799	31.2
Internationally recognised qualification	766	29.9
Attend college-better career prospects	248	9.7
Good social facilities	224	8.8
Good sports facilities	165	6.5
Good transport links to college	133	5.2
Very good academic facilities	130	5.1
Good student apartments/accommodation	80	3.1
Ranking on college league tables	13	.5
Total	2,558	100.0

A high standard of lecturing staff was seen as the most important factor (31.2%) by students in determining that a college had a good reputation. The other factor which received a large response was the fact that the college was offering an internationally recognised qualification (29.9%). Attendance at college leading to better career prospects was most important for 9.7% of students. The specific response of ranking on college league tables in newspapers only received 0.5% of responses, although this may increase given higher profile of college ranking tables in recent years. It is worth noting that the lower number of colleges in Ireland relative to the UK and US mean there is less need for formal league tables *per se* with students relying on a range of other sources of information to assist them in their college and course choice decisions.

3.6 Guidance/Support in Decision Making

The person(s) that the student viewed as most influential in making their choices

Respondents were asked if they discussed or were they influenced in their choice of college and/or course by any person(s) and how important was each of a range of people in making their CAO choices.

Table 3.30: Person who was most influential in making their application choices

	Frequency	Percent
Mother	1,352	41.0
School guidance counsellor	420	12.8
Older brother/sister	290	8.8
Father	266	8.1
Advice, current students of college	210	6.4
Advice, former students of college	171	5.2
Private guidance counsellor	111	3.4
College rep came to class	100	3.0
Subject teacher	104	3.2
College rep came to school exhibition	97	2.9
Other family/relative	89	2.7
Classmates	78	2.4
School principal	6	.2
Total	3,294	100.0

A high number of students stated that the primary person with whom they discussed their choices was their mother (41%). This was followed by guidance counsellor (12.8%), older sibling (8.8%) and then father (8.1%). At the other end of the scale are school principals, and other relatives. It is noteworthy that a large number of students sought the advice of past and

current college students. Of interest is the importance of family relations including mother, father, older siblings and other relatives which together account for almost 2 out of every 3 students (60.6%). This strong parental influence was also found in recent work on the parental role in education by Byrne and Smyth (2011).

Mc Coy et al. (2006) consider guidance provision in Irish second level schools and in particular the diverse and varying roles of the guidance counsellor in the Irish setting. They conclude that there is a lack of a clear standardised framework for guidance services which results in a large variation in the nature and content of guidance services across schools. Some schools benefit from the Guidance Enhancement Initiative (GEI) which provides additional guidance hours above normal quotas under three strands:

- Assisting schools to combat early school leaving
- Promoting the uptake of science subjects in senior cycle; and
- Developing links within schools, business, voluntary, state and local agencies.

Schools in the GEI are in a more advantageous position to offer a more comprehensive guidance service, which can be extended to include an emphasis on personal support and counseling, in addition to career guidance. It is worth noting that at the time of the study 69% of the schools receiving the GEI were designated disadvantaged. While this has been a positive development, overall a number of students were critical of the guidance they received especially in junior cycle which had implications for the subjects they took at senior cycle, the type of Leaving Certificate programme they

undertook as well as their post-schooling choices. Mc Coy et al. (2006) also identify the danger of early school leaving as students were not informed of the lower life choices which arise from early school drop-out in schools where there is insufficient guidance provision. They recommended an option which was the introduction of a standard guidance component in the junior cycle curriculum. Another criticism the authors noted was the view that guidance services on occasion was focused almost exclusively on CAO higher education choices, with little time devoted to Post Leaving Certificate courses, training courses and apprenticeships. In some instances this can be compounded when due to student numbers, a guidance counsellor may have additional subject teaching, as the school does not have the required pupil numbers (above 500) to provide for a full-time guidance position. This can lead to a conflict in roles which requires a non-judgmental role as a guidance counsellor which contrasts with the disciplinarian role often required for subject teaching. Another tension can arise when the guidance counsellor becomes a professional working in isolation rather than as part of a whole school approach to student support. The result can be that students in some schools receive a very different level of support and guidance than students in other schools. Another factor they found was that the success of the service often depended on the goodwill and dedication of the guidance counsellor themselves. Major changes in guidance provision will come into effect from the 2012/13 academic year as due to recent Budget changes. The ex-quota guidance post which heretofore meant the guidance post in a school was calculated outside the normal pupil-teacher ratio, has now been subsumed into the normal provision with the hours allocated to guidance and counseling now

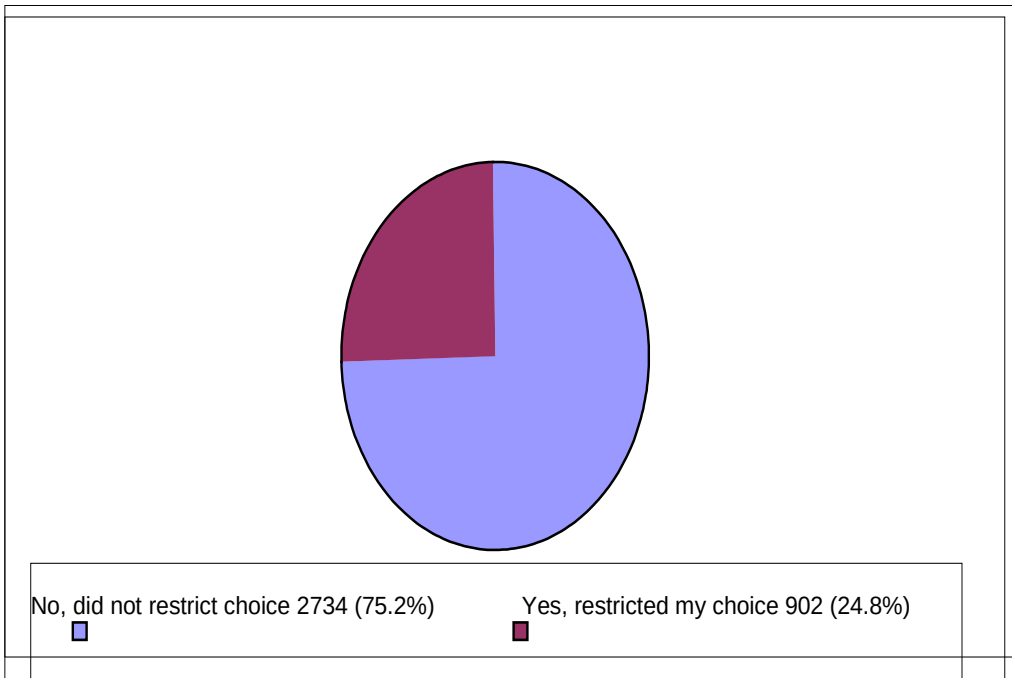
at the discretion of school management as is the case with other subjects. This may have the effect of guidance and counseling hours competing with subject provision in the school curriculum.

Research indicates that the person or persons to whom a student discusses their post schooling plans may differ depending on their individual, family and the school habitus in which they attend. Smyth and Banks (2012) found that less advantaged students in a socio-economic disadvantaged school indicated that the person they valued as most important in their decisions were their mother (75%), father (60%) and friends 40% (guidance counsellor not stated), whereas for students in a middle class fee paying school the equivalent percentages in terms of importance were fathers (34%), mothers (30%), guidance counsellor (17%) with friends being much less at 12%. There was an overarching expectation in the fee-paying school that their students will progress to third level. In summary, whereas for less privileged students it was a question of '*if*' college, for more advantaged students it was a question of '*which*' college.

Effect of cost of living away from home on their decision

Students participating in the survey were asked if the cost of living away from home, which would involve accommodation and maintenance expenses, had influenced their choices in the courses that they applied for.

Figure 3.5 Effect of living away expenses on college choices



It is interesting to note that over three-quarters of students stated that the costs of living away from home did not influence their choices. This may have been assisted by the availability of the maintenance grant system to assist defray the costs of college for lower income families, although only one quarter, as given in the next section, were of the view that they would be eligible for a grant. This reflects applications in January which may change closer to the CAO change of mind date in July 1st when students assess the costs of accommodation away from home with their families and may adjust courses to those they are more adjacent to. Recent reductions in family disposable income may have a greater influence on this decision than heretofore.

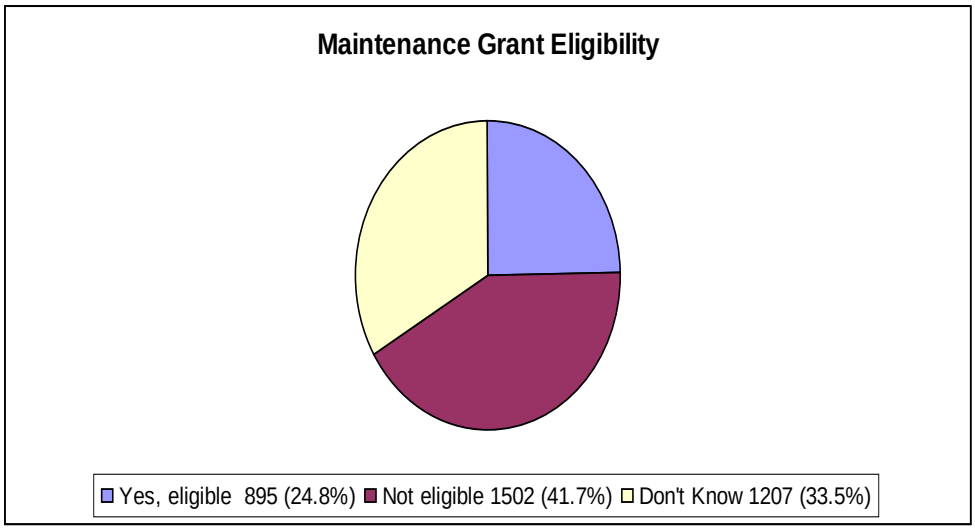
Likelihood of qualifying for a County Council or Vocational Education Committee maintenance grant

A college maintenance grant of approximately €3,000 was available for students with a household income threshold below €38,000 at the time of the survey. As a reference, the average industrial earnings per week in 2005 was €28,994.[23] Grants are distributed through the County Councils or Vocational Education Committees, and are intended to cover the marginal additional cost of college attendance over and above the attendance at a non fee-paying secondary school. Payments by the Irish State for the Higher Education Grants Scheme in 2005 to universities and colleges were €102.7m (2004, €95.3m) while maintenance grants through the Vocational Education Committees to students attending Institutes of Technology amounted to €28.6m (2004, €25.9m)[24]. Grants are paid at 100% (e.g. €3,000), 75%, 50% and 25% with the normal percentages for the share of these being 92%, 3%, 2%, 2% respectively.

[23] Source: Central Statistics Office Ireland, Principal CSO Statistics, Earnings and Labour Costs.

[24] The statutory framework for maintenance grants under the higher education grants scheme is set out in the Local Authorities (Higher Education Grants) Acts 1968 to 1992. Grant allocations from Houses of the Oireachtas, Dáil written answers – Department of Education and Science 25th April, 2006.

Figure 3.6: Likelihood of qualifying for a County Council or Vocational Education Committee maintenance grant



Approximately 40% of students avail of a higher education grant annually. A large number of students (33.5%) were not aware if they would qualify of not. The fact that this is such a high percentage may be explained by students not applying for a grant until July (four months after the survey). There is also a requirement that full financial accounts for farming and self-employed households are assessed to qualify for eligibility. From 2012, a new online only grant application scheme is being introduced by Student Universal Support Ireland (SUSI), a unit of City of Dublin VEC, which replaces all VEC and local authority schemes processed by over sixty different agencies currently. The average monthly costs for a student attending a college are outlined in Appendix A.2., and the grant thresholds are contained in Appendix A.3.

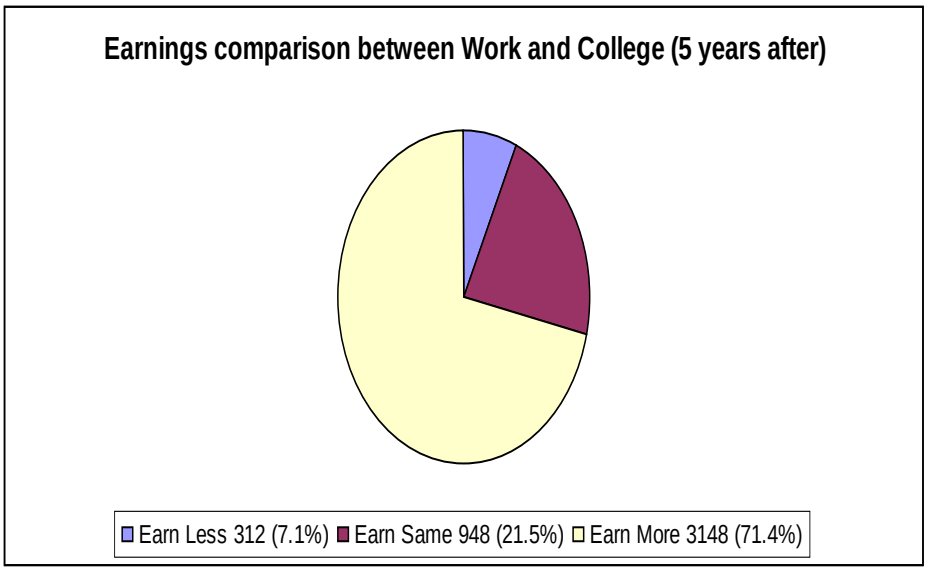
General Questions

Students were asked at the end of the survey to give their opinion on a number of related topics regarding comparisons in earnings as between attending and not attending college. Other questions ascertained the priorities they viewed as important in respect of satisfaction in life. Their views are summarised in the next section.

Anticipated future earnings

Students were asked if someone completes a third level certificate/ordinary degree or honours degree after secondary school, did they think that within five years of completing his/her education and getting a job that he/she would be earning more, the same or less than someone who gets a job straight from school without completing a third level qualification.

Figure 3.7: Earnings comparison between work and college (5 years after)



Seven per cent of students felt that the graduate would be earning less five years after graduation, 21% believed that the graduate would be earning the

same, while 71% believed that the graduate would be earning more, which is a measure of how they value the return there potentially is from completing a third level qualification.

Long term satisfaction in life

Students were asked to indicate in order of importance six characteristics relating to long term life satisfaction. These included money, job satisfaction, job security, qualifications, what other people thought of them and finally their family and friends.

Table 3.31: Very important aspects for long term life satisfaction

	Responses	**%**
Satisfaction with your job	3,785	26
Your family and friends	3,377	23
Security in your job	2,868	20
Money	2,067	14
Qualifications	1,935	13
What other people think of you	612	4
Totals	14,644	100

Job satisfaction (26%) received the highest number of 'Very Important' responses, with family and friends (23%) next. It is perhaps surprising that security in your job (20%) was deemed to be more important than money (14%) as one might expect that school leavers would have a higher preference for financial returns than for job security. Qualifications (13%) were deemed to be almost equal in importance as money, with the aspect of what other people think of the respondent being of little importance, when compared to the others (4%).

3.7 Summary and Conclusions

This descriptive chapter is a summary of responses of a nationally representative sample of over 10% of Irish final year second level students in relation to their individual, family, school and regional attributes. This provides the requisite data for further analysis. It is possible to deduce specific characteristics relating to the average male and female student which is set out in Table 3.32.

Table 3.32: Average characteristics for Male and Female Leaving Certificate students

Characteristic	Male	Female
Age	17.21	17.20
% who took Transition Year	29.9	42.4
% who took 'grinds' for Junior Certificate	20.7	22.7
% who are taking 'grinds' for Leaving Certificate	41.6	48.4
% Part-time work in 5th year	40.3	44.1
% Part-time work in 6th year	32.2	34.6
Expected Leaving Certificate Points (Full sample)	345.23	356.21
Expected Points (DEIS Schools)	311.54	336.70
Expected Points (Fee paying schools)	376.74	379.53
% Take Level 8 offer if offered both Level 8 and Level 7/6	78	84
Expenses in living away from home – restricted choices	25.4	24.3
Subject selection in Leaving Certificate – restricted choices	20.2	18.1

Females have higher expected points, a greater percentage of girls take grinds, complete the Transition Year and engage in part-time work. A higher percentage of girls indicated they would accept their Level 8 honours degree offer from the CAO in the event that they received two offers, yet still almost four out of every five boys indicated the same viewpoint. There is a sixty five point difference between the average boy's expected Leaving Certificate points in a DEIS school compared to a fee paying school which would be the equivalent of an extra subject at Leaving Certificate. This is explored further in the subsequent chapters. A higher percentage of boys than girls stated that the costs of living away from home restricted their choices, and likewise a higher percentage indicated that their subject selection for Leaving Certificate did restrict the choices they could make in their college application.

From the college admissions perspective, it is possible to deduce some important information based on student responses. What emerges from the data is that there is not 'one' single student profile, but rather a range of student types with different aspirations regarding their preferred college and course(s), who are students in different family and school settings and who are influenced in different ways. Some students choose a college first and then within that college review the various courses on offer. Other students choose a discipline first and then select a range of colleges offering that discipline, in preference order. They would not see the additional expense in living away from home to pursue their preferred discipline as prohibitive. There appears to be a contrast between the pragmatic applicant who prioritises career and job opportunities, while others have a passion for a subject or discipline and are

less concerned with the obvious career opportunities which will follow. There is a variation in college knowledge given that some students have the benefit of intergenerational information regarding the college experience. Other students are potentially first generation third level participants with the concurrent fears and anxiety which this may bring without this intergenerational support. Similarly there are differences in the infrastructure available to students in different schools in respect of the guidance support on offer (Mc Coy et al. 2006, Smyth and Banks, 2012).

From the responses it would appear that colleges should be cognisant that students make decisions based on a variety of influences. Very important factors include the experience a student has when they visit the campus on Open Days, when they have an opportunity to meet academic staff and students studying the programme who are enthusiastic about their subject. Comparative research is undertaken using prospectuses and websites when the student has narrowed down the range of colleges, with the student visit to the campus providing an opportunity to learn more than they can find in these source materials. Hossler and Gallagher (1987) describe the process in a three-stage model, a *predisposition phase* where a student first decides whether to attend college, a *search phase* occurs when a student searches for general information about colleges, forms a choice set, and begins to consider several specific colleges. Lastly there is the *choice phase* whereby the student winnows the choice set down to a single college and course and chooses to apply to that college and course.

Students do expect staff from the college whom they meet either at career exhibitions or at school visits to provide information over and above what the student can read in the prospectus or online. Direct advertising would appear to have very little effect from the responses, as in Leaving Certificate the students may be too busy to consume much media. However, given the influence of adults in student decisions it is imperative for colleges to have a strong reputation and profile at national and international level. The survey indicates that mothers especially play an important role in the choices of school leavers, with guidance counsellors, older siblings and fathers having variable influences depending on the student's background which reinforces the need for colleges to have a positive public perception. Smyth and Banks (2012) find mothers having a higher influence in working class schools as compared with fathers who have a higher influence in middle class schools. In some instances student college and course preferences will match the preferences of their parents, and/or other family members and be in accordance with advice from the guidance counsellor following personality testing. However there may be instances where there may be variances in viewpoints leading to a debate about the final CAO preferences chosen. This chapter also considered the reasons why some students do not aspire to go to college. The level of apprenticeship training, and unskilled work in construction, which was a major inducement in the mid 2000s is no longer available to students today. This is part of the reason for the large increase in enrolments in the further education sector in recent years.

In summary, important insights have been drawn which reflect choices regarding such important areas as ‘grinds’, part-time work, Junior Certificate achievement, school and peer effects, as well as parental education and occupation levels. These may influence the points expectations of young people and their decisions in respect of university attendance. These factors may also influence the college or course characteristics which the student will deem as important. Related to this is the person(s) whose opinions a student values in making these key decisions in their educational journey. It is evident that there are variations in the support which students have in their decisions with students from lower classes attending a socio-economic disadvantaged school having access to much less support from family and school networks (Mc Coy et al. 2006, Byrne and Smyth 2010 and Smyth and Banks 2012). Using the data from the survey, models will now be developed to further examine these influences at individual, school, family and regional level in terms of their affects on the intentions and expectations of Irish school leavers.

Chapter 4

Explaining Variation in Irish Students' Perception of their Expected Leaving Certificate Points

4.1 Introduction

This chapter considers individual, family, school and regional characteristics that influence the perception of students as to how many points they will attain in their Irish Leaving Certificate. In the Republic of Ireland, the final school leaving examination determines entry to higher education as well as other post schooling decisions, based on eligibility criteria which are set out by colleges after which there is an allocation of places through a competitive and selective process. The order of merit is established following the conversion of subject grades attained into a points score. A key driver of applicant choice is each student's own expectations of points (or score) on their Leaving Certificate examinations, as students apply to college in advance of knowing their final results. In this chapter, the factors which determine these expectations will be explored, given the central role that the 'points race' plays in the admissions process.

The factors which determine these expectations are of specific interest to higher education institutions given changing school leaver demographics, and the need to have effective marketing strategies. Some of these factors will be common to all pupils in a particular **school**. The type of school, its size, socio-economic and gender composition, quality, as well as school peer effects are all possible influences. Other factors are more specific to the **individual**, such as personal ability and aspiration, based on previous examination performance,

as well as other attributes such as Transition Year[25] participation. This chapter considers the level of private tuition ('grinds') support outside of school in preparation for the Leaving Certificate as well as part-time work hours engaged in by students while at school. A third tier of factors derives from **family** characteristics such as parental education, occupation and household income. Models are set out which capture the relationship between these characteristics and the dependent variable, expected points, which provide a framework to understand individual student decision making. In summary, this chapter examines the forces affecting students' expected points while in second level, which will have a major affect on their decisions for education and/or work after school.

We employ the dataset described in Chapter 2 which was collected specifically for this research from over 100 representative schools in the Republic of Ireland. This contains the college and non-college choices of almost 5,000 Leaving Certificate students, which is a representative sample of the national Leaving Certificate population. Among the results we find large significant differences in the points expected by students based on school socio-economic composition, parental occupation and parental educational levels as well as individual attributes such as gender, previous academic performance, Transition Year and part-time work participation. These differences could have significant implications on whether or not a student applies to university which will be considered in-depth in the next chapter.

[25] Transition Year is an additional academic year mid secondary level which encourages a broader school experience encompassing vocational aspects.

Positive results by sex are found at upper points levels by male students who have an expected 'premium' in terms of the points they anticipate achieving. This situation is reversed among boys at the lower end of the expected points spectrum controlling for other factors. This chapter finds positive effects for both the Transition Year and for private tuition ('grinds'), excluding the upper most band, when other factors are controlled for. Conversely part-time work leads to negative quantified effects on expected points for 6th (final) year students. The chapter also examines family variables such as parental education levels, socio-economic occupation class, as well as peer influences and quantifies their relationship to individual student expectations. Using data for each student's prior academic attainment in their Junior Certificate we find a strong influence emerging which has an affect on the explanatory power of other independent variables when we add prior attainment to the model. There can be a virtuous circle whereby some students have access to positive influences from family, school and peers, can get grinds if needed, take Transition Year and have higher expected points which direct them towards higher education. Conversely other students, with the same ability levels, from lower socio-economic backgrounds are caught in a vicious circle with poor family, school and peer support towards self improvement, as well as the necessity to work part-time on a more time-intensive basis (e.g. Mc Coy and Smyth, 2004). Additionally they cannot afford access to 'grinds', have a lower probability of taking Transition Year due to the cost and availability (Smyth et al. 2004), have lower expected points and therefore lower higher education and life chances. Policy conclusions are then drawn based on the central results which emerge from the empirical analysis conducted in this chapter.

4.2 Central Applications Office (CAO): The Application System for Higher Education Entry

Understanding the decisions of upper secondary school students in regard to their post schooling choices is a complex research question. At policy level, governments are concerned with not only the absolute number of students who progress to higher education but also the share of entrants who would be defined as being from a socio-economic disadvantaged background[26]. At general public interest level, the media at key times of the year inundate the public with information in respect of college choices and college admission/points requirements. Third level institutions invest significant resources, in financial and human terms, in understanding students' decision making processes and creating marketing strategies to attract increased student applications in quantity and quality (one measure for which might be higher points).

In the Republic of Ireland, a major determinant of choice by students is the expected level of points, or score, they will get in their final school leaving examinations (Leaving Certificate). Colleges specify minimum academic entry standards as well as subject requirements, at either Ordinary or Higher Level, for each educational programme and applicants who meet these criteria are then placed in order of merit, with places offered on a competitive basis. In the application process, students create a rank order of their college choices as they apply to a common application system for higher education. Students have ten options on an Honours Degree list, and another ten options on an

[26] National Plan for Access to Higher Education 2008-2013. National Office of Equity of Access to Higher Education, Higher Education Authority, Dublin, Ireland. July 2008

Ordinary Degree/Higher Certificate list, giving twenty choices in all. The Honours Degrees are generally at least of three years full-time duration, often four years with a small number longer in duration than this. Higher Certificates are normally of two year's full-time duration, with an Ordinary Degree adding one more year to this either as an add-on or three year *ab initio* programme. This system is administered by the Central Applications Office (CAO), a body which operates on behalf of most higher education institutions in the country (both universities and colleges). The deadline for applications is February 1st annually. Thus, these choices are made dependent on the students' perception of their final points, which are not actually known until August when it is, for some, too late. The maximum points which a student can attain is 600 points, which is scored from their best six subjects with an allocation of points for each grade achieved (full table of grades and points is given in Chapter 1, Table 1.3)[27]. College places are allocated on the basis of points in point order. In the event of more applicants having equal points than places remaining on a programme, the final selection of applicants to receive an offer is made by random selection. While technically the minimum points threshold for admission to most higher education institutions to study for an Honours Degree programme is 140 points, i.e. two grade C3's or better at Honours Level and four grade D3's or better at Higher or Ordinary Level. This may be inclusive of a pass grade in specific subjects such as English and for some universities Irish, Mathematics or another Language, in reality students are required to have at least six honours (Grade C3 or better) in Honours Level

[27] From admission in 2012, on a four year pilot basis, students may attain an extra 25 points if they have achieved a grade D3 or better in Higher Level mathematics as a way of promoting the study of Higher Level mathematics in second-level.

subjects for admission to a university or a College of Education, with lower grades required for admission to an Institute of Technology.

The CAO system is a competitive process. To demonstrate this, in 2005, there were 63,716 applicants to the CAO with only 38,175 college places available, which was a ratio of 1.67 applicants for every place. The entry points required for admission in 2005 were similar to those which pertained in 2004.[28] The comparative figures for 2011 were 71,465 applications for 45,804 places constituting a ratio of 1.56 applications for each place which was a minor improvement in the place per applicant ratio. There is a contrast in the allocation mechanism from applications to offers between the Irish and the UK system which is discussed in the next section.

Higher Education Place Allocation Methods

Represented below in Figures 4.1 and 4.2 are contrasting college place allocation models. In Figure 4.1, the Irish case, the admission requirements are determined after the release of Irish Leaving Certificate results. Students' grades are converted to point values, which are then ranked, and the requisite points for admission arise after the colleges determine the number of places in each programme of study (quota). As can be seen there is a quantity of places, $\bar{q}$, and this sets the requisite point level for admission to the course, p*.

[28] Estimating the correlation in required points levels for college course admission in 2004 and 2005, for the 497 courses in the CAO application system which were offered in both years, we find a .963 level of Pearson correlation at significance levels below 0.01. Overall individual application levels to the CAO in 2004 were 56,880 for Level 8 courses compared with 56,452 in 2005, with college offers (acceptances) for both years being 38,801 (25,275) in 2004 and 38,031 (24,980) for 2005. While it appears that there is a large surplus of offers above the places accepted, this is due to the process by which there are a number of offers in each round, many of which are to applicants who have accepted previous offers and who may or may not accept their most recent one.

This can be contrasted with Figure 4.2, which represents the process for UK universities whereby applicants receive a conditional offer subject to grades achieved in advance of their GCE A level examination results, $\bar{g}$, which then determine the number of applicants who receive an offer.

Figure 4.1 Allocation of Higher Education Places – Irish Leaving Certificate Points

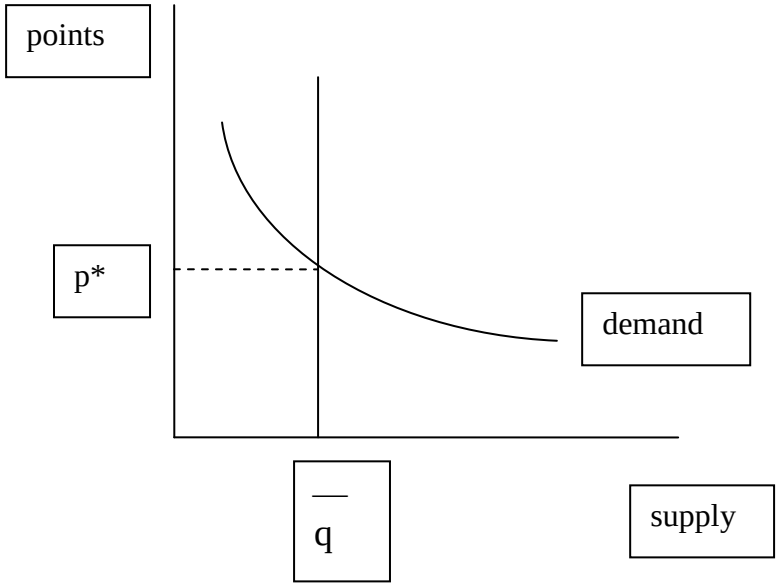
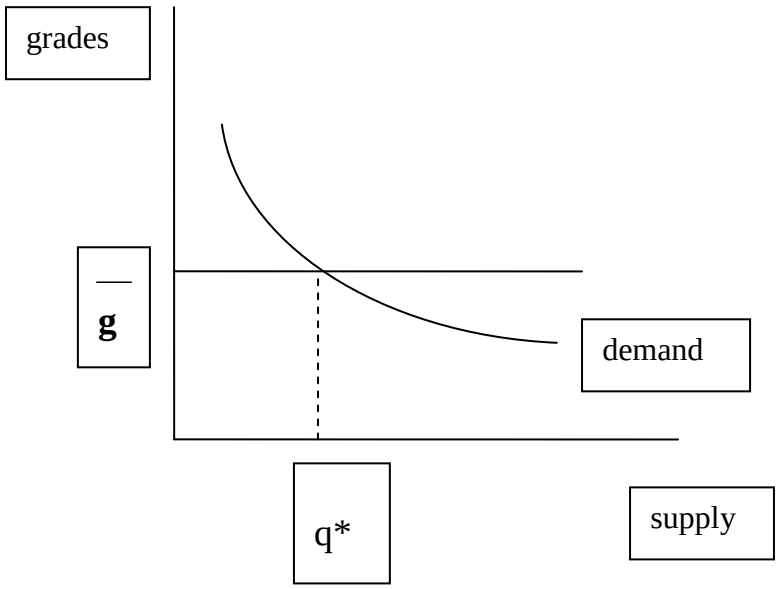


Figure 4.2 Allocation of Higher Education Places – UK GCE 'A Levels'.



4.3 Literature Review

There is a chain of events which start with student expectations' of their likely performance in their Irish Leaving Certificate examinations, which influences the choice of colleges and courses to which they make application to by February annually. Each August following the release of examination results, colleges convert student performance to points and then set the minimum points for entry to each course. This is a dynamic process as the points determined one year can have an influence on the applications the following year which in turn can influence points, as student expectations and applications are related to estimated points for admission. Of initial interest then is what do we know about student academic expectations generally and

then specifically how expected points are influenced by individual, family, school and regional level factors. These points expectations form the dependent variable in this chapter and we can review international literature relating to student expectations of academic performance and then consider each of the above factors in turn to ascertain their association with points expectations. Some questions we would wish to consider are, for example, are there differences between students from different social backgrounds in how they perceive they will perform if we test against students from varying social backgrounds but with similar levels of prior academic achievement. Importantly, do expectations vary according to social class and parental education levels which may explain some of the variation in participation levels in higher education? Are there perhaps differences by gender in respect of perceptions of expected results? What roles do Transition Year, 'grinds' and part-time work have in shaping expectations?

There is little evidence of work on quantifying Leaving Certificate expectations for the Irish case; yet some work has been undertaken in other countries. Given this, there still are inconsistencies in the research regarding students' ability to predict their academic results. For instance, the correlation between academic self-perception and the decision to attend (apply to) university by individuals, is examined by Chevalier et al. (2009), using the England and Wales component of the 2003 PISA (Programme for International Student Assessment) survey in mathematics. The survey includes school and student attributes, family background, as well as students' educational ambitions in relation to attendance at university. Among high

school pupils they find that students with a more positive view of their academic abilities are more likely to continue to higher education, even after controlling for observable measures of ability and student characteristics. One finding though is that '*Students are poor at predicting their own performance in absolute and relative terms*' (p.28) although they do not state is this the case for all students or simply a subset of students. They do have a separate study of first year university students where they find that '*working class students underestimate numeracy performance relative to upper class students, and women underestimate relative to men in literacy and numeracy*' (p.28). Also in the UK, Sullivan (2006) finds that boys significantly overestimate themselves compared to girls both in predicting their GCSE results and in evaluating their general academic abilities. The author also finds that students from salaried families significantly overestimate their general academic abilities and their GCSE scores compared to students from lower social class categories. Additionally, students whose parents have degrees overestimate their GCSE performance significantly compared to students whose parents are not graduates.

In research centred on the literacy and numeracy of new undergraduate students in a UK university, Thorpe et al. (2007), find a False Uniqueness Effect (FUE) whereby students from working class backgrounds estimate that the average score for students starting on their degree to be significantly higher for students from upper class backgrounds. This is the case even though ability (as reflected in A-level points scores) was distributed equally across all class groupings. The size of the coefficients for each of the groups 'middle

class', 'lower middle class' and 'working class' suggesting (particularly in the numeracy test) a steady decrease in expectations as one progresses down through the socio-economic groups. In short, their perception of a lower ability level is false.

Individual Effects

A question arises as to whether we can associate student participation in Transition Year with higher or lower expected points in the Leaving Certificate. We know generally from research by Smyth, Byrne and Hannon (2004) in which students from middle-class backgrounds, with higher educational aspirations and who are younger than average are more likely to take part in Transition Year[29]. It may be possible to quantify a Transition Year effect in student expectations controlling for other factors. Jeffers (2007) finds that it assists mid-adolescents attain greater maturity, improves the quality of student-teacher relationships and the general school climate, yet there is a need for schools to provide clear communication with parents about the goals and format of Transition Year for it to be effective. Jeffers argues that Transition Year should be optional in all schools – if it is the case that some schools do not offer Transition Year, and we find that it does have a positive effect on expectations, then we may deduce that students attending such schools suffer an inherent disadvantage due to the lack of opportunity to participate in Transition Year. Recently Jeffers (2011) has stated '*With only half of the*

[29] Smyth, Byrne and Hannan (2004) find that Transition Year participants are 1.3 times more likely to enter higher education and almost twice as likely to enter degree courses as non-participants. However, this is found to be due to the Leaving Certificate grade advantage secured by participants as the impact of Transition Year participation becomes non-significant when Leaving Certificate grades are taken into account (p.202).

relevant cohort taking part in TY programmes, issues of systematic injustice also arise as an unintended consequence of the innovation' (p.71) .

At an intuitive level one would expect private tuition outside of school to increase the points expectations for all students. The research evidence does not unambiguously support this. For example, taking account of private tuition, Smyth et al. (2007, 2008, 2009) consider the extent to which what are commonly called 'grinds' or 'shadow education' impact on academic outcomes. Other research by Smyth et al. (2011) in a post-primary longitudinal study which followed a cohort of students through second level found that almost 50% of students took private tuition outside of school, a pattern which they found was sharply differentiated by social background. Other research has also shown that there is a disproportionate amount of students from middle-class families, and who have performed academically well previously as well as being very engaged in the schooling process, are most likely to pay for private tuition. One example is research by Ireson and Rushfort (2005), in a UK study, who find that '*children's opportunity …to participate in shadow education relates strongly to their socio-economic and cultural background*' (p.11). Similarly, Bray and Kwok (2003) find it in the Hong Kong case and outline similarities in countries as diverse as Canada, India, Egypt, Malta, Romania and Taiwan. In summary, however, Smyth (2009) finds that in the Irish case '*All else being equal, taking grinds does not yield a net advantage in terms of grades for upper secondary students*' (p. 18). She argues that the percentage of time which students spend taking shadow education is small relative to the time they are in school or in the family setting over the whole of

their educational career and so these have a much greater impact. If this is the case one might ask why do so many students take private tuition, and why are there large advertisements regularly in Irish daily newspapers promoting grinds as a route to academic success? It may be the case that parents are not aware of these results; but as Smyth (2009) deduces it may also be that there is a complex interchange whereby parental expectations, along with the fact that the students participating in grinds generally attend schools with a higher proportion going on to higher education gives rise to such a phenomenon, in addition to possible peer pressure. We must distinguish at this point that this conclusion relates to academic outcomes which may be different from the influence private tuition could have on the student expectations which we examine in this chapter as this research considers the responses of students while in their final year.

Another individual attribute which may affect points expectations is part-time paid work outside of school for which there are different schools of thought; on the one hand some argue that there is a positive socialisation aspect from which a person develops from engaging in part-time. On the other hand, others see part-time work from a zero-sum model perspective such that it consumes available time for education and other activities and thus may have negative effects. In relation to student expectations the direction of this effect could be positive due to encouraging students to achieve better results having an insight into the world of work and thus making study time more productive (e.g Oettinger (1999). However, it may have a detrimental influence on their expectations, due to a loss of available time to their education (e.g. March

(1991) who found there was a negative linear function between number of hours worked and educational aspiration, academic self-concept and progression to college). It may not be a simple relationship, for instance Singh (1998) finds that there are differences in that students with low ability levels tend to engage in higher hours of part-time work, while students from the higher academic ability scale tend to work less part-time hours. From a socio-economic perspective, Mc Vicar and Mc Kee (2001) find in a Northern Ireland study, that students from more affluent homes are more involved in part-time work to which they attribute the family contacts which their parents can leverage for them. However, they do find that working more than 15 hours per week does affect examination performance. In Ireland there are two studies of note, Morgan (2000) who studied the working behaviour of students in 16 Dublin schools, half of which were socio-economically disadvantaged, and found that the greatest number of hours worked was by students in disadvantaged areas. The author also found that part-time work was a feature for 80% of students, with 15% working more than 20 hours per week, and the general motivation for students was not the economic necessity to work but rather a wish for independence. Mc Coy and Smyth (2004) have considered the prevalence of students who engage in part-time work, based on a range of datasets, and found that those who were working intensive hours outside of school were less likely to come from economically advantaged homes. Relevant to this study they find that *'At Leaving Cert level, any level of involvement in paid work contributes to lower exam grades, with the greatest disadvantages accruing to those working longer hours. This is evident*

regardless of young people's long term aspirations or their involvement in social activities outside school.'(p.106).

In forming their expectation, a primary reference for individual students is their performance in the Junior Certificate Examination which they undertake after three years of second-level education. Their subject results in this examination often influence the subject choices made for senior cycle. Elwood and Carlisle (2003) examined the Irish Junior and Leaving Certificate examinations in 2000 and 2001, and conclude that more boys than girls enter for subjects at the Foundation and Ordinary Level when compared to girls (at Junior Certificate). It is equal for boys and girls at Foundation and Ordinary Level at Leaving Certificate, with more girls entered for Higher Level examinations than boys at both Junior and Leaving Certificate, which followed patterns in other education systems and other countries. In summary, they find that girls leave school better qualified than boys.

In relation to gender and expectations, of interest is whether boys or girls have more positive views about their academic level relative to others, taking account of other factors. Hannan et al. (1996) and Smyth (1999) find that girls tend to have lower academic self-images than boys, which persist even when prior ability, performance and family background are taken into account. Another related finding is the fact that pupils from middle-class backgrounds and those whose mothers have higher levels of education tend to have more positive views of their own abilities. From a college admission perspective, Shulruf et al. (2008) considered students in New Zealand and found that boys

were less likely than girls to gain the requisite university matriculation entry standards, yet boys were more likely than girls to apply to university.

Family Characteristics

A further set of possible influences relate to family characteristics. Chevalier et al. (2009), Connor et al. (2001) and James (2002), consider the effect of parental socio-economic occupation on students' perceptions of progression to higher education and their chances of success. They also consider the educational attainment of students' parents, which may be important given that parents may have a large influence on the post schooling decisions made by school leavers. Students from lower social class backgrounds are reviewed by Connor et al. (2001), in a UK study, and they find that such students take account of a wider range of issues than their counterparts in higher social class groups when taking the decision to enter higher education. They tend to place more emphasis on the expected beneficial outcomes of higher education than do students from higher social class groups. Even though qualified to get a place, the two primary reasons for non-participation by students from lower social class backgrounds were a wish to become independent at an early age by earning money and starting employment in an area that did not require a degree qualification (39%), and a concern about the cost of studying (28%). Another key finding was that, on the whole, students from lower social class groups appeared to have lower levels of confidence about their ability to succeed in higher education and in taking career decisions than did those from higher social class groups. Related to this is the contention of Goldthorpe (1996) who considers the level of ambition of students from lower class

families. He contends that they have a further relative journey to travel regarding advancement in educational attainment compared to the students of middle class families who have a shorter journey, such that similar levels of ambition can arrive students at different points along the educational continuum. It may be that this difference from starting points has a consequential effect on academic results at the end of the senior cycle. For example, based on their own calculations from the 2004 School Leavers' Survey, Byrne and Smyth (2010) estimate that on average there is a difference of 1.2 grade points per subject in the Leaving Certificate examination (out of a maximum of 10 grade points) between students from higher professional backgrounds and those from working class backgrounds.

The intergenerational transmission of education is investigated by Chevalier et al. (2005) with an emphasis on early school leaving in the UK after GCSE's (at age 16), taking account of variations in permanent income, parental education levels and shocks in income at that age. They consider both endogenous and exogenous variation (using policy changes such as increases in the minimum school leaving age and trade union membership by the father), using Labour Force Survey and National Child Development Study datasets. Using least squares estimation they find maternal education having stronger effects than paternal, with stronger effects on sons than daughters. Extending this and using instrumental variables methods to simultaneously account for the endogeneity of parental education and paternal income, they find that the strong effects of parental education become insignificant while permanent income matters much more, with the effects of shocks to household income at

16 being significant in respect to early school leaving at that age, as opposed to continuing in education. In another paper, Chevalier (2004) exploits the discontinuity through changes in the minimum school leaving age to identify the exogenous effect of parental education on their children's education. Chevalier finds that each extra year of education at the parental generation increases the probability on after post compulsory education by 4 percentage points when the exogeneity of education is assumed but by up to 8% when this assumption is relaxed. He does not find significant differences in the influence of father's or mother's schooling on their children's educational achievement, with only the same-sex parent having a significant effect on the schooling of the child. Of interest is the finding that including a measure of paternal wage does not significantly influence the effect of parental education, so the effect is directly causal rather than via income. From a Rational Action Theory perspective (discussed in Chapter 1), Dynarski (2001) focuses on the credit constraint aspect of college admission through household income. She finds that the choices of students will be affected by the cost of attending college such as fees, student contribution charges, accommodation, books and other costs of higher education participation which may be of a higher amount compared to costs of higher education in Ireland. Considering students from lower socio-economic means she concludes that each additional $1,000 increases the probability of attending college by such student recipients by four percentage points. Finally, a strong parental influence on the decision making of young people was also found in recent work on the parental role in education by Byrne and Smyth (2011).

School Characteristics

It may be the case that the characteristics of the school to which a student attends could have an influence on their Leaving Certificate expectations and more precisely, the socio-economic composition of the students who attend that school could also have an association. For instance, Smyth and Hannan (2007) contend that '*There is a good deal of active selection of schools on the part of students and their parents in the Irish context … This selection process coupled with residential segregation patterns, means that secondary schools vary significantly in their social class mix.*'(p.182). Hannan et al. (1996) also observe that '*Single sex schools tend to be more selective in their intake than coed schools. This results in a very different social and ability profile of pupils in the two school types.*' (p.196). The socio-economic composition may be derived by taking the average of the parental socio-economic classifications of the students in each school. Smyth (1999) concludes that '*Much of the difference between second-level schools in pupil outcomes (both academic and non-academic) is, in fact, differences in the intake of pupils to the school.*' (p.218). While acknowledging this, Smyth (1999) does accept that second-level schools do matter but the impact is not consistent across all ability levels and each gender, so some schools may have differential successes, from an academic and/or social development perspective, depending on the group of students one is considering. She finds a correlation at Junior Certificate level for boys in coeducational schools who have lower academic self-image when compared with other single sex schools. Of relevance to this study is the identification that teachers in more effective schools were seen to have higher expectations of their pupils along with more positive perceptions of pupils and

parents. This is reinforced in another paper (Smyth and Hannan 2007) which concludes that certain schools historically can have a stronger orientation in terms of progression to third level, above and beyond the effects of family background and prior ability. They cite two contributing factors in this as students having more time to select their upper secondary subjects and also an emphasis on career guidance. Smyth, Banks and Calvert (2011) find in their longitudinal study of students in second-level, in a range of case study schools, that students in working class schools achieved lower grades in mixed or middle class schools even taking account of reading and maths performance on entry to first year. They also point to the negative downstream effects which can occur through streaming, whereby students are allocated to 'higher' and 'lower' ability classes for all of their junior cycle subjects, which resulted in significantly lower Leaving Certificate grades for students in lower stream classes, yet this was without any corresponding achievement gain for those in the higher stream classes. At the subject level, in relation to mathematics, Lyons et al. (2003) emphasise the importance of the expectations, beliefs and attitudes of the teachers in the school as having a substantial influence on educational achievement. In recent work, Smyth and Banks (2012) see schools as working in conjunction with the family and individual habitus as well as a young person's agency (which is the conscious process whereby they seek out information on different options and evaluate the alternatives) to chart their progress after school. Based on in-depth interviews with students, guidance counsellors and principals they find important differences as between a middle class fee paying school and a socio-economic disadvantaged school, in which the school settings have very different approaches regarding the

encouragement of students in their school to progress to higher education. The more advantaged students have access to more formal guidance hours and are encouraged to visit college open days to broaden their options, while the less advantaged students receive less formal guidance, are advised to moderate their aspirations and if they attend open days this is perceived by some teachers as being almost a substitute for truancy.

Researchers in other countries have also considered the role of schools. Taking three cities in Sweden, Brännström (2008) considers upper secondary school and neighbourhood effects, net of observed individual-level background attributes and finds that upper secondary schools account for much more of the achievement variability than do neighbourhoods. The proportion of the variation that is attributed to schools is more than seven times greater than that of neighbourhood alone effects. Some research has focussed on increasing participation by students in higher education from schools with traditionally low levels of engagement. For instance, in Texas, Domina (2007) studied higher education participation by students graduating from high schools, with particular reference to schools with traditionally low university application rates and found positive effects on university application rates based on a combination of new scholarship programmes being available for disadvantaged schools. In particular, he cites that the communication of clear and consistent postsecondary admissions and financial aid standards helped to equalise information inequalities between high schools which then boosted college-going behaviour at disadvantaged schools. This was an unexpected positive consequence following the Hopwood vs. University of Texas case

which banned affirmative action and encouraged more University promotional activity at the High School level, but the author does express concerns about the at-risk students who do not attain marks within the top percentiles and do not attract a standard scholarship. One side effect of the change in the law was the initiation of a set of programs by public universities in Texas (Longhorn and Century scholarships) which did not offer concessions on entry standards but rather were financially based such that recipients paid a relatively small tuition fee and this along with high school visits by university personnel broadened the intake so as to be more inclusive. There may be variability in school performance across subjects, for example, also in the US, a sample of private schools were examined by Kim and Placier (2004), consisting of 72 Catholic and 72 non-Catholic schools, and they find that students in Catholic schools scored lower in reading than students at non-Catholic private schools, but find no significant differences in the development of maths, history/social studies and science abilities from eighth to tenth grades.

An important dimension is school composition, and this is evidenced in work by Konstantopoulos (2006) who, using three major national US surveys conducted in the early 1970s, 1980s and 1990s, analyses information about student achievement, student background and school characteristics. He finds that school socio-economic status, school region, and characteristics of the student body in the school (e.g. percentage progressing to third level, daily attendance, numbers taking advanced college preparatory classes) had a considerable effect on student achievement, net of the effects of individual student background.

Within the school context, there may also be a peer influence among classmates. Hanushek et al. (2003) consider peer effects, and find that peer achievement has a positive effect on achievement growth. Students throughout the school test score distribution appear to uniformly benefit from having higher achieving schoolmates. Related to this are the findings of Lazear (2001) and Figlio (2005) that a student who is disruptive or takes up teacher time in ways that are not useful to other students affect not only his/her own learning but that of others in the class also. Smyth (1999) considers school principals' reports about student behaviour and finds a negative association between student academic self-image and disruptive pupil behaviour in schools. In a study of Irish national assessments in reading and mathematics at primary level, as well as Junior Certificate results in English and mathematics, Sofroniou, Archer and Weir (2004) demonstrate that there can be a negative social effect when there are high concentrations of disadvantage in a school whereby the achievement scores for all the students are reduced over and above what one would expect for individuals on average when compared to schools with less concentrations of disadvantage.

In many studies the aspects of school factors and student background are considered together as in the Australian case, where Win and Miller (2004) examine the factors that influence university students' academic performance focusing on the role of student background and school factors for students admitted to the University of Western Australia in 2001. They examine the relationship of entry scores (Equivalent National Tertiary Entrance Rank or ENTER scores), similar to CAO points, with first year performance at

University. Three school types are considered – Catholic, Government and Independent. They find results similar to Marks, Mc Millan and Hillman (2001) using data from the Longitudinal Surveys of Australian Youth (LSAY) that Independent Schools have higher tertiary entrance scores than Catholic Schools which in turn have higher scores than students attending Government schools. This is the case after controlling for prior achievement and the socio-economic background of students. From the regional perspective, another finding was that non-metropolitan students' tertiary entrance performance was marginally lower than that of metropolitan students. Overall, the school-level factors which contributed to lifting tertiary entrance performance were a higher level of confidence among students in their own ability, a school environment more conducive to learning and higher parental aspirations for the students' education, after controlling for the academic and socio-economic mix of students across schools and school sector. They find a number of school variables that affect the level of academic performance at university such as attending a rural school rather than an urban school having a negative impact on university performance, and that students who attended a small school have a higher university achievement in first year than those who attended large schools. Finally, Win and Miller (2001) find that co-educational schools have a positive effect on students' achievement at university compared to all-boys schools and all-girls schools, which they contrast with other work which finds that overall second level school performance is higher in single sex schools controlling for other factors.

Regional Characteristics

It may be that regional factors could have an influence on student expectations and progression to higher education. However research had tended to include other factors in addition to region and often find that the other factors 'crowd out' the effects of region. For instance, rural and city differences are studied by James (2001) for Australian higher education participation, as well as socio-economic circumstances yet he finds that socio-economic effects are generally more pronounced and pervasive than any effects of location. James' later study (2002) involving further work on Australian senior secondary school students reveals appreciable social stratification in their opinions about the relevance and attainability of a university education. Though the overall attitudes of young people towards secondary school are similar in many ways, their aspirations and intentions regarding higher education are strongly influenced by socio-economic background, gender, and geographical location. He finds that the major factor in the variation in student perspectives on the value and attainability of higher education is socio-economic background and not location. Comparing parental education levels, parental occupation and home postcode with aspiration to attend university, he finds that parental education levels are most closely associated with students' aspirations than the other influences. For the Irish case, Kellaghan and Fontes (1980) consider participation rates in the university sector by gender and by county, with census and university registration data, and find distance more important for males than females. There is a difference in the independent distance variable which they use from this research in that they take the distance from the county town to the university, whereas we consider the distance from the

individual school to the nearest university. The study also takes account of the profile of school provision by county and it contrasts the percentage enrolment of students, by county, in vocational schools as compared with secondary, comprehensive and community schools. The study also considered the employment profile by county contrasting agricultural and non-agricultural employment opportunities. As in the case of Brännstrom's Swedish study (1988) above, it is clear that location has an effect but this is smaller in magnitude than the school and parental influences.

4.4 Description of Variables and Modelling Strategy

Modelling Strategy

To ascertain the points students expected to attain in their Leaving Certificate examinations, which is the dependent variable, students were asked as part of the survey on which this chapter is based, to indicate their expected points in their examinations within indicative ranges e.g. 200-295, 300-395, 400-495, 500-600. The approach taken is to use *gologit2* which is a programme that estimates generalised ordered logit models for ordinal dependent variables (Williams, 2007). A major strength of *gologit2* is that it can estimate models that are less restrictive than the parallel lines models estimated by *ologit*, yet it is more parsimonious and interpretable by those which are estimated by a non-ordinal method such as multinomial logistic regression (i.e. *mlogit*). The general model may be specified as:

$$\begin{aligned} \mathrm{PS}_{\mathrm{it}} &= \beta_0 + \beta_1 SSES_{jt} + \beta_2 ST_{it} + \beta_3 DS_{it} + \beta_4 D_{it} + \beta_5 P_{it} \\ &+ \beta_6 PSES_{it} + \beta_7 PE_{it} + \beta_8 TY_{it} + \beta_9 GR_{it} + \\ &\beta_{10} Ptw_{it} + \beta_{11} Sex_{it} + \beta_{12} SPC_{it} + \beta_{13} JC_{it} + \vartheta_{it} \quad (1) \end{aligned}$$

where the dependent variable, PS_{it}, is the Leaving Certificate points expectation of student *i*, in the school cluster *t*, with independent variables, $SSES_{jt}$ being the school's average socio-economic status, and ST_{it}, being a voluntary secondary school as compared with the other school types, comprehensive, vocational and community attended by student *i*. Also included is DS_{it} where the coefficient measures the effect on student *i* if they are attending a socio-economic disadvantaged school (in the DEIS scheme), and SS_{it} denoting the size of the school in terms of pupil numbers. The model also considers the effect of distance with D_{it} being a distance measure from the school to its nearest university, which was calculated using geo-coding methodology, and P_{it} taking account of the province which the school is based in – Leinster is considered in the model against other provinces. We consider two aspects relating to parental characteristics namely parental socio-economic status being the average for mother and father, $PSES_{it}$, and another component which is level of parental education, specifically third-level, PE_{it} to measure the influence of parental social class and parental education on expected points. The ISCO-88 classification is used under the International Standard Classification of Occupations approach e.g. code 1 are 'Legislators, senior officials and managers', code 2 are 'Professionals' up through other codes to for example code 9 reflecting 'Elementary Occupations'. The groups are detailed further in Chapter 2.

A Transition Year variable, TY_{it} , is binary which equals 1 if the student did Transition Year and 0 if not. Gr_{it} is also a binary variable with the coefficient measuring the effect of taking private tuition ('grinds'). The model also

estimates part-time work (Ptw_{it}) and sex (Sex_{it}) effects using dummy variables. A peer effect, SPC_{it}, is included being students' expectations of the percentage of students in their class who will proceed to college, with students expecting seventy five percent or more of their class mates to go to college being compared to others in the model. The average number of subjects in the Leaving Certificate is seven and the best six are scored, and the comparative case for Junior Certificate is that on average ten subjects are taken, and we therefore have taken their best nine subject scores for the analysis in this chapter, with JC_{it}, being the Junior Certificate score of student *i* based on his/her best nine subjects. The overall Junior Certificate scores are broken into quartiles for analysis with finally ϑ_{i_t} being an error term. The variables and their definitions are summarised in Table 4.1.

Table 4.1: Explanation of the variables in the Models

Variable	Explanation
PS_{it}	Leaving Certificate Points expectation of student i
$SSES_{jt}$	School Average Parental Socio-economic Status which student i attends
ST_{it}	School Type which student i is attending
DS_{it}	Deis School attendance
D_{it}	Distance in kms from School to its nearest University
P_{it}	Province in which the school is located
$PSES_{it}$	Average Parental SES for student i
PE_{it}	Father and Mother's Educational Attainment
TY_{it}	Transition Year participation of student i
Gr_{it}	Grinds participation by student i
Ptw_{it}	Part-time work by student i
Sex_{it}	Sex of student i
SPC_{it}	Student's perception of percentage of peers going to college
JC_{it}	Junior Certificate score of student i
ϑ_{i_t}	Error term

The Tables below consider the relationship between expected points and other variables, using a generalised ordered logit approach, with clustering by school. Respondents were asked 'How many points do you realistically think you will get in the Leaving Certificate in June'. Responses were coded as 1=0-195 points, 2=200-295 points, 3=300-395 points, 4=400-495 points and, lastly, 5=500-600 points. When the dependent variable has more than two categories as above, the gologit2 model becomes equivalent to a series of binary logistic regression models where categories of the dependent variables are combined. Thus in the models presented below the reference group refers to the actual category of the expected points level as well as the lower-coded categories. Students taking the Leaving Certificate Applied programme were removed from the analysis on the basis that they do not present Leaving Certificate points *per se*. The straightforward ordinal regression model is not used due to the assumption of parallel lines being violated, thus with gologit2 we can model while relaxing the proportional odds assumption and it allows the effects of the explanatory variables to vary with the point at which the categories of the dependent variable are dichotimised.

4.5 Findings

The findings are presented according to each 'block' of variables that were entered. Table 4.2a presents the results of the model with school and regional characteristics.

Table 4.2a: Ordinal regression model of Expected Points: School and Region Model

	J=1 0-195 vs. 200+	J=2 0-295 vs 300+	J=3 0-395 vs. 400+	J=4 0-495 vs. 500+
School SES	0.493***	0.537***	0.615***	0.696***
	(0.133)	(0.0982)	(0.0915)	(0.131)
Secondary School	0.432*	0.440***	0.344***	0.315*
	(0.172)	(0.114)	(0.0995)	(0.145)
DEIS	-0.0654	-0.133	-0.188	-0.392*
	(0.187)	(0.120)	(0.101)	(0.162)
Distance	0.360	0.171	0.0815	-0.229
	(0.197)	(0.154)	(0.149)	(0.253)
Leinster	-0.192	-0.288*	-0.305**	-0.288
	(0.174)	(0.116)	(0.107)	(0.181)
Constant	4.049***	2.754***	1.462***	-0.230
	(0.507)	(0.383)	(0.349)	(0.505)
Adjusted R^2	0.0380			
Chi	122.44***			
N students	4827			
N schools	105			
P	0.000			

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

It is clear that the average school socio-economic intake (SES) has a significant relationship with expected points of students across all categories of the dependent variable. We find that the coefficient is positive and significant and becomes progressively larger as we compare students against the higher point expectation groups. In terms of school type, students attending voluntary secondary are more likely to expect higher points than those attending community/comprehensive schools but we find that the significance level and coefficient falls as we compare students against the higher point expectations groups. Students attending schools with higher socio-economic

student intakes are more likely to predict higher points than lower points, but we do not find an additional DEIS school effect when we control for the socio-economic intake for the school. A separate regression undertaken without school SES in the model shows significance levels across all categories of the dependent variable indicating that the DEIS effect is subsumed to a large degree in the school SES variable. Minimum distance to the nearest university does not have an association with point expectations, but we do find significance for Leinster schools indicating a negative coefficient for students in the middle band of expectations which may arise from the large concentration of socio-economically disadvantaged schools in the greater Dublin region. The following Table indicates the changed results when we add parental education and parental occupation to the model.

Table 4.2b: Ordinal Regression Model of Expected Points: School, Regional and Parental model

	J=1 0-195 vs. 200+	J=2 0-295 vs 300+	J=3 0-395 vs. 400+	J=4 0-495 vs. 500+
School SES	0.406**	0.443***	0.518***	0.521***
	(0.129)	(0.0876)	(0.0702)	(0.111)
Secondary School	0.401*	0.404***	0.292**	0.249
	(0.167)	(0.109)	(0.0914)	(0.137)
DEIS	0.00408	-0.0460	-0.0718	-0.223
	(0.186)	(0.114)	(0.0985)	(0.165)
Distance	0.305	0.110	0.0190	-0.310
	(0.193)	(0.150)	(0.145)	(0.235)
Leinster School	-0.179	-0.293**	-0.331***	-0.331*
	(0.170)	(0.110)	(0.0968)	(0.159)
Parental SES	0.222***	0.223***	0.279***	0.458***
	(0.0570)	(0.0398)	(0.0387)	(0.113)
Father 3rd Level	0.394*	0.684***	0.619***	0.501***
	(0.199)	(0.120)	(0.0851)	(0.130)
Mother 3rd Level	0.561**	0.548***	0.486***	0.720***
	(0.209)	(0.0871)	(0.0777)	(0.127)
Constant	4.067***	2.690***	1.430***	-0.405
	(0.508)	(0.330)	(0.272)	(0.379)
Adjusted R^2	0.0688			
Chi	761.18***			
N students	4827			
N schools	105			
P	0.000			

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

In Table 4.2b parental occupation and educational levels are introduced. It is clear that parental factors have an influence with parental education showing a larger coefficient than parental occupation. Students whose parents have

higher levels of education, and students from higher socio-economic households are more likely to hold higher point expectations. The inclusion of these variables has increased the effect of attendance at a secondary school when comparing all students to those who expect to achieve the highest points. A greater degree of the variation is explained with the adjusted R^2 for the model increasing to 0.0688.

The Table below, Table 4.2c, includes the addition of individual attributes such as gender and school experience variables (Transition Year, Grinds, part-time work and a peer influence).

Table 4.2c: Ordinal Regression model of Expected Points: School, Regional, Parental and Individual Characteristics (excluding Junior Certificate results)

	J=1 0-195 vs. 200+	J=2 0-295 vs 300+	J=3 0-395 vs. 400+	J=4 0-495 vs. 500+
School SES	0.346**	0.392***	0.449***	0.429***
	(0.117)	(0.0689)	(0.0521)	(0.1000)
Secondary School	0.255	0.261*	0.196*	0.312*
	(0.176)	(0.102)	(0.0912)	(0.143)
DEIS	-0.117	-0.165	-0.115	-0.123
	(0.201)	(0.119)	(0.100)	(0.178)
Distance	0.338	0.174	0.126	-0.0617
	(0.182)	(0.129)	(0.149)	(0.223)
Leinster	-0.170	-0.278**	-0.293**	-0.275
	(0.174)	(0.103)	(0.0939)	(0.145)
Parental SES	0.164**	0.165***	0.233***	0.429***
	(0.0538)	(0.0352)	(0.0356)	(0.113)
Father 3rd Level	0.341	0.636***	0.547***	0.420**
	(0.197)	(0.121)	(0.0890)	(0.128)
Mother 3rd Level	0.507*	0.508***	0.455***	0.694***
	(0.221)	(0.0961)	(0.0790)	(0.129)
Transition Year	0.373*	0.495***	0.476***	0.602***
	(0.166)	(0.104)	(0.0894)	(0.141)
Grinds	0.733***	0.714***	0.522***	0.0774
	(0.142)	(0.0936)	(0.0876)	(0.140)
Part-time Work	-0.433***	-0.566***	-0.713***	-0.631***
	(0.111)	(0.0767)	(0.0902)	(0.159)
Male	-0.433**	-0.434***	-0.197*	0.298*
	(0.152)	(0.0942)	(0.0935)	(0.150)
Peer	0.206	0.220*	0.174*	-0.0641
	(0.174)	(0.0951)	(0.0864)	(0.122)
Constant	3.782***	2.366***	0.918***	-1.212*
	(0.473)	(0.302)	(0.259)	(0.513)
Adjusted R^2	0.0985			
Chi	2029.36***			
N students	4827			
N schools	105			
P	0.000			

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

In Table 4.2c, of note is the significance which pertains for both School average SES and parental SES across each of the four comparison breaks in points levels, with School SES showing higher coefficient levels, yet parental SES having an increasing effect when moving up between the points bands. Parental educational attainment to third level is significant, with the coefficient for mothers' education being larger than fathers' education, across each of the categories. Attendance at a secondary school still holds significance at all but the lower comparison expectations levels. The lack of effect may be due to the fact that the numbers of students from Secondary Schools in the lower points category may be relatively small, as found in Hannan et al.'s research (1996) where there were better academic results in Voluntary Secondary schools as compared with other school types. Students who participated in Transition Year are more likely to expect higher points than students who did not. This finding is interesting in the context of recent budget discussions (December 2011) in which the discontinuation of Transition Year was considered as one option, amongst a set of others, in requisite expenditure saving measures considered by the Irish Government.

Students who take private tuition or 'grinds' are more likely to expect higher points but grinds do not appear to have the same effect at the upper end. This would at first sight appear to be counter intuitive as one would expect grinds to have the most effect at the upper band yet it accords with work by Smyth (2008, 2009) who did not find a large positive effect from grinds and was of the view that the amount of time during the year in school itself probably outweighs the effect of private tuition. Her work looked at actual results

whereas in this model we examine expected points before students receive their Leaving Certificate results. Student engagement with part-time work in the final school year does show a negative effect on expected points across all categories. Mc Coy and Smyth (2004, 2007) consider the effects of part-time work and conclude that while it may have some merit in the transition process to the world of work, there are negative effects on school performance which can lead to higher early school leaving rates in the case of some students who have attendance difficulties and then disengage from the school environment (Byrne and Smyth (2010)).

Results in Table 4.2c indicate that males are more likely to expect to achieve higher points than females, in line with previous research which finds that boys have higher levels of self-concept (Hannan, 1996). Of interest is the peer effect. That is, students that have expected that over 75 per cent of their class mates would go on to college are more likely to have higher point expectations. This is evident only in the middle range of points which may indicate that for students in this middle range that they may benefit from having peers who expect to go to college, and may raise their own expectations. A greater degree of the variation is explained with the adjusted R^2 for the model increasing to 0.0985, with the inclusion of these additional explanatory variables. Results for the final model which includes Junior Certificate points are tabulated below.

Table 4.2d: Ordinal Regression Model of Expected Points: School, Regional and Individual Characteristics (including Junior Certificate results).

	J=1 0-195 vs. 200+	J=2 0-295 vs 300+	J=3 0-395 vs. 400+	J=4 0-495 vs. 500+
School SES	0.168	0.224***	0.298***	0.256*
	(0.106)	(0.0641)	(0.0784)	(0.118)
Secondary School	0.103	0.0986	0.0593	0.140
	(0.168)	(0.107)	(0.121)	(0.151)
DEIS	-0.0623	-0.147	-0.118	-0.121
	(0.202)	(0.128)	(0.140)	(0.183)
Distance	0.120	-0.110	-0.119	-0.260
	(0.184)	(0.117)	(0.170)	(0.241)
Leinster School	0.0580	-0.0544	-0.0298	-0.0491
	(0.177)	(0.107)	(0.115)	(0.163)
Parental SES	0.0623	0.0380	0.117**	0.233*
	(0.0545)	(0.0364)	(0.0406)	(0.112)
Father 3rd Level	0.0758	0.449***	0.388***	0.258
	(0.205)	(0.128)	(0.0979)	(0.142)
Mother 3rd Level	0.311	0.367**	0.315***	0.546***
	(0.228)	(0.127)	(0.0914)	(0.147)
Transition Year	0.296	0.526***	0.518***	0.564***
	(0.159)	(0.104)	(0.108)	(0.166)
Grinds	0.590***	0.668***	0.501***	-0.00467
	(0.139)	(0.0982)	(0.0889)	(0.131)
Part-time Work	-0.288**	-0.435***	-0.539***	-0.360*
	(0.108)	(0.0820)	(0.0889)	(0.169)
Male	-0.192	-0.200	0.186	0.675***
	(0.154)	(0.104)	(0.108)	(0.170)
Peer	0.0538	0.0841	0.124	-0.0957
	(0.173)	(0.102)	(0.103)	(0.132)
Upper quartile JC	5.459***	5.998***	4.561***	3.079***
	(1.014)	(0.502)	(0.207)	(0.390)
2nd Upper quartile	3.554***	3.316***	2.666***	0.896*
	(0.368)	(0.127)	(0.214)	(0.440)
2nd Lower quartile	1.672***	1.563***	1.207***	-0.627
	(0.189)	(0.108)	(0.213)	(0.590)
JC results missing	0.491**	0.911***	1.781***	1.316**
	(0.189)	(0.125)	(0.220)	(0.502)
Constant	1.773***	-0.122	-2.326***	-3.883***
	(0.469)	(0.313)	(0.381)	(0.671)
Adjusted R^2	0.2656			
Chi	8094.77***			
N students	4827			
N schools	105			
P	0.000			

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Introducing a measure for prior achievement, namely students' Junior Certificate results, has a dramatic effect on the model. Variables which previously had a positive or negative relationship to point expectations are diminished when we control for prior results. In saying this, we must still acknowledge that there are a range of key variables which hold even after the inclusion of the academic measure. School composition in terms of the average parental SES of the student intake in each school still holds, as does parental SES, parental education and in particular mother's education. School and regional variables are 'crowded-out' and lose significance when we add the prior academic attainment variable.

The individual characteristic variables retain their explanatory power and we see that mothers' educational attainment to third level has an important influence on student point expectations. An interesting dichotomy emerges as between Transition Year participation and private tuition ('grinds') in that we find that Transition Year has high levels of positive significance for students in the middle to upper bands while the effect of 'grinds' is found in the lower to middle bands and falls when we consider the top band compared to all others. Research by Smyth, Byrne and Hannan (2004) who examined the range of schools who offer a Transition Year programme found that small schools and schools where the average ability levels of students was in the lower ranges were less like to offer Transition Year and this may match with findings in this research were students in the lower expected points bands do not appear to have benefited from Transition Year.

Conversely to this is the evidence from the Table that there is a positive 'grinds' effect for lower and middle bands yet when we compare the bottom four bands against the top band we do not find a significant relationship as between 'grinds' and expected points. One would have to draw a distinction between 'grinds schools' where students are full-time students, often repeating their Leaving Certificate, which is not part of this study, and the additional private tuition after school which does form part of this study. The number of students who take private tuition is high as we find that 48 per cent of students in the sample had or were undertaking grinds in their final year in secondary school. Issues of endogeneity and self-selection bias can arise in relation to 'grinds' as it could be the case that the more highly motivated or higher family income students take 'grinds'. Grinds are taken outside school hours (evenings/weekends) which potentially can take from available leisure time and require students to make a higher commitment to their study plans. Given that the average cost of extra tuition can be as high as €500 per subject in schools which specialise in this area, it is prohibitive for low income families. The pattern for part-time work is negative and robust across all the expected attainment levels. It is worth noting that the survey was completed during the height of the 'Celtic Tiger' when part-time work opportunities were plentiful.

The research does find interesting gender effects in that, controlling for prior academic attainment, there are positive effects for boys as against girls at the higher ranges of expected points. The structure of the model does allow the advantage of being able to ascertain the influence across the range of expected points levels so as to differentiate the influence. The influence of peer effects

fall when we introduce the prior ability variable. Comparing the coefficients, it is evident that there is a strong positive relationship as between student performance in the Junior Certificate and their stated expected points in the Leaving Certificate which is taking place two or three years later. The variation between two or three years depends on whether the student participated in Transition Year. The coefficients on expected points get smaller as one moves up through the bands of Junior Certificate achievement with other factors playing an influence for higher points students. The greatest degree of the variation is explained by this model with the adjusted R^2 for the model increasing dramatically to 0.2656 from 0.09 indicating the strength of the prior academic measure in determining points expectations for the Leaving Certificate[30].

4.6 Summary and Conclusions

Given the public resources that are committed to higher education institutions, it is understandable that there is a public policy desire to create the conditions such that there is a fair distribution of college places across all members of society. Given also the benefits that derive from a higher education qualification, it is important to understand the processes that are involved in

[30] Separate analysis was undertaken to examine the relationship between age and transition year on points expectations. Specifically it considered whether higher points expectations which arise from students who have taken transition year is due to the transition year or is it more simply that they were a year older. For this test, repeating students were excluded as well as students who were over 19 years of age to compare both sets of students. Age for each student was calculated taking their age on February 1st, which was the deadline for application to the Central Applications Office. The new sample size was 4,900 (from a full sample size of 5,174). The relationship between expected points and age is significant with 11.351 additional points for each additional year of age when controlling for Junior Certificate performance. However, when one adds transition year to the analysis, both coefficient on and significance of age falls which allows the conclusion that the transition year effects are much stronger than the age effects to be drawn. To test for robustness, a regression in which students who took the transition year were excluded and age in months was regressed on points expectations. Age again was not found to be a significant explanation for expected points attainment.

the post schooling decision of whether and if so, where to apply to college. This chapter has considered many of the factors which determine one of the key determinants of the post schooling decision which is the points expectations of students. This has a particular relevance in the Irish case, as second level students apply for their after school choices before they actually know their level of attainment in their final school leaving examinations.

Four dimensions have been examined in detail with relevant models presented namely individual, family, school and regional characteristics. A model consisting of school characteristics is presented initially, encompassing school compositional attributes based on the average of parental socio-economic occupation classification in the school. This also includes school distance and regional measures which consider effects based on the minimum distance individual schools are from their nearest university as well as the province the schools are located in. A further extension to this model is the inclusion of individual characteristics such as parental education and occupations, and then a model to capture participation in Transition Year, whether or not the student avails of private tuition (or 'grinds') and if they engage in part-time work during their last year in second-level education, as well as gender and peer influences. A final component which is added separately is the addition of the prior academic attainment variable which is their performance in the Junior Certificate Examination which has a dramatic impact as compared to the results in prior models when this academic attainment variable is excluded and by including the prior academic variable it does add additional explanatory power well above the previous models.

Together they underpin the factors which provide us with an important insight in to the post schooling decision making process. In the school domain, attendance at a voluntary secondary school is associated with higher points expectations for students in the middle and upper ranges of points as compared to other school types, all else being equal. More importantly we find a close relationship as between the composition of a school in terms of the average socio-economic status of the parents (SES) and the expected points levels of the students in that school. The earlier model derived significance levels for DEIS schools, indicating that students attending a DEIS school were less likely to expect higher points, yet this falls away when parental education and parental SES measures are included.

Controlling for other factors, we do not find evidence of a robust relationship between minimum distance to a school's nearest university or province as having an influence on expected points. Leinster is the province which is included in the model but an examination of Ulster, Munster and Connaught yield similar patterns. O'Connell, Mc Coy and Clancy (2006) went further to analyse the rate of participation by students in the Republic of Ireland in Northern Irish colleges, and Britain, and found that when Northern Ireland colleges were included it would increase the 2004/2005 admission rate to higher education from 55% to 56% with the counties which had the highest migration being Donegal (14%), Monaghan (13.1%), Louth (3.1%), Cavan (1.9%), Sligo (1.9%) and Leitrim (1.2%). Including British colleges in the analysis would increase the participation rate by a further 4% to 60% in total.

We will return to the distance and province question when we consider the type of colleges that students make application to in the next chapter.

While regional attributes are marked with low levels of proven influence the converse is the case when one considers individual attributes such as Transition Year, private tuition, engagement in part-time work as well as parental SES and their influence on expected points. Each of these are significantly associated with point expectations. At a national level, the pedagogic value of Transition Year remains controversial, with one option considered by Government in the run up to a recent budget being its discontinuation as a cost saving measure yet we do find it having a positive influence on expected points for those students who participated in it. Less so is the case for peer effects which did not exert an influence on point expectations. However, all else being equal, in the case of gender we find that boys tend to have higher expectations than girls. Finally as one would expect we do find a strong positive relationship between Junior Certificate achievement and expected Leaving Certificate points as both sets of examinations are led and managed by the State Examinations Commission and the methodologies of assessment are broadly similar with higher levels of knowledge expected in the case of the Leaving Certificate.

Given these demonstrated results, it is clear that the current policy direction by the Irish Government and the higher education institutions to provide incentives for college admission for students from socio-economic disadvantaged backgrounds, with one of the possible criteria being DEIS

school attendance. The rationale is that in these schools there are higher concentrations of disadvantage, but normal supports are inadequate to meet the targets set out. The incentives are aimed at the lower socio-economic occupation classes and again this chapter finds evidence of significant variation in points expectations based on school and parental occupational class. This will have an influence on college aspirations and allied to this are the differences in expectations deriving from parental educational levels, similar to other research e.g. James (2002). For parents this is ever more important given that the cost of college is increasing with higher student contribution charges placing an increased financial burden on households. Current estimates of costs for each year at third level amounting to €10,000 inclusive of accommodation costs with increases in the student contribution charge expected each year for the foreseeable future. The current college contribution charge for households which are not in receipt of a grant is €2,250 (2012/13 academic year). There is a need to cultivate greater encouragement by parents in taking an interest in their son or daughter's progression to higher education so that they acquire the benefits of a college education. One possible approach is for schools to promote CAO parents' evenings and invite college personnel to attend to discuss the opportunities which a college education can impart. While these are often well attended it may be the case sometimes that the parents who would benefit most from such an evening are those that are not in attendance. It requires a combined approach by school management, teachers and college personnel working closely with parents and students to achieve an improved and successful outcome over time.

Given the influence on student expected points which we find in this chapter from both the average level of school composition and parental SES which in turn have a direct influence on college and course choices of students, one could argue that these should be the key determinant in relation to the HEAR scheme. The HEAR (Higher Education Access Route) scheme is run by a number of higher education institutions, with support from the Irish Government, to promote access to college for students from socio-economic disadvantaged backgrounds. Given that attendance at a DEIS school is one of the possible criteria for eligibility under the HEAR scheme, this research would suggest that there should be analysis undertaken to ensure that DEIS schools do satisfy the criteria of lower average school composition and parental occupation in terms of SES which contribute to lower student aspirations. It is likely to be the case also that students attending DEIS schools do not attain the benefits demonstrated in this chapter from having classroom peers who have higher college aspirations (Hanushek et al. 2003), a school tradition of high participation rates to college or high levels of parental encouragement. These factors could be evaluated given the additional weight which is accorded to DEIS school attendance in the HEAR scheme. Indeed the converse may be true as Sofroniou et al. (2004) demonstrated whereby individuals in schools with high concentrations of disadvantage attain lower achievement scores over and above what one would expect on average for an individual due to a negative social context effect. In saying this it should be said that there is also a need for robust checks to ensure that students who are deemed eligible for HEAR supports (concessions on points required for

admission purposes as well as post entry financial and other supports) do satisfy the necessary eligibility criteria of under-represented status.

This research provides a platform for further work as it provides a basis of knowledge relating to expected points levels, and gives an insight into whether a student will apply to college or not, based on their expected level of points attainment. In the Irish context expected points have a higher importance as students apply to university and college before they know their actual school leaving results. It provides an in-depth analysis of the individual, family, school and regional characteristics which may affect that decision. Further work can now be considered to better understand the characteristics which determine whether or not students will apply for admission to university which is considered in the next chapter.

Chapter 5

Individual, Family, School and Regional determinants of university applications by school leavers in the Republic of Ireland

5.1 Introduction

This chapter leads on from the previous chapter, which considered student expectations of points, to now examine the actual college application which students made in the survey. In this chapter individual, family, school and regional factors on the decision to apply to university are considered. The chapter reviews the national and international literature in respect of the college application decision before setting out a proposed model to explain the association of these factors to the decision which students make. Specifically each student's CAO first preference choice on their Level 8 list is considered, with particular reference to those students who applied for a university, and subsequently this is extended to consider both universities and the Dublin Institute of Technology together. These factors are of specific interest to higher education institutions given changing school leaver demographics and the need to plan for changed levels of tertiary level enrolment.

Some of the factors which impinge on university applications may be common to all pupils in a particular school. The type of school, its social composition, size, gender, province and distance to the nearest university are all possible influences. Other factors are more individual student specific such as personal ability and aspiration, whether or not they availed of Transition Year, are engaging in part-time work, are paying for private grinds, as well as gender may have an impact on whether or not to apply to university. Another

influence may derive from their family background as parental educational attainment levels and socio-economic class may impinge on their university application.

Among the results significant differences in respect of university applications between students in schools with different social compositions are evident. The greater the distance to the nearest university, students are less likely to apply to university. These results hold when Dublin Institute of Technology is included in the analysis as a university given the large number of first preference applications it attracts. In terms of school related variables, attendance at a secondary school results in a higher likelihood of applying to university over other school types when we account for school and family variables. The school type effect diminishes when we extend the model to include individual level variables. Males are less likely to apply to university than females, taking account of school, family, distance and individual variables such as Transition Year participation, grinds and part-time work. However, it falls away when we control for the prior academic attainment influence and include Junior Certificate results. A positive relationship is evident between Transition Year and grinds with university application when all variables are considered, yet the reverse for this occurs when we consider the influence of part-time work which is associated with a reduction in the likelihood of university application. Parental socio-economic class also indicates a positive relationship as well as father's higher educational attainment. The results together suggest that there is a greater need to address the low application rates from students in schools which have a lower social mix in their composition, one avenue for which may be through the HEAR

(Higher Education Access Route) scheme which is co-ordinated by the universities and other participating higher education institutions. A recent study of the demand for higher education places estimates that the numbers entering colleges in the Republic of Ireland will increase from 42,831 in 2009 to 64,918 in 2025[31]. Thus, it is important that in increasing the provision of places that there is cognisance taken to ensure there is a more equitable distribution of the places than heretofore. Policy conclusions are then drawn based on the central results which emerge from the empirical analysis conducted in this chapter.

5.2 Overview and Context

In the Republic of Ireland significant public attention is devoted to the transition between second level and third level education. The intensity of this attention increases at particular times during the year; in January when Central Applications Office (CAO) applications for college entry are submitted; in August following the release of Leaving Certificate results when college offers are made; and again in November following the release of tables by the media identifying the number of students from each school who progressed to higher education institutions in the Republic of Ireland. Much of the attention and comment is an attempt to understand the college choices made by Irish school leavers, giving advice about possible careers, on how the CAO application process works and also to alert students and parents about the transition issues which can arise in making the transition between second-level and third-level. There are also listings of the entry requirements for each course which

[31] 'National Strategy for Higher Education to 2030' January 2011. Report of the Strategy Group - Published by the Department of Education and Skills. Estimates for admissions for the years 2015, 2025 and 2030 are 49,549, 64,918 and 64,164 respectively.

pertained in the previous year giving applicants and parents a guideline as to the points required for admission in that year.

Applying to college marks the start of a transition process for students as they move on from second level. For students progressing to third level, it can involve a range of challenges such as larger class sizes, a varying academic timetable compared to the rigidity of the schedule of a typical school day, less monitoring of attendance, a lack of parental influence and for many a move away from home with the increased costs which this entails. Perhaps the largest challenge is the change in learning style and the expectation that they become independent learners. These changes can lead to some students having difficulty making the transition. As Crabtree et al. (2007) state in relation to difficulties which arise can include '*the importance of social and academic integration, the mismatch between student expectations and experiences, lack of appropriate study skills and the importance of student support.*' (p.339). Another aspect is the view that students transitioning from second-level may be unaware that independent learning is a requirement for success in higher education they often lack the skills necessary for effective independent study (Entwistle, 2005). However, one of the dangers in this transition phase is the acquisition by students simply of the knowledge of the assessment criteria and other processes which may result in increased instrumentalism, with the resulting difficulties which can emerge whereby the achievement of the assessment outcomes can become a substitute for real learning (Torrance et al. 2005). Evidence of this instrumentalism is also a feature in Irish second-level schools as discussed by Smyth et al. (2011), which was discussed in greater

detail in Chapter 1. This has led to criticism of senior cycle as students have a preference for teachers to simply 'teach to the test' and prepare them for what is potentially on the examination rather than developing wider critical thinking skills amongst students. The authors found this impatience particularly among middle class and high achieving students who were focussed on attaining the necessary points for university entry.

There are a number of individual, family, school and regional factors which are likely to determine an applicant's decision regarding progression to university. In the previous chapter we assessed how these influenced the expected Leaving Certificate points of students. An obvious factor is whether the applicant has a realistic expectation of attaining the required academic score in their final school level examinations. Other factors which may be considered are the educational and socio-economic occupation of the applicant's parents. For some families the cost of college can be seen as prohibitive, even allowing for the fact that there are no tuition fees currently *per se* in the Republic of Ireland contrary to the situation in many other countries[32]. State maintenance support for college, to cover such aspects as books, accommodation and other college related costs is available in the Republic of Ireland, and the level of this may have an influence on college choice. Maintenance grant support is generally available for students in a household earning €50,000 or less in the previous calendar year (with other criteria for dependents of self-employed and farming households), which also covers the student contribution charge. It is likely that the cost of college

[32] A student contribution charge does exist in the Republic of Ireland – for the academic year 2012/2013 this is €2,250.

increases with distance from the student's home as there are higher transport costs incurred the further a student travels or there is the need to obtain accommodation near the college. If the college is not within daily commuting distance, then students get the higher level of maintenance grant. Conversely students in Ireland living within 45km from the college they are attending get a lower 'adjacent' level of financial support which is 50% of the full maintenance support. The factors which influence an applicant in relation to whether or not he/she will apply to university, and if so, which university he/she will apply to, are varied and complex. Some of these are common to all pupils in a given school. An initial analysis regarding university choice however, can be made taking account of school level factors such as school composition, type and school distance to nearest university. To this we extend the analysis to include individual and family influences to ascertain how all the influences, at individual, family, school and region impact on the decision to apply to university.

It is important to understand the school level characteristics and their role in the continuum of overall education provision. A key factor in the decision by parents to send their son or daughter to a particular second level school is the progression rate from that school to higher education institutions. Also relevant is the social class composition of the school, and the particular universities and colleges to which students from that school attain progression to given the results from the school. Aggregate numbers showing the progression by students from each second level to each Irish third level institution is made publicly available by the media in November annually

which receives much attention reflecting the wider public interest in how these channels work.

The State has made a provision to spend €2.984bn on second level schools this year[33], of which approximately 75% is on salaries. While the emphasis is rightly in giving students a broad education for life, one objective is to provide students with the necessary academic and career guidance so that they attain the required knowledge and skills to progress to third level or elsewhere. It is important to understand the differences which are features of the school types at second level in the Republic of Ireland. Some schools are fee paying, while others have higher proportions of socio-economic disadvantaged students than the average and thus receive additional State support. There are many factors which will motivate parents to send their children to either a single sex or a co-educational school, and likewise, a denominational or non-denominational school. One aspect of interest is the proportions from different school categories who apply for admission to university. This is one of the research questions, among others, which this chapter addresses.

Section 5.3 of this chapter reviews the literature on university application based on individual, family, school and regional level variables. Section 5.4 specifies the explanatory models as well as a description of the data while Section 5.5 provides an analysis of the results from the models. Section 5.6 provides a summary of findings and conclusions and discusses policy implications.

[33] 'Revised Estimates for Public Services 2011'. Department of Finance, Republic of Ireland (Prn. A11/0269).

5.3 Literature Review

There is a substantial amount of international and national research which considers individual, family, school and regional affects on higher education participation but less so that considers the application decision. In saying this, there is established research on who participates in college and university. Mc Coy et al (2010) find in their study that there are clear socio-economic disparities at play in terms of application, acceptance and participation in higher education in Ireland. From their models, using odds ratio, they conclude that students whose parents have a degree level qualification are four times more likely to participate in higher education than those who do not. Students attending non-DEIS schools are more likely to participate in higher education than those attending DEIS schools, while girls are 1.2 times more likely to participate than boys in higher education. In particular, comparing other social groups to students from unskilled manual backgrounds in respect to participating, those from professional groups as well as farming and employer/manager households were more than twice more likely to participate. Furthermore, they found that those young people from 'other non-manual backgrounds' had a lower likelihood of participating than the skilled, semi-skilled and unskilled manual group.

In other studies (see Byrne, Mc Coy and Watson 2008), in the School Leavers Report for 2007, persistence is found in terms of social differentiation in progression to third level education and the authors conclude that while eight out of ten from professional backgrounds continue their education, just 45 per cent of those from manual backgrounds and unemployed similarly progress.

They also found strong parental education influences in evidence, as while those whose mothers had attained a degree course had an eighty five per cent likelihood of participation, it was only forty one per cent for those whose mothers had left school prior to the Junior Certificate (or equivalent). More broadly, Smyth and Hannan (2007) find that the background characteristics of students (social class, prior ability, gender) as well as the institutional habitus of the school assist in explaining the variation in levels of application to higher education by school. They find that even with equal academic performance levels young people from middle class backgrounds are much more likely to apply for college than students from working class backgrounds. Smyth and Hannan also find that at the school level certain schools have a stronger orientation historically to higher education and that this impacts on student aspirations above and beyond the effects of family background and prior ability, with school processes in relation to allowing students more time for subject choice and guidance services at a high level assisting in this process towards higher education progression. Internationally, Reay et al. (2005) in the UK case, and Mc Donough (1997) in the US case, draw similar conclusions emphasising the importance of a school effect, also termed institutional habitus, which they state *'is an intervening variable, providing a semi-autonomous means by which class, raced and gendered processes are played out in the lives of students and their higher education choices'* (p.35). Mc Donough (1997) researches the choices of students in different school types, public and private, in California and considers how the individual, family and school processes come together with linkages between high schools and colleges helping to define and mediate individuals' achievements and

aspirations (as Smyth and Banks, 2012 find in the Irish case). Mc Donough deduces that there is the concept of 'entitlement' whereby students have a cultural capital derived from family, school and social background which means that students then organise their college searches around what they then perceive is a range of acceptable institutions.

A number of international studies have also found effects of the type of school attended. Based on three cities in Sweden, Brännström (2008) considers upper secondary school and neighbourhood effects, net of observed individual-level background attributes. His study focuses on particular neighbourhoods which experienced deepening residential segregation along ethnic and socio-economic lines. The findings are that upper secondary schools account for much more of the achievement variability than do neighbourhoods as the proportion of the variation that is attributed to schools is more than seven times greater that that of neighbourhoods alone.

Considering higher education participation by students, a study by Domina (2007) reviews students graduating from Texas high schools, with particular reference to schools with traditionally low university application rates. He finds that when new scholarship programmes become available for disadvantaged schools, university applications rise. In particular, he cites that the communication of clear and consistent postsecondary admissions and financial aid standards helped to equalise information inequalities between high schools, which boosted college-going behaviour from disadvantaged schools.

Also in the US, Konstantopoulos (2006) uses three major national surveys conducted in the early 1970s, 1980s and 1990s that provided information about student achievement, student background and school characteristics. He examines the between-school variation in achievement and the importance of school characteristics in predicting student achievement and explaining variation in achievement over time. His findings are that school socio-economic status, school region, and characteristics of the student body in the school (e.g. percentage progressing to third level, daily attendance, numbers taking advanced college preparatory classes) are important predictors of average student achievement, net of the effects of individual student background.

Similar work has been undertaken by Win and Miller (2004) who examine the factors that influence university students' academic performance focusing on the role of student background and school factors for students admitted to the University of Western Australia in 2001. Three school types are considered – Catholic, Government and Independent – and they find results akin to Marks, Mc Millan and Hillman (2001) that Independent Schools have higher tertiary entrance scores than Catholic Schools which in turn have higher scores than students attending Government schools, after controlling for prior achievement and socio-economic backgrounds of students. Another finding was that non-metropolitan students' tertiary entrance performance was marginally lower than that of metropolitan students. Overall, the school-level factors which contributed to lifting tertiary entrance performance were a higher level of confidence among students in their own ability, a school environment more

conducive to learning and higher parental aspirations for the student's education, after accounting for the academic and socio-economic mix of students across schools and school sector.

Another school factor which may influence choice is school size. Within the representative sample of schools chosen in this study, the schools range in size from the smallest at 23 to the largest with 1027 pupils. School size does matter in relation to the provision of career guidance personnel in a school. Guidance is provided by Guidance Counsellors who are qualified teachers with specialist postgraduate training in this area. All second level schools up to the 2011/12 academic year had an ex-quota allocation in respect of guidance which assisted students to make choices and transitions in the personal/social, educational and career areas. Schools with fewer than 100 students received a guidance allocation of 0.1 teaching post, rising to 0.5 for schools between 250 and 499, one full-time post between 500 and 799 pupils, with schools above 1,000 having an allocation of two full-time guidance personnel. The Minister for Education and Skills made a policy change as part of the overall Budget provisions for 2012 which removed the ex-quota provision for guidance and counselling with effect from the 2012/13 academic year.

Distance Effects

In Australia, James (2001, 2002) considers higher education participation in the context of both rural and isolated areas as well as socio-economic circumstances and finds that socio-economic effects are generally more pronounced and pervasive than any effects of location. Similar to this study he

focuses on the goals and plans of senior cycle students and their attitudes towards higher education participation and finds distance effects smaller in magnitude to socio-economic effects.

For the Irish case, Kellaghan and Fontes (1980) consider participation rates in the university sector by gender and by county, with census and university registration data, and find distance more important for males than females. There is a difference in the independent distance variable which they use from this research in that they take the distance from the county town to the university, whereas we consider school to university distance, using geo-coding. Analysing third level college application data, Gormley and Murphy (2006) recognise a strong geographic effect on Irish college applications. They also consider the aspect whereby the Irish college application process may create artificial demand for high profile courses. However, their study was not sufficient to analyse this fully. One of their recommendations was to consider further distance effects from schools to universities which this work addresses.

One of the objectives of this chapter is to determine the influence of distance on university application by final year second-level students in the Republic of Ireland. By including distance, it may be that it is a proxy for cost of college as the distance from college will determine whether or not a student will be required to move away from home and incur all the additional accommodation and maintenance costs which this entails. Each school and university was geo-coded as part of this research and the distance between each school and its nearest university was calculated in kilometres.

Peer Effects

The pattern of university attendance by previous cohorts from the school that the applicant is attending as well as the application profile of their current school peers could exert an influence on university application. Some of this may derive from knowledge and social networks. Social networks may be built up over a period from previous cohorts of students as well as older siblings from a school who subsequently attended particular colleges/courses. These students then create a knowledge profile of the college which is channelled back to their previous school and which may influence the decisions of subsequent cohorts from that school. Thus, peer effects may play a role in application rates to college which Hanushek et al. (2003) consider taking account of peer effects on student achievement, and find that peer average achievement has a positive effect on the achievement growth of students throughout the school test score distribution. Thus, all students appear to benefit from proximity to higher achieving schoolmates. There may be both positive and negative effects with on the one hand, peers assisting in the learning process in the classroom through the use of questions and answers yet learning may be hindered through disruptive behaviour. Lazear (2001) and Figlio (2005) find that a student who is disruptive or takes up teacher time in ways that are not useful to other students affects not only his/her own learning but that of others in the class. Sofroniou, Archer and Weir (2004) demonstrate that there can be a negative social effect when there are high concentrations of disadvantage in a school whereby the achievement scores for all the students are reduced over and above what one would expect for individuals on average,

which implies an adverse peer effect, when compared to schools with less concentrations of disadvantage.

At the individual level, there may also be a gender effect, where for example, in a study by Shulruf et al. (2008) which considers students in New Zealand, they find that boys were less likely than girls to gain the requisite university matriculation entry standards, yet boys were more likely than girls to apply to university.

5.4 Empirical Models and Data Description

As was discussed in Chapters 2 and 3, the research in this chapter is based on a unique survey of 5,174 students in 105 representative schools in the Republic of Ireland and is representative of the national population of school leavers in the survey year. The analysis of the data is based on comprehensive questionnaire returns completed by over 10% of students in their final school year nationally.

The analysis in this chapter considers the factors related to a university application, which derives from students indicating whether or not they chose a Level 8 Honours degree course in a university as their first preference on their CAO form, which is our main dependent variable.

The variables in the model comprise both quantitative variables (e.g. distance) and qualitative factors (e.g. school type, province). So the model is:

$$Y_{it} = \beta_0 + \beta_1 SSES_{jt} + \beta_2 ST_{it} + \beta_3 DS_{it} + \beta_4 Size_{it} + \beta_5 D_{jt} + \beta_6 P_{jt}$$
$$+ \beta_7 \mathrm{Re}l_{jt} + \beta_8 PSES_{it} + \beta_9 PE_{it} + \beta_{10} TY_{it} + \beta_{11} GR_{it} +$$
$$\beta_{12} Ptw_{it} + \beta_{13} Sex_{it} + \beta_{14} SPC_{it} + \beta_{15} JC_{it} + \beta_{16} EP_{it} + \vartheta_{it}$$

whereby, the dependent variable, y_{it} is a dummy variable for each student, *i*, in school *t*, equal to 1 if the student has applied to a university as their CAO first preference with $SSES_{jt}$ being the average of the SES of school j which i attends. Dummy variables, ST_{it}, are employed to measure the effects of voluntary secondary school type *j* over and above the effect for other school types. The coefficient of the independent variable, DS_{it} measures the effect of *j* being a DEIS school on its applications to university. $Size_{jt}$ is the independent variable which measures school size, by student numbers, in the previous academic year which would give rise to the staffing complement in the school in the survey year, D_{jt} is the minimum distance in kilometres from each school to its nearest university. This variable is defined by geo-coding the school and each of the universities and ascertaining the distance to the nearest university. Dummy variables, P_{jt}, are employed to measure province effects for Leinster over and above the other provinces. The model also estimates school religion affiliation effects, $D_{Rel\ jt,}$ again using dummy variables, where 1 equals a Catholic school when compared to other non-Catholic schools. Dummy variables are used to take account of participation in Transition Year (TY_{it}), grinds (GR_{it}) and part-time work (Ptw_{it}). $PSES_{it}$ is the average of the parental SES for student i, PE_{it} is the level of parental education, SPC_{it} measures the student's perception of the percentage of their peers in the school who will proceed to college, while JC_{it} measures the student's academic performance in

their Junior Certificate and EP_{it} measures the Leaving Certificate point expectations of the student. Finally, ϑ_{it} is an error term. Estimation and significance testing are based on binary logit analysis, similar in methodology to Smyth and Hannan (2007), (p.183).

Another independent variable considered was an expected points variable for each student as discussed in the previous chapter. The results are similar to the outcome when Junior Certificate results are added to the model, other than less significance levels for school SES and parental education.

The variables and their definitions are summarised in Table 5.1.

Table 5.1: Explanation of the variables in the model

Variable	Explanation
y_j	Dummy variable where 1 = student applied to university (dependent variable).
$SESjt$	The average SES of the school *j* which *i* attends.
$Size_{jt}$	Size of school j (number of pupils)
$Dist_{jt}$	Distance in kms between school *j* which *i* attends and its nearest university
D_{Typejt}	Dummy variable where 1 = Secondary School
DP_{jt}	Dummy variable where 1 = School is based in Leinster
DR_{jt}	Dummy variable where 1 = Denomination of School is Catholic.
$D_{DEIS\ jt}$	DEIS School designation
$PSES_{it}$	Average Parental SES for student i
PE_{it}	Father and Mother's Educational Attainment
TY_{it}	Transition Year participation of student i
Gr_{it}	Grinds participation by student i
Ptw_{it}	Part-time work by student i
SPC_{it}	Student's perception of percentage of peers going to college
JC_{it}	Junior Certificate score of student i
EP_{it}	Expected Leaving Certificate points for student i
ϑit	Error term

5.5 Analysis of the results from the Models

The tables which follow indicate the relationship between the dependent variable and the independent variables which have been added in stages. Table 5.2 considers school and regional variables, Table 5.3 considers these variables in addition to family characteristics, Table 5.4 indicates the changes following the addition on individual level attributes, excluding Junior Certificate results while finally Table 5.5 provides an overview of the influences of all variables, including expected points on university applications. Table 5.6 includes Dublin Institute of Technology in the analysis.

Table 5.2: Binary Logistic Regression of application to university (versus no CAO application/application to other HE/FE): School and regional variables

	School and Regional Variables
School SES	0.349***
	(0.0903)
Secondary School	0.269**
	(0.103)
DEIS	-0.199
	(0.116)
Distance	-0.340*
	(0.170)
Leinster School	-0.293**
	(0.113)
Constant	1.024**
	(0.347)
Adjusted R^2	.0325
Chi	47.97
N Students	4827
N Schools	105
P	0.000

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

It is evident from Table 5.2 that there is a significant relationship between school composition and application to university, indicating that a student's likelihood of applying to university is higher in schools with a higher socio-economic intake. While attendance at a DEIS school when considered on its own is significant, when school SES is included in the model, the DEIS effect is no longer evident. Students attending secondary schools are more likely to apply to university, with students attending other school types less likely to apply. With regard to distance, there is a negative and significant relationship between distance in kilometres from a school to its nearest university and the likelihood of a student applying to university and this is also the case for schools in Leinster as compared to the other provinces. In this model, we do see this provincial effect having significance yet it falls when we introduce individual level variables in later models. The lower rates of university application for Leinster accords with research by Mc Connell, Mc Coy and Clancy (2006) who studied participation rates by county for students progressing in 2004, and found that the counties with the highest rates of admission to universities were Galway, Cork and Clare while the lowest were Westmeath, Louth, Wexford, Offaly (all Leinster counties) and Cavan (p. 96/97). Dublin was also found to have a relatively low participation rate. They also researched data on the students who migrated to Northern Ireland and Britain, which increased participation rates for Donegal and Monaghan as well as Louth and Cavan to a lesser degree. Considering trend data for 1986, 1992, 1998 and 2004 they show a pattern of higher participation rates in western counties generally. Reports by Clancy 1982, 1988, 1995 and 2001 also show similar lower patterns for Leinster. These findings assist in explaining the

lower rates we find in this study for Leinster, given also that the timing of this study and the Mc Connell et al. study are similar.

We can see from Table 5.3 below that the addition of family variables which reflect parental educational attainment and socio-economic occupation are positively related to university application, with the other variables such as school SES, attendance at a voluntary secondary school, minimum distance and Leinster still holding significance levels. Interestingly, the results indicate a marginally higher coefficient for father's third-level attainment over and above mother's higher education qualifications.

Table 5.3: Binary Logistic Regression of application to university (versus no CAO application/application to other HE/FE): School, regional and family variables

	School (S) and Region (R) Variables	S, R and Family Variables
School SES	0.349***	0.274***
	(0.0903)	(0.0769)
Secondary School	0.269**	0.233*
	(0.103)	(0.101)
DEIS	-0.199	-0.114
	(0.116)	(0.112)
Distance	-0.340*	-0.392*
	(0.170)	(0.166)
Leinster School	-0.293**	-0.307**
	(0.113)	(0.109)
Parental SES		0.237***
		(0.0382)
Father 3rd Level		0.448***
		(0.0860)
Mother 3rd Level		0.245**
		(0.0765)
Constant	1.024**	1.090***
	(0.347)	(0.302)
Adjusted R^2	0.0588	
Chi	174.46	
N Students	4827	
N Schools	105	
P	0.000	

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

In Table 5.4 individual level variables are introduced and we find that Transition Year participation and grinds show positive coefficients while part-time work has a negative effect on likelihood of applying to university. Smyth et al. (2011) in a post-primary longitudinal study which followed a cohort of students through second level found that almost 50% of students took private tuition outside school, a pattern which they found was sharply differentiated by social background. Attendance at a secondary school and distance lose their significance due to the addition of these new independent variables, yet there is a consistent negative influence deriving from attending a school in the Leinster region as compared with other provinces. Of note is the fact that taking account of the other variables in the model males are less likely to apply to university than females. Furthermore we are unable to conclude from the model that there is a statistically significant relationship between peer group influences and college applications as Hanushek et al. 2002 posits.

Table 5.4: Binary Logistic Regression of application to university (versus no CAO application/application to other HE/FE): School, regional, family and individual variables, excluding Junior Certificate results

	School (S) and Region (R) Variables	S,R and Family (F) Variables	S,R, F and Individual Variables, excluding Junior Cert.
School SES	0.349***	0.274***	0.225***
	(0.0903)	(0.0769)	(0.0682)
Secondary School	0.269**	0.233*	0.168
	(0.103)	(0.101)	(0.109)
DEIS	-0.199	-0.114	-0.159
	(0.116)	(0.112)	(0.114)
Distance	-0.340*	-0.392*	-0.278
	(0.170)	(0.166)	(0.166)
Leinster School	-0.293**	-0.307**	-0.286**
	(0.113)	(0.109)	(0.107)
Parental SES		0.237***	0.196***
		(0.0382)	(0.0361)
Father 3rd Level		0.448***	0.384***
		(0.0860)	(0.0899)
Mother 3rd Level		0.245**	0.201*
		(0.0765)	(0.0791)
Transition Year			0.479***
			(0.0948)
Grinds			0.503***
			(0.0787)
Part-time Work			-0.563***
			(0.0764)
Male			-0.230*
			(0.106)
Peer Effect			0.000665
			(0.0759)
Constant	1.024**	1.090***	0.707*
	(0.347)	(0.302)	(0.312)
Adjusted R^2	0.0908		
Chi	359.14		
N Students	4827		
N Schools	105		
P	0.00		

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Of note is the persistent strength of the SES variables both at school and parental level, as well as the higher education influences which derive from both mothers and fathers educational levels associated with university application.

In Table 5.5, prior academic attainment, which is each student's Junior Certificate results, is entered into the model. This has a dramatic effect in that the influence we established in the previous tables for some variables disappears after the introduction of Junior Certificate results. For instance, the province effect falls completely yet it is noteworthy that the minimum distance variable is significant and negative, concluding that students are less likely to apply to university as distance increases from a school to its nearest university. In the Irish Universities Quality Board's report (2010) on student applications, location was ranked as the factor which had most importance in college selection decision-making (p. 8). We also find that the regional/province effect falls, with Leinster not showing significance after Junior Certificate results are added to the model. The Junior Certificate results also mediate mothers' educational attainment and gender. A number of other variables also hold significance after the inclusion of the prior academic attainment variable in the model such as Transition Year participation, payment for private tuition, engagement in part-time work as well as fathers' educational attainment and both parental and school SES. School and parental SES underpin the decision in respect of university application by students as we see from the inclusion of a range of different variables in the model.

Table 5.5 also incorporates the addition of an independent expected points variable for each student, which was the dependent variable in Chapter 4. In this case we remove the Junior Certificate results variable. The effect of this is to reduce the influence of the school SES and father's education level, both of which become insignificant. However, the other variables we discussed such as parental SES, distance, Transition Year, grinds and part-time work still hold explanatory power in the model in terms of explaining the likelihood of applying to university. In effect, the expected points variable condenses further the number of explanatory variables over and above Junior Certificate results, which we may have expected given the larger role expected points takes on in those few months before the Leaving Certificate in terms of university application. In terms of odds ratios, we find that those who took Transition Year are 1.36 times more likely to apply to university than a student who did not take Transition Year, 1.34 times for those who paid for private grinds compared to those who did not, while those who engaged in part-time work were 0.74 times less likely to apply when compared to those who did not engage in part-time work. The comparative odds when the Junior Certificate results are included, instead of expected points, yield odds of 1.61 times more likely to apply to university for Transition Year, 1.56 times more likely in the case of 'grinds' with the negative odds related to part-time work being 0.64 times.

Table 5.5: Binary Logistic Regression of application to university (versus no CAO application/application to other HE/FE): School, regional, family and individual variables, including Junior Certificate results and Expected Leaving Certificate Points

	(1) School (S) and Region (R) Variables	(2) S, R and Family (F) Variables	(3) S, R, F and Individual (excluding Junior Certificate)	(4) S, R F and Individual (including Junior Certificate)	(5) S, R F and Individual (including Expected Points)
School SES	0.349***	0.274***	0.225***	0.159*	0.0211
	(0.0903)	(0.0769)	(0.0682)	(0.0754)	(0.0750)
Secondary School	0.269**	0.233*	0.168	0.0853	0.0559
	(0.103)	(0.101)	(0.109)	(0.111)	(0.115)
DEIS	-0.199	-0.114	-0.159	-0.125	-0.125
	(0.116)	(0.112)	(0.114)	(0.120)	(0.126)
Distance	-0.340*	-0.392*	-0.278	-0.494**	-0.443**
	(0.170)	(0.166)	(0.166)	(0.167)	(0.166)
Leinster School	-0.293**	-0.307**	-0.286**	-0.186	-0.172
	(0.113)	(0.109)	(0.107)	(0.108)	(0.107)
Parental SES		0.237***	0.196***	0.123***	0.111**
		(0.0382)	(0.0361)	(0.0358)	(0.0377)
Father 3rd Level		0.448***	0.384***	0.304**	0.147
		(0.0860)	(0.0899)	(0.0947)	(0.0932)
Mother 3rd Level		0.245**	0.201*	0.152	-0.0420
		(0.0765)	(0.0791)	(0.0818)	(0.0914)
Transition Year			0.479***	0.478***	0.304**
			(0.0948)	(0.0957)	(0.0977)
Grinds			0.503***	0.443***	0.290***
			(0.0787)	(0.0756)	(0.0765)
Part-time Work			-0.563***	-0.445***	-0.295***
			(0.0764)	(0.0814)	(0.0782)
Male			-0.230*	-0.0214	-0.139
			(0.106)	(0.105)	(0.106)
Peer Effect			0.000665	-0.0416	-0.0834
			(0.0759)	(0.0781)	(0.0723)
Junior Certificate				0.00325***	
				(0.000252)	
Expected Points					0.0114***
					(0.000487)
Constant	1.024**	1.090***	0.707*	-1.198**	-4.116***
	(0.347)	(0.302)	(0.312)	(0.381)	(0.396)
Adjusted R^2	0.2215				
Chi	816.67				
N Schools	105				
N Students	4827				
P	0.000				

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Given the large number of CAO first preferences which the Dublin Institute of Technology attracts, Table 5.6 includes Dublin Institute of Technology to the definition of 'university'. Thus, in this analysis, the dependent variable includes any student who applied to either a university or the DIT[34].

Table 5.6 below shows similar influences for each of the independent variables, with the exception of school SES, which is no longer significant once individual effects are entered into the model. Thus, when broadening the definition of university to include DIT, the average socio-economic intake of a school is no longer associated with an individual's likelihood of applying to university versus other forms of higher/further education or not applying through the CAO at all. This perhaps reflects the broader range of academic and non-academic courses on offer in DIT. The remaining coefficients are generally similar to the universities only model, which may indicate the view that processes of application are similar. Courses in the construction area such as architecture and property economics received large numbers of applications at the time of the survey given the context of a booming building industry in Ireland, and many courses in this area were and are part of DIT's portfolio of courses.

[34] The relevant distance variable adjustments were made in the case where the Dublin Institute of Technology became the nearest college to any school in the survey.

Table 5.6: Binary Logistic Regression of application to university/Dublin Institute of Technology (versus no CAO application/application to other HE/FE): School, regional, family and individual variables, including Junior Certificate results

	(1) School(S) and Region (R) Variables	(2) S,R and Family (F) Variables	(3) S, R, F and Individual (excluding Junior Certificate)	(4) S,R,F and Individual (including Junior Certificate)
School SES	0.277**	0.206*	0.143	0.0695
	(0.0887)	(0.0830)	(0.0828)	(0.0889)
Secondary School	0.395***	0.366**	0.334**	0.270*
	(0.120)	(0.115)	(0.115)	(0.121)
DEIS	-0.230	-0.155	-0.178	-0.145
	(0.123)	(0.123)	(0.118)	(0.128)
Distance DIT/Uni	-0.385*	-0.435*	-0.319*	-0.554**
	(0.172)	(0.169)	(0.161)	(0.171)
Leinster School	-0.0434	-0.0479	-0.0116	0.118
	(0.120)	(0.117)	(0.111)	(0.117)
Parental SES		0.214***	0.176***	0.101**
		(0.0377)	(0.0356)	(0.0349)
Father 3rd Level		0.415***	0.349***	0.266**
		(0.0959)	(0.0961)	(0.100)
Mother 3rd Level		0.226**	0.178*	0.128
		(0.0804)	(0.0825)	(0.0852)
Transition Year			0.487***	0.489***
			(0.104)	(0.110)
Grinds			0.546***	0.491***
			(0.0812)	(0.0824)
Part-time Work			-0.487***	-0.367***
			(0.0818)	(0.0857)
Male			-0.0905	0.136
			(0.117)	(0.116)
Peer Effect			-0.0159	-0.0658
			(0.0816)	(0.0874)
Junior Cert Results				0.00332***
				(0.000255)
Constant	0.793*	0.842*	0.279	-1.692***
	(0.362)	(0.346)	(0.375)	(0.415)
Adjusted R^2	.1570			
Chi	303.11			
N Students	4826			
N Schools	105			
P	0.000			

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Other comments

A number of other points are worth mentioning which were undertaken as part of this research. School size on its own does have a significant and negative relationship with college application, but this is mediated when other variables are added. Possible explanations for this may be that larger schools have a wider range of subjects so students have a higher probability of studying subjects they have an innate interest in. Another possible reason is due to the fact that guidance counselling resources available to students is proportionate to school size with schools above 500 pupils having the additional benefit of a full-time guidance counsellor (a 22 hour resource devoted to guidance). For schools below this figure, the guidance counsellor would have a teaching load in a subject in addition to his/her guidance work, which could reduce the guidance hours for students by half to eleven. The quality of the overall provision of guidance as a service for all students has been questioned by some research evidence e.g. Mc Coy et al. (2006), Byrne and Smyth (2010), Mc Coy et al. (2010). This ex-quota provision for guidance has been removed from the 2012/13 academic year following a recent announcement by the Minister for Education and Skills due to Budget cut-backs. Another reason may also be the case that larger schools have access to more school liaison services from colleges, as colleges focus their resources on larger schools.

A key motivation for this research was to identify the influence of distance on the likelihood of applying to university, and the results presented here suggest a negative relationship between distance and university application. It is widely recognised that the cost of college rises substantially if a student has to

reside near or on a University campus and incur accommodation charges in the region of €4,000 annually. This would be the average cost for a campus apartment or marginally less if one was sharing a house. It should be said that a student living at home incurs imputed costs as they add to household running costs and there also is the cost of commuting, so €4,000 is not a full additional cost.

5.6 Summary and Conclusions

This chapter considers how individual, family, school and regional level characteristics impinge on individual university applications in the Republic of Ireland. The results show that parental SES and previous educational attainment as well as school composition each matter significantly. There is also a strong positive influence on the likelihood of applying to university deriving from Transition Year participation and the uptake of private tuition. The converse is true for engagement in part-time work. While students who attend a DEIS socio-economic disadvantaged school are significantly less likely to apply to a university education when considered in isolation, when school SES composition is added to the model the DEIS factor is no longer significant. A recent paper by Smyth and Banks (2012) highlights the importance of the institutional habitus of the school towards student achievement and progression, which works best when it is in tandem with a student's individual habitus through family and home, and also the student's own motivation to seek out and explore college and course information. It is evident that these components work at different levels for students in middle

class schools when compared with working class schools, as they have the advantage of family, school, teacher and guidance counsellor encouragement which may in each of the above enablers be lacking for a student attending a school with a low SES intake. Other research also points to the important role of school processes where for example, Smyth, Banks and Calvert (2011) outline the negative downstream effects which can arise from streaming whereby in some schools students are allocated into 'higher' and 'lower' ability classes for all of their junior cycle subjects, which results in students in the lower stream classes achieving significantly lower Leaving Certificate grades without any corresponding achievement gain for those in the higher stream classes.

At national policy level, to address the under-representation of students from disadvantaged areas and homes attending university a number of initiatives have been undertaken within the second-level sector. Fundamentally the aim is to encourage a higher level of applications for college admission, much of which is in liaison with third-level institutions. These include experience days on campus, mentoring, reductions on points requirements for university entry, additional financial and academic supports post entry as well as interventions at parental level.

The research undertaken in this chapter confirms that these initiatives are necessary if we wish to address the significant under representation which is evidenced in such communities. Recent programmes (e.g. Higher Education Access Route (HEAR)) which is a university and college admissions scheme

which offers places on reduced points and extra college support to school leavers from socio-economically disadvantaged backgrounds has had an impact. More recently, in 2009, the scheme was extended to schools in the Border, Midlands and West region (BMW), and subsequently in 2010 the scheme was changed to offer supports from third level institutions to all second level schools in the country, with over 1,100 students admitted under the HEAR initiative across a range of universities and colleges, rising to 1324 places accepted at Level 8 in 2011. HEAR applications have been increasing each year with a 23.34% increase between 2011 and 2012, with 9,022 applications for HEAR consideration through the CAO in 2012 as compared with 7,315 applying before same initial deadline in 2011[35].

While these changes are welcome, it should be noted that with the increased numbers of students who are making application and are deemed eligible under the scheme, there has not been a concomitant increase in the number of reduced points places in third-level. This will be exacerbated given the large increases for places from socio-economic disadvantaged students for 2012 entry as shown above. It is worth noting that the proportion of students being admitted from DEIS schools within the HEAR scheme has reduced in recent years; in 2008 it was 100%, 58% in 2009, 45% in 2010 and falling to 41% in 2011. There is a danger over time that places acquired by students in DEIS schools will be displaced by non-DEIS students acquiring HEAR supported places given the more advantageous school structures they attend which may have a history of higher numbers of their students progressing to higher

[35] Source: CAO Management summary of application statistics circulated to participating colleges, March 2012.

education (see Smyth and Hannon 2007, and Smyth and Banks 2012 for discussion on benefits for students attending schools which have established links with universities).

The effect of distance was examined, using distance from the school to the nearest university as a variable. Levels of significance were found for minimum distance indicating a negative relationship as between distance and university application. Initial models indicated that students attending schools in the Leinster area were less likely to apply to university, than students in other areas. After the Dublin Institute of Technology was added to the analysis the influence of the region or the school SES no longer predicted the likelihood of applying to university, given the importance of the DIT in the higher educational landscape. This arises from the broader range of both theoretical and applied courses across a diverse range of disciplines including areas such as construction and social care available in DIT. Distance, parental SES and other independent variables such as Transition Year, 'grinds' and part-time work still held significance when DIT was added to the model.

In summary, this chapter has provided important indicative results and explanations for variation in application rates to universities based on different individual, family, school and regional attributes. Important conclusions are reached derived from the empirical results from the models presented. For university application, the importance of school SES and parental SES stands out. The HEAR initiative operated by the universities, with State financial support through the HEA's Strategic Initiatives Fund (SIF), provide dedicated

places on a reduced points basis for students who meet the criteria of disadvantage. In every case, eligibility requires students to provide evidence that they reside in a household which has relatively low income. Separate indicators test for lower parental SES through assessing parental occupation, with a separate indicator for DEIS school attendance which aims at one level to take account of the importance of school SES, which indicates a higher concentration of disadvantage. While this research does provide evidence of the importance of school SES, it should be stated that when the other variables are included in the model the DEIS variable effect on its own is not significant. In saying this, it is reasonable to state there is a value in retaining DEIS as an indicator in the HEAR scheme on the basis that they are the schools which have higher concentrations of disadvantage. Students in those schools are less likely to have the benefits bestowed which other schools gain an advantage through having a legacy of successful past pupils who have attended higher education and progressed in their careers.

The analysis provided in this thesis supports the policy decisions that were made by the higher education institutions and the HEA in establishing the HEAR scheme in addressing the lack of opportunities to progress for under-represented groups. In saying this however there is a significant challenge being presented currently which arises from the mis-match between the increasing numbers who are deemed eligible for the HEAR scheme and demonstrate sufficient academic attainment levels yet due to funding and other considerations, the numbers of reserved places in higher education institutions are not increasing at the same rate. Perhaps the greatest issue is that having

raised the aspirations for many students, which of itself has been a long process, if these aspirations are then not being satisfied it is a loss to future generations, both at societal and economic levels.

Chapter 6

Concluding Remarks

6.1 Review of Results

The aim of this thesis is to examine the individual, family, school and regional characteristics which influence the Leaving Certificate points expectations of Irish school leavers and their application to university. The issue of places in higher education and how they are allocated has always been of great interest among sociologists, economists, educationalists and the general public. Ultimately, the Irish State has an interest in the fair distribution of places given that this is a key component in broader societal improvement, the performance of the economy and also has implications in terms of the distribution of monetary and non-monetary benefits across society. To assist with this we employed a dataset composed of 10% of the Irish Leaving Certificate cohort which is a representative sample of the entire national population of Leaving Certificate students.

In Chapter 1 we considered the pattern of higher education participation especially as it pertained to variation in the take-up of places by socio-economic background. While there has been some closing of the gap in the differential participation rates by social class in Ireland in recent years, it is clear that there is not yet equality across all social groups. This early chapter also put forward a theoretical framework which provides the context as to why this differential still persists today, the rationale for the research, and extended this to set out a series of research questions for the thesis to address, which

have now been addressed. Chapter 2 followed with a discussion of the representativeness of the sample when compared to the national Irish Leaving Certificate population across a range of school level attributes such as school type, province, size, gender mix as well as type of Leaving Certificate programme being undertaken. The chapter details the methodology adopted, including the strategy in terms of modelling and set out the advantages and disadvantages of the approach used as compared to alternative research methods which could been undertaken.

The in-depth survey is considered in Chapter 3 which is descriptive and lays the foundation for the remainder of the thesis. Some conclusions from the chapter are worth emphasising. Students demonstrate a higher preference for honours degrees with over 80% of students indicating that if they received two offers at Level 8 and at Level 7/6, they would accept the Level 8 honours degree offer. The most influential factor in respect of their choice of college is their discernment towards choosing the college that offers the best course in the discipline that they intend to study. While course factors such as career prospects post qualification, the opportunity to study abroad and industrial placement as part of the course are attractions to students, the number one course factor is that students wish to study a course in which they have a strong interest (57.3%).

The most influential person assisting in student decisions about college and courses are mothers (41%), with guidance counsellor (12.8%), older sibling (8.8%) and father (8.1%) being less influential. The chapter also discussed

research by Smyth and Banks (2012) which indicates the variation which can occur as between students in middle class schools as compared with working class schools. The most important sources of information upon which decisions are made are college publications, open days and the internet. The school guidance counsellor plays a key role as a conduit for students in accessing this information and also advising students of new developments given the dynamic nature of course provision by higher education institutions, yet they are not the most influential. The key indicators which result in a good reputation for a higher education institution was a 'high standard of lecturing staff' (31.2%) and an internationally recognised qualification (29.9%). The reason why a student did not apply to college was also an element in the research and this is of interest. The most stated reason as to why students did not make a CAO application were a wish to 'get a job and start a career' (20.2%) while 'going to do an apprenticeship' (17.6%) was reflective of the opportunities at the time in the construction sector. The construction sector was also creating opportunities for unskilled manual work given the scale of the sector at the time of the survey.

Chapter 4 considers the factors at individual, family, school and regional level which influence the Leaving Certificate points expectations of students. In the Irish context, expected points has a high level of importance given that students make applications for colleges and courses in advance without having knowledge of their actual level of attainment. Two contrasting scenarios are considered in respect of the allocation of higher education places related to the Republic of Ireland, where entry points are determined after the release of

grades in August annually compared to the United Kingdom where conditional offers are made in advance of receiving A-level results. The models developed include variables relating to school socio-economic composition (SES), size, type, province and distance from each school's nearest university, as well as family education and occupational background. Using ordinal regression allows us to consider the influence of independent variables for students in different points ranges and compare those in certain points ranges against all others progressively (i.e. points bands were 0-195, 200-295, 300-395, 400-495 and 500+). We find robust evidence that school SES and parental SES as well as Junior Certificate results have a positive effect on a student's expected achievement in the Leaving Certificate, with part-time work having a negative effect. Mothers' educational attainment has a significant influence on expected points across all ranges. The research does find interesting gender effects in that, controlling for prior academic attainment, there are positive effects for boys as against girls at the higher ranges of expected points.

An interesting dichotomy emerges as between Transition Year participation and private tuition ('grinds') in that we find that Transition Year has high levels of positive significance for students in the middle to upper bands. The effect of 'grinds' is found in the lower to middle bands yet falls when we consider the top band compared to all others. DEIS (socio-economic disadvantaged) schools show a negative association when school only factors are considered initially, but this is lost following the addition of school SES and family SES variables, demonstrating that the disadvantage is not contained in the DEIS classification *per se* but rather in the social mix of the students

who attend these schools. We also tested for a distance influence on expected points as well as a provincial effect but did not find a statistically significant relationship across the points bands.

The research in Chapter 4 is extended in Chapter 5 to consider the influences of individual, family, school and regional characteristics on applications to university. As in Chapter 4 we find that there is a strong association between school composition (SES), parental SES and educational attainment, especially fathers' with third-level qualifications, associated with the probability of applying or not to university. Furthermore, while in Chapter 4, we did not find a significant relationship between distance to a school's nearest university and Leaving Certificate expected points, Chapter 5 shows that there is a negative relationship, which is significant in all models, as between university applications and the distance a school is from its nearest university. This result emerges having used an innovative process in this study whereby each school and university was geo-coded (as discussed in Chapter 2). Again Transition Year, private tuition, and Junior Certificate results are significant and positive while part-time work has a negative effect on applications to study at university. Considered on its own, DEIS classification does signal a negative relationship, but this is diminished when school composition (SES) and parental SES are added to the model. There is evidence from the established research that children from more affluent families have greater access to Transition Year (Jeffers, 2002, Smyth et al. 2004), private tuition (Smyth 2008, 2009) and less need to engage in part-time work (Mc Coy and Smyth, 2004, 2007) and thus this channels through to higher

application rates to university which we provide evidence of in this research. When each of the groups of variables across the four attributes of individual, family, school and region are included in the analysis, we do not find significance levels for school type, province, gender or a peer effect on university application as these are mediated especially with the inclusion of the prior attainment variable (Junior Certificate results).

From Chapters 4 and 5 one cannot say that there is a direct DEIS school effect *per se* which gives rise to students having lower points expectations and application rates to university. When the DEIS variable is included without school SES and parental SES, it does have significance but it is 'crowded out' by the inclusion of the school and parental SES independent variables. It is the case that there are higher concentrations of disadvantage in DEIS schools and therefore students who attend DEIS schools may not benefit from peer encouragement which is a feature of non-DEIS schools. For example, as discussed in Chapter 1, Sofroniou, Archer, and Weir's (2004) study of student achievement, using the presence or absence of a medical card as a measure for student socio-economic background, by assessing national assessments for reading and mathematics at primary level, and Junior Certificate results in English and mathematics from 1998 at the school level. They find that the student achievement measures decline in a '*continual and linear manner*' (p.69) as the percentage of students in the school from families holding medical cards increases. In short, they concluded that there was evidence of a social context effect, arising from greater concentrations of disadvantage, whereby the disadvantages of poverty are aggravated when large proportions

of students in a school are from poor backgrounds, since students from families that do not have medical cards as well as students from families who do have cards, appear to be affected by the social context in terms of their achievement. Added to this, we can conclude that the State and other supports which operate in DEIS schools are not adequately addressing the low participation rates in higher education in a meaningful way which compounds the issues. An important aspect which is difficult to overcome is the fact that many parents of students in DEIS schools do not have a higher education qualification, and thus may be less likely to encourage their children to attend college. This research shows the importance of parental education levels for student ambition both in terms of the points they hope to achieve and also the rate to which they will apply to university.

The HEAR scheme, administered by the universities and a small number of other colleges, targets students from low income families, where there is proven evidence of low income levels, but this is a long term solution given the scale of the marginal change annually. In the short term, there is a greater need to work with the parents and teachers in schools which have high levels of students from socio-economic disadvantaged backgrounds so that the parents can actively encourage their children to achieve better results and participate in higher education. In tandem with this there is a need for teachers to proactively teach their pupils the subjects at the required level to gain admission to university. Another approach is for schools, through their guidance counsellors, to promote CAO parents evenings and invite college

personnel and college students to attend and discuss the opportunities which a college education can impart.

Recent policy changes, arising from the Budget announced at the end of 2011 and taking effect from the 2012/13 academic year, will remove the ex-quota guidance posts in schools, and this may have the consequence of reducing the provision of such productive events taking place. While these are often well attended it is sometimes the case that the parents who would benefit most from such an evening are those that are not in attendance. The research detailed in Chapters 3, 4 and 5 which showed the important influencing role which parents have, both mothers and fathers, on the post schooling choices of students point to the necessity to involve them to a greater degree in providing an encouraging home environment supportive of college participation. The conclusions from this thesis accords with the results found by James (2001, 2002), and Smyth and Hannan (2007) which strongly support the view that the key determinants are school and parental SES as they play a highly significant role in the formulation of the Leaving Certificate points expectations of students and their subsequent decision to apply to university or not. Given this conclusion, a recommendation arising from this work would be to co-ordinate the work of home school liaison teachers with the pre-entry support staff in Access Offices in the universities and colleges so as to benefit from possible synergies in working with parents and families together to encourage applications, acceptances and registrations in third level by socio-economic disadvantaged groups. This is now more imperative than ever given the high

rate of unemployment (14.3%)[36] and increasing emigration from the Republic of Ireland, estimated at 1,000 persons per week[37].

Under the Higher Education Access Route (HEAR) scheme, universities and colleges offer places on reduced points and extra college support to school leavers from socio-economically disadvantaged backgrounds, who meet pre-specified criteria indicating evidence of disadvantage. For the 2009 college intake, there was a policy change in the HEAR scheme to accept applications from students in non-DEIS schools, if they were located in the Border-Midlands-West (BMW) region. Prior to 2009, only students in DEIS schools were eligible to apply, on the basis that these schools were most likely to have larger numbers of students from socio-economic disadvantaged backgrounds. One unintended consequence of the introduction of HEAR places for non-DEIS students has been the fact that non-DEIS students have displaced DEIS students as the overall number of national HEAR places has not increased commensurately. In 2011, at Level 8 honours degree level, 41% of places were accepted by students in DEIS schools (538 from 1,324 for all colleges), which was a reduction from 2010 whereby 45% of places on the HEAR scheme for universities and DIT were accepted by students from DEIS schools. This compares with 58% in 2009, and 100% in 2008[38], showing a clear decline year-on-year. It is clear that the number of non-DEIS acceptances is rising at a faster rate than DEIS places through the HEAR scheme in higher education. Due to the fact that HEAR places are limited, there is a danger that over time

[36] Standardised Unemployment Rate, May 2012.Central Statistics Office.
[37] Quarterly Economic Commentary, Winter 2010. Economic and Social Research Institute.
[38] HEAR acceptances for 6 universities (excluding NUI Galway) and DIT in 2008, 2009 and 2010 were 720, 546 and 740 respectively. NUI Galway joined the HEAR scheme in 2009 and had 106 acceptances in 2009 and 149 in 2010.

the proportions of students from DEIS schools will decrease and the benefits which derive from the networks which students establish with their former schools, as well as acting as role models will be reduced over time. Given the larger concentrations of disadvantage in DEIS schools in terms of school and parental SES, this would be a retrograde step.

While increasing the HEAR places is one option, this is constrained by the fact that each higher education institution in the scheme is required to fund a bursary of at least €500 per student per year from its own resources, which would be €2,000 over a four year programme. There are also the associated costs of other post entry supports. Schuetze and Slowey (2000) discuss the importance which financial and other supports play for under represented groups in the decision as to whether to study or not, and this bursary assists in the maintenance support of socio-economic disadvantaged students at college. One policy change which could be considered as a result of the research in this thesis is to set aside a quota of places for students meeting the DEIS attendance criteria (currently students have to have studied in a DEIS school for at least 5 years) as it is the case that DEIS enrolment is a proxy for lower school SES composition given lower parental SES of those attending DEIS schools. These measures are verified by the Educational Research Centre's assessment of school composition for eligibility for DEIS designation.

The research in this thesis finds that students in schools with a lower SES profile have a poorer perception of how well they will do in the Leaving Certificate even when controlling for ability levels based on Junior Certificate

results. It may be the case that the students attending such schools receive less encouragement to actively participate in higher education by teachers given their traditionally low levels of progression. Smyth and Banks (2012) find important contrasts as between the guidance supports and institutional habitus for students in a middle class school when compared to the environment for students in a working class school. This is the case even given the circumstance where the achievement of the students in the working class school was high when their Junior Certificate results are considered. Whereas the more advantaged students, in the middle class school, received more formal guidance classes and were encouraged to go to university open days, the more disadvantaged students received low levels of guidance, which often lowered their aspirations. Attendance at college open days was seen by some teachers, in working class schools, as the students using them as a way of missing classes. Chevalier et al. (2009) found similar phenomena in the UK and conclude that "*These misperceptions could affect their decision over whether or not to go to higher education*". Thus, there is a policy requirement to create interventions which would raise the academic self confidence of students in schools which have a lower socio-economic composition, through working with their teachers, to a higher level which in turn would assist in addressing the participation gap which exists for underrepresented groups in higher education.

One of the aims of current Irish education policy is to increase participation by students from lower socio-economic groups who to date have not shared in the benefits of higher education equally. This study identifies the influences which

impact both on academic points expectations and applications to university, especially in respect of the importance of school and parental SES variables. The study reinforces the benefits of the HEAR scheme as a route to counteracting the initial disadvantage which many students have given their lower socio-economic circumstances, as evidenced through lower school and parental SES indicators. It is important to state that the benefits of the scheme have intergenerational effects in the long run given the patterns we found which derive from mother and father educational attainment. There are also short run benefits through the establishment of positive networks between schools with lower participation rates and colleges through the channel of past pupils as role models. The scheme is due to be reviewed in the near future to ensure it is meeting its objectives - changes at policy level of this scheme could have profound consequences over many years due to the intergenerational nature of higher education, and thus there is an imperative that the research and consequential policy changes made are evidence based.

I now return to the conceptual and theoretical frameworks which were posited in Chapter 1, and the accompanying hypotheses. The early studies in social inequality in the 1950s (Hyman, 1953; Kahl, 1953; and Riessman, 1953) focused on social class differences in the role of aspirations in educational attainment. The 1960s and 1970s gave rise to the 'status attainment' perspective (Blau and Duncan, 1967; Sewell et al., 1969, 1970) and the interplay between expectations and aspirations within which the expectations of significant others such as peers, parents and teachers become internalised by the student and shape their aspirations. The criticism that this theory did not

take cognisance of broader social structures, but rather having as its main focus individual socialisation processes, led to more recent frameworks, namely, social reproduction theory and rational action perspective. In short, social reproduction theory (Bourdieu, 1973; Bourdieu and Passeron, 1977) has an emphasis on the unequal distribution of social, cultural and economic resources across social classes and how these are transmitted from generation to generation. The Rational Action Theory (RAT), on the other hand, assumes individuals and their families act rationally through evaluating varying options, estimating the costs and benefits of each as well as their probability of success before making the optimal decision (Boudon, 1974; later refined by Goldthorpe 1996, 1998 and Breen and Goldthorpe, 1997). Part of this theory is the concept of 'primary effects', which are the demonstrated academic abilities of students, and 'secondary effects' which are the educational choices students and their families make, taking account of their initial ability (Jackson et al. 2007). However, RAT does have a weakness in that the important role of the school is left unexplained and instead is considered as a 'black box' which is a lost opportunity.

From this study I have been able to test components of these theories yet one must accept that in reality they are inter-twined in complex ways. For example, in Table 5.5, controlling for Junior Certificate results, I find that students from more affluent families have a higher likelihood of applying to university which corresponds to the primary and secondary effects expounded in the rational actions theory. Here I hold ability constant and then considered variation in educational choices by social class. Additionally, from the social

reproduction theory perspective, I examined the individual and institutional 'habitus' of the dominant professional class in attributes such as grinds and part-time work. Also through the important role of school processes such as school composition and Transition Year participation, which reinforce the dominance of parental SES, we see higher Leaving Certificate point expectations and a higher likelihood of application for university admission in the model results. Interestingly, the peer effect, central to the status attainment theory, was not supported in this study.

Thus, the hypotheses which I set out in Chapter 1, which were developed by reference to the discussion of the theoretical and conceptual frameworks have now been explored in depth and findings set out within this thesis. I do find influences which hold for aspects of the four attributes, namely individual, family, school (composition) and regional (distance) which together explain variation in Leaving Certificate point expectations and whether or not a student applies to university. Together they explain the social inequalities which exist in participation rates by social class to Irish universities, and as importantly give us a deep insight as to why these inequalities continue to persist. There are fundamental influences which derive from family background, are played out through school processes, which then impinge on the educational decisions students make. In summary, established research show that a gap persists (for example, see O Connell et al. 2006; Flannery and O Donoghue, 2009; Mc Coy et al. 2010), which this thesis supports as between those students who have the advantage of greater parental economic resources, who are likely to have higher educational attainment, attend schools

which have processes which encourage educational advancement, who then have the economic and cultural support to further their own educational progress. This is all in stark contrast to those students who lack parental economic and cultural support, are more likely to attend schools whereby their aspirations are lowered as a result of school processes such as the negative consequences of streaming, which often occurs as early as second year, and reduced access to guidance services. They also are unlikely to benefit from a Transition Year experience and may have to engage in higher levels of part-time work leading to a likelihood of lower points expectations in their Leaving Certificate and thus, they are less likely to apply for university. Yet this occurs even though these students have the same innate abilities.

6.2 Future Research

An area of research not undertaken to this point is to compare the influences of older siblings against those of parents, given that in some cases parents may not have attended college, whereas an older sibling(s) may be a graduate(s). Of interest would be to examine the pattern of influence to one (or more) institutions within a family network which could have an impact on a school leaver's choices, as compared to others who do not have those direct family networks. For instance, Ceja (2006) in a study of students in California finds that older siblings replace parents as information sources in many instances when parents are unable to assist with the college application decision. Of particular interest is the discipline choice of students in a range of schools and how these have been influenced as a result of lower or higher points expectations.

The scope of this research did not extend to consider teacher effects which may be key. Konstantopoulos (2006) finds that the teachers a student is assigned may be more important than the schools they attend. Large grind schools that are located in Irish cities promote the fact that a student attending has access to better teachers than the average school across the range of subjects taken. Indeed they allow students to select their preferred teacher at different times in the school timetable which is feasible given larger numbers of students and teachers overall. One related area of research would be to consider variations in school processes between various types of schools, with a view to ascertaining best practice for schools taking account of student and teacher characteristics so as to encourage higher student ambitions and increased applications for third level. Social imbalances in higher education participation do appear to be strongly resistant to change across a range of countries and it is not just an Irish phenomenon, and thus it requires a number of effective policy interventions, drawn from evidence based research, to create the conditions for change.

Appendices

Appendix A.1

The following table shows the colleges which students indicated as their Level 8 Honours degree first preference. The table also compares the survey percentage of first preferences by college to the actual turnout.

Table A.1: First Preferences by higher education institution in survey compared with actual CAO application percentage

Institution	Frequency	Percent	Actual % or Applications
1 Athlone Institute of Technology	81	2.6	2.0
2 Carlow College	4	.1	.1
3 Carlow Institute of Technology	58	1.8	1.7
4 Cork Institute of Technology	33	1.0	1.4
5 University College Cork (UCC)	399	12.6	11.4
6 All Hallows College, Dublin	3	.1	.1
7 American College Dublin	2	.1	.1
8 Church of Irl. College of Education	6	.2	.1
9 Coláiste Mhuire, Marino, Griffith Avenue	14	.4	.4
10 Dublin Business School	2	.1	.5
11 Dublin City University	168	5.3	5.4
12 Dublin Institute of Technology	279	8.8	10.2

13 Dún Laoghaire Institute of Art	28	.9	1.8
14 Froebel College of Education	5	.2	.2
15 Griffith College Dublin	4	.1	.2
16 Blanchardstown Institute of Technology	3	.1	.1
17 Tallaght Institute of Technology	1	.0	.1
18 Mater Dei Institute of Education, Dublin	7	.2	.2
20 National College of Art and Design	12	.4	.5
21 Nat. Coll. of Ireland (NCI)	5	.2	.3
23 Royal College of Surgeons in Irl	12	.4	.5
24 St Patrick's College of Education, Drumcondra	109	3.4	2.6
25 Trinity College Dublin	273	8.6	10.5
26 University College Dublin	340	10.7	12.3
27 Dundalk Institute of Technology	37	1.2	1.5
28 Galway-Mayo Institute of Technology	71	2.2	1.8
29 National University of Ireland,Galway	415	13.1	8.8
30 Letterkenny Institute of Technology	6	.2	.6

31 Limerick Institute of Technology	70	2.2	2.7
32 Mary Immaculate College, Limerick	118	3.7	3.1
34 University of Limerick	265	8.3	8.7
35 NUI Maynooth	118	3.7	4.0
36 Pontifical University, Maynooth, Co Kildare	1	.0	.1
37 Shannon College of Hotel Management	12	.4	.2
38 Institute of Technology, Sligo	31	1.0	.8
39 St. Angela's College, Lough Gill, Sligo	39	1.2	.8
41 St Patrick's College, Thurles, Co Tipperary	2	.1	.1
42 Institute of Technology, Tralee	6	.2	.9
43 Waterford Institute of Technology	137	4.3	4.4
Total	3176	100.0	

Appendix A.2.: Average monthly costs at college

Item	Average Monthly Cost
Rent (Shared House/Flat)	€370
Light/Heat/Power	€40
Food	€186
Travel	€60
Books/Stationery	€48
Clothes/Laundry	€100
Social Life/Medical/Miscellaneous	€150
Total	€954
Annual 8.5 month total	€8,109

Source: Bank of Ireland Student Survey, 2009. In 2005 students not in receipt of a college maintenance grant were also required to pay €750 student services charge.

Appendix A.3: Maintenance Grant Scheme

For the 2007/08 academic year, the reckonable income limits (based on income for the tax-year 2006) were:

No. Dependent Children	Full Maintenance	75% Maintenance	50% Maintenance	25% Maintenance	Half-Fees Only*
Less than 4	€38,675	€41,085	€43,500	€45,920	€48,335
4 to 7	€42,490	€45,150	€47,805	€50,485	€53,120
8 or more	€46,140	€49,025	€51,905	€54,785	€57,665

* 100% of student services charge (€750) paid by grant authority.

Table A.4: Pearson's Correlation Coefficient - Socio-economic group and fathers' educational levels

Education	Soc 1	Soc 2	Soc 3	Soc 4	Soc 5	Soc 6	Soc 7	Soc 8	Soc 9	Soc 10
None	-.019	-.041	-.015	-.002	.005	.000	.003	.030	.048	.025
Primary Level	-.054	-.118	-.073	-.015	-.018	.167	.028	.070	.087	.033
Junior Certificate	-.024	-.153	-.021	-.013	-.015	.055	.167	.068	.016	.005
Leaving Certificate	.059	-.089	.054	.077	.088	-.031	.030	.039	-.031	-.018
Certificate/ Diploma	.057	.094	.091	.014	.027	-.014	-.037	-.053	-.050	-.028
Degree	.125	.498	.053	-.044	-.039	-.108	-.151	-.108	-.086	-.012

Table A.5: Pearson's Correlation Coefficient - Socio-economic group and mothers' educational levels

Education	Soc 1	Soc 2	Soc 3	Soc 4	Soc 5	Soc 6	Soc 7	Soc 8	Soc 9	Soc 10
None	-.011	-.036	-.024	-.037	-.001	.020	.064	.035	.037	-.003
Primary Level	-.024	-.113	-.049	-.074	.030	-.013	.035	.057	.179	.023
Junior Certificate	-.027	-.153	-.040	-.031	.169	-.003	-.018	.024	.092	-.012
Leaving Certificate	.058	-.149	.056	.192	.039	.014	-.002	-.001	-.004	.003
Certificate/ Diploma	.034	.123	.082	.053	-.037	.015	-.016	-.042	-.095	.019
Degree	.011	.515	.031	-.091	-.122	-.021	-.021	-.065	-.153	-.009

Figure A.1: Transition Year Participation

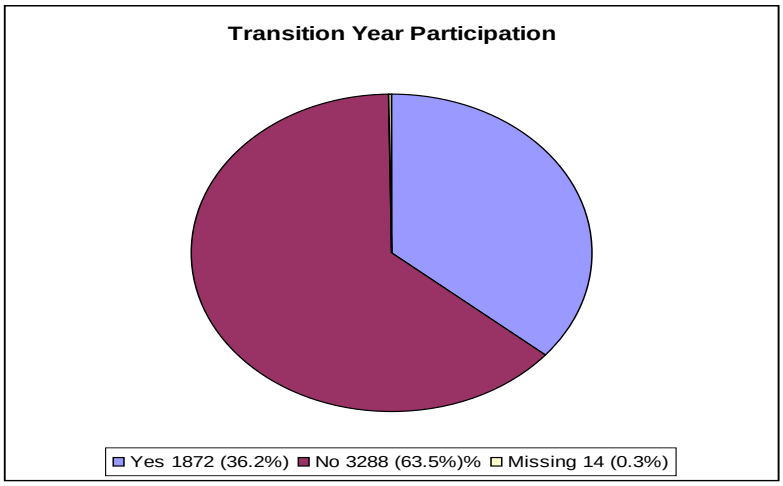


Figure A.2: Part-time work in 5th Year

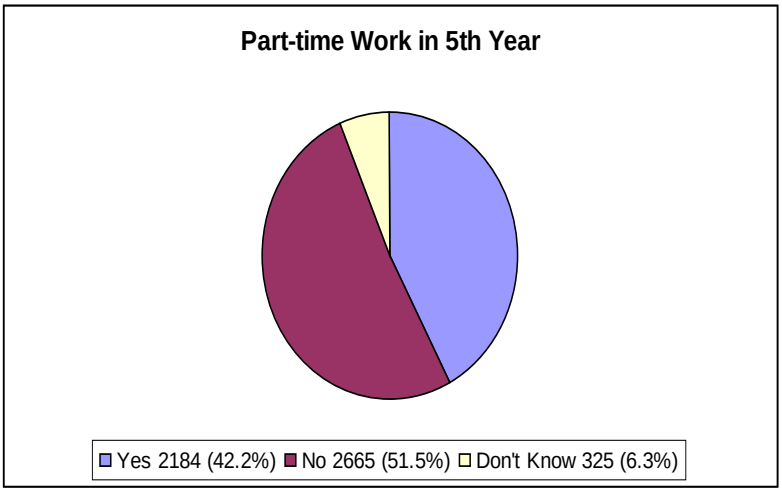


Figure A.3: Part-time work in 6th Year

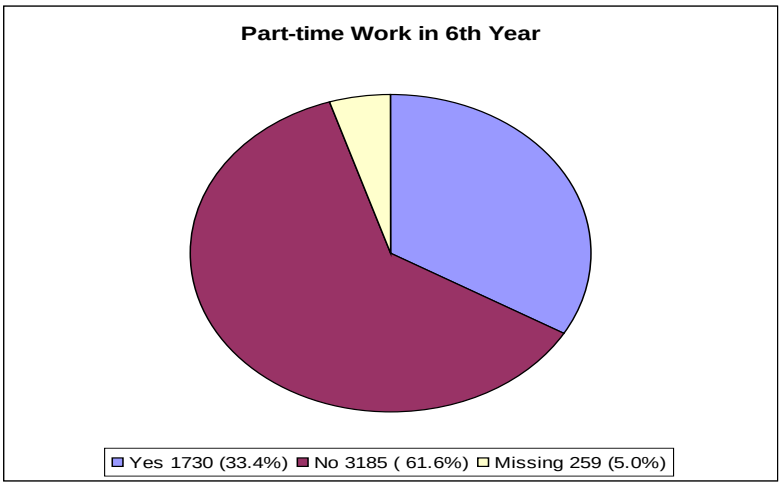


Figure A.4: Private tuition ('Grinds') for Junior Certificate

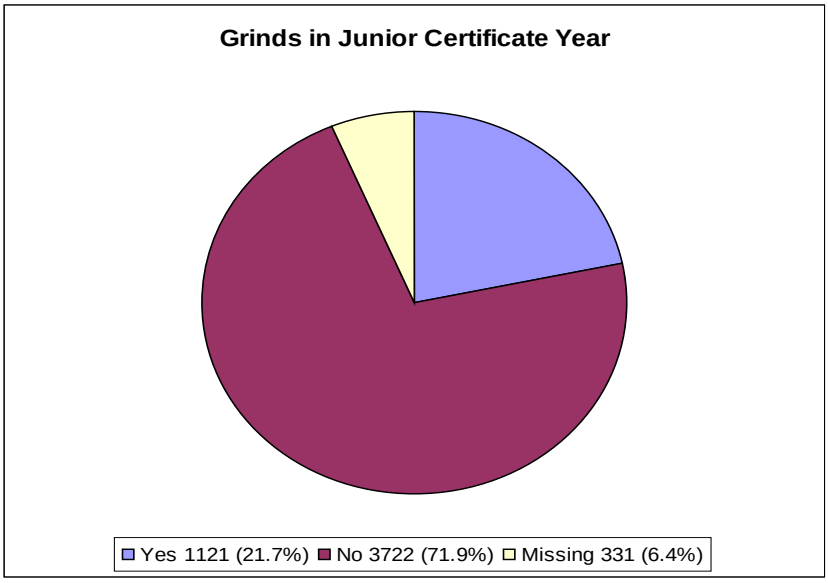
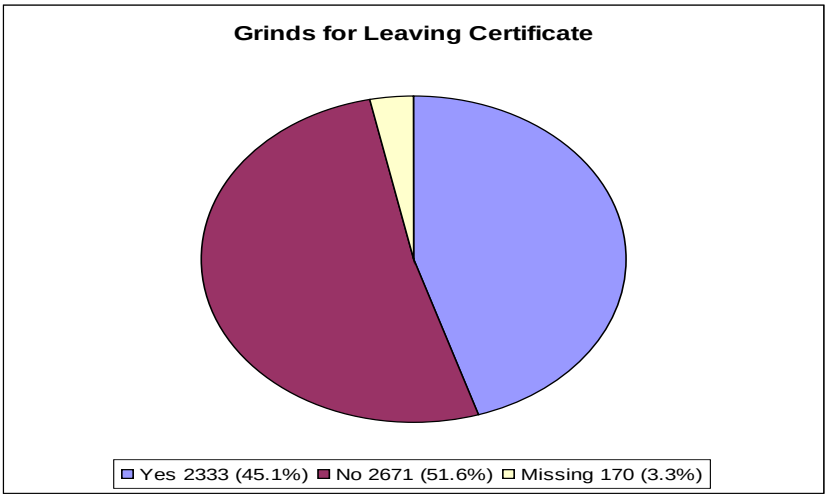


Figure A.5: Private tuition ('Grinds') for Leaving Certificate



Appendix Table A.6

Age of Respondents

The students who completed the questionnaire were asked to indicate their age (date, month and year of birth). As may be seen from the table below, the most frequent year of birth is 1987, which was 18 years of age, with the median and average age also 18.

Year of birth of respondents

Year of Birth (and Approximate Age)	Frequency	Percent
1980 (25)	2	.0
1982 (23)	5	.1
1983 (22)	2	.0
1984 (21)	3	.1
1985 (20)	53	1.0
1986 (19)	1,200	23.2
1987 (18)	2,833	54.8
1988 (17)	1,009	19.5
1989 (16)	12	.2
Missing responses	55	1.1
Total	5,174	100.0

Taking account of students who are repeating their Leaving Certificate, the distribution by age is as follows.

Cross-tabulation of year of birth with repeating the Leaving Certificate

Year of Birth (and Approx. Age)	Repeating the Leaving Certifcate		
	Yes	No	Total
1980 (24)	**0**	**2**	**2**
1982 (23)	**0**	**5**	**5**
1983 (22)	**1**	**1**	**2**
1984 (21)	**0**	**3**	**3**
1985 (20)	**13**	**39**	**52**
1986 (19)	**74**	**1,124**	**1,198**
1987 (18)	**81**	**2,744**	**2,825**
1988 (17)	**8**	**997**	**1,005**
1989 (16)	**0**	**12**	**12**
Total	**177**	**4,927**	**5,104**

SURVEY OF SECOND LEVEL STUDENTS

SCHOOL NO: ☐☐☐

Researchers from the National University of Ireland, Maynooth are carrying out a survey of final year students in secondary school throughout the country. The survey records information on your choices of further study or work after you leave school at the end of this year. It is hoped that by carrying out this study better information can be provided to policy-makers on the choices available to students.

All of the information provided will be treated in the strictest of confidence. It is not possible to link your information to you. There is no individualised ID number on the questionnaire – only a school ID number. The report that we produce will provide general information, based on percentages and averages only. Details from individual respondents will not be reported upon.

Q1. Please tick to indicate whether you are male or female?

Please tick (✓) ONE box only

Male ..... ☐1 Female..... ☐2

Q2. What is your date of birth? ___ ___ ___ ___ ___ ___ ___ ___
day month year

Q3. Approximately how far (in miles) do you currently live from the school?

_____Miles

Q4. What type of school do you attend?

Comprehensive School……..☐1 Voluntary Secondary School…… ..... ☐4
VEC School/Community College ☐2 Other(please specify)…….. ☐5
Community School ..... …☐3

.....

Q5. Is your school fee paying or non-fee paying? Fee Paying…. ☐1 Non fee paying…☐2

Q6. How do you normally travel to school each day?

Walk.....	☐1	You drive……	☐5
Bike	☐2	By bus…….	☐6
Motorbike.....	☐3	By Train……..	☐7
Lift in a car.....	☐4	Other (specify)……	☐8

Q7. Are you currently studying for the Established Leaving Certificate, Leaving Certificate Applied or the Leaving Certificate Vocational?

Leaving Cert. Vocational…….☐1 Leaving Cert. Applied…….☐2

Established Leaving Cert…….. ☐3

Q8. Are you repeating your Leaving Certificate this year?

Yes ..... ☐1 No..... ☐2

Q9. What subjects do you intend sitting for in the Leaving Certificate in June of this year? Please record each subject and the level (honours, pass, or foundation) at which you intend to take it.

Subject	Level			Subject	Level		
	Hons	Pass	Foundation		Hons	Pass	Foundation
1.	☐1	☐2	☐3	6.	☐1	☐2	☐3
2.	☐1	☐2	☐3	7.	☐1	☐2	☐3
3.	☐1	☐2	☐3	8.	☐1	☐2	☐3
4.	☐1	☐2	☐3	9.	☐1	☐2	☐3
5.	☐1	☐2	☐3	10.	☐1	☐2	☐3

Q10. How many points do you realistically think you will get in the Leaving Certificate in June?

0 – 195 ☐1 200 – 295 ☐2 300 – 395 ☐3 400 – 495 ☐4 500 – 600 ☐5

Q11. What sort of job would you like to get established in when you have finished with your education? Please describe as fully as possible.

_____

_____

_____

_____

_____

Q12. Did you do the Transition Year?

Yes ..... ☐1 No..... ☐2

Q13. Did you do any work experience on the Transition Year?

Yes ..... ☐1 No..... ☐2 → Go to Q.15

Q14(a). Please describe as fully as possible the nature of the work experience.

_____

_____

_____

Q14(b). Do you think you would like to work long term in the same broad area as your
Transition Year work experience when you finish your education?

Yes..... ❑1 No.....❑2

Q15. Did you have any part-time job(s) during term time in:

(a) 6th Year: Yes ..... ☐1 No..... ☐2

(b) How many hours are you working per week? _____Hrs.

(c) 5th Year: Yes..... ☐1 No..... ☐2

(d) How many hours did you work per week? _____Hrs.

Q16. Which subjects did you sit for the Junior Certificate, at what level did you sit for them and what grade did you get in them?

Subject	Level	Grade	Subject	Level	Grade
	Hons Pass Found -ation			Hons Pass Found -ation	
1.	☐1 ☐2 ☐3		6.	☐1 ☐2 ☐3	
2.	☐1 ☐2 ☐3		7.	☐1 ☐2 ☐3	
3.	☐1 ☐2 ☐3		8.	☐1 ☐2 ☐3	
4.	☐1 ☐2 ☐3		9.	☐1 ☐2 ☐3	
5.	☐1 ☐2 ☐3		10.	☐1 ☐2 ☐3	

Q17. Did you get any grinds which you or your parents paid for in (a) Junior Cert. Year (3rd yr.) or (b) Leaving Cert. Year (usually 6th yr.)

(a) Grinds in Junior Cert. Year? Yes……☐1 No..... ☐2

(b) Grinds in Leaving Cert. Year? Yes..... ……☐1 No ☐2

Q18. Did you apply for any third level course through the CAO system in the last few months?

Yes…….☐1 ⟶ Go to Q. 19 No…….☐2 ⟶ Go to Q.35, p.9

Q.19 – Q.34 TO BE ANSWERED BY THOSE WHO APPLIED FOR A FURTHER EDUCATION COURSE THROUGH THE CAO SYSTEM. IF YOU DID NOT APPLY FOR A COURSE THROUGH THE CAO SYSTEM GO TO Q.35, P.9

Q19. Did you fill out a paper application form to the CAO or did you fill it in on-line on the Internet?

Paper Form……☐1 On-Line, through Internet……☐2

Q.20(a) Please record below the choices you applied for in the CAO form. In Section (A) (on the left hand side) record the Honours Degree courses (level 8 choices) applied for, if any. In Section (B) (on the right hand side) please record the ordinary level degree and higher certificate courses applied for (levels 6 & 7), if any.
In respect of each course please record in
Column 1: College applied to
Column 2: Course applied for
Column 3: CAO code

Column 4: Approximate road distance (in miles) from your home to the college applied to.
Column 5: Approximate one-way travel time (in hours and minutes) from your home to the college applied to

Section A – Honours Degree – Level 8 Courses **Section B – Ordinary Degree/Higher Cert. – Levels 6&7**

1. College	2. Course applied for	3. CAO Code	4. Appox. dist. from home in miles	5. Appox. travel time from home in hrs & mins	1. College	2. Course applied for	3. CAO Code	4. Appox. dist. from home in miles	5. Appox. travel time from home in hrs & mins
1.			_____ miles	___ ___ hrs mins	1.			_____ miles	___ ___ hrs mins
2.			_____ miles	___ ___ hrs mins	2.			_____ miles	___ ___ hrs mins
3.			_____ miles	___ ___ hrs mins	3.			_____ miles	___ ___ hrs mins
4.			_____ miles	___ ___ hrs mins	4.			_____ miles	___ ___ hrs mins
5.			_____ miles	___ ___ hrs mins	5.			_____ miles	___ ___ hrs mins
6.			_____ miles	___ ___ hrs mins	6.			_____ miles	___ ___ hrs mins
7.			_____ miles	___ ___ hrs mins	7.			_____ miles	___ ___ hrs mins
8.			_____ miles	___ ___ hrs mins	8.			_____ miles	___ ___ hrs mins
9.			_____ miles	___ ___ hrs mins	9.			_____ miles	___ ___ hrs mins
10.			_____ miles	___ ___ hrs mins	10.			_____ miles	___ ___ hrs mins

Q.20(b) If you receive an offer for both your first preferences in Q.20(a) above (i.e. an offer of your first preference from the level 8 honours degree list and also an offer of your first preference level 6/7 ordinary degree/ higher certificate course which would you accept?

Level 8 Honours Degree List…☐1 Level 6/7 Ordinary Degree / Higher Certificate Course…..☐2

Q.21 Now we would like you to think about your first 3 preferences of COLLEGE(S) in section A of the table in Q.20 i.e. about the LEVEL 8 (HONOURS) COURSES. How important were each of the following in influencing your choice as your first, second or third preference.

Please tick (√) one box on each line. (If you have not applied for any LEVEL 8 (HONOURS) COURSE(S) please skip to Q.23)

Importance of factors in first 3 preferences on Honours Degree

Factors	Very Important	Important	Not Very Important	Not at all Important	Does Not Apply
1. General reputation of the college	☐1	☐2	☐3	☐4	☐5
2. College offers best course in the discipline/subject area	☐1	☐2	☐3	☐4	☐5
3. Internationally recognised qualification	☐1	☐2	☐3	☐4	☐5
4. Proximity of the college to my home address	☐1	☐2	☐3	☐4	☐5
5.Range of possible options within my chosen course	☐1	☐2	☐3	☐4	☐5
6. Size (college is relatively small)	☐1	☐2	☐3	☐4	☐5
7. Size (college is relatively big)	☐1	☐2	☐3	☐4	☐5
8. Good transport links to the college	☐1	☐2	☐3	☐4	☐5
9. Academic facilities e.g. libraries, computers etc.	☐1	☐2	☐3	☐4	☐5
10. Leisure and Sports facilities in the college	☐1	☐2	☐3	☐4	☐5
11. Campus environment	☐1	☐2	☐3	☐4	☐5
12. Social life in the college	☐1	☐2	☐3	☐4	☐5
13. Wish to live away from home	☐1	☐2	☐3	☐4	☐5
14. Campus accommodation / apartments	☐1	☐2	☐3	☐4	☐5

Q.22 Which of the above reasons (No.1 to No.14) were the top three single factors, which influenced you most in making your top preferences?
No.1 _____ No.2 _____ No.3_____

Q.23 And now thinking about your top three preferences of COLLEGE(S) on the LEVEL 6/7 (ORDINARY) degree / higher certificate courses (levels 6 and 7 in section B in Question 20 above). How important was each of the following factors in the decision to apply for your first 3 preferences on the ordinary / higher certificate courses? (If you have not applied for any LEVEL 6/7 (ORDINARY) COURSE(S) please skip to Q. 25)

Importance of factors in first 3 preferences on Cert/Dip Courses

Factors	Very Important	Important	Not Very Important	Not at all Important	Does Not Apply
1. General reputation of the college	☐1	☐2	☐3	☐4	☐5
2. College offers best course in the discipline/subject area	☐1	☐2	☐3	☐4	☐5
3. Internationally recognised qualification	☐1	☐2	☐3	☐4	☐5
4. Proximity of the college to my home address	☐1	☐2	☐3	☐4	☐5
5.Range of possible options within my chosen course	☐1	☐2	☐3	☐4	☐5
6. Size (college is relatively small)	☐1	☐2	☐3	☐4	☐5
7. Size (college is relatively big)	☐1	☐2	☐3	☐4	☐5
8. Good transport links to the college	☐1	☐2	☐3	☐4	☐5
9. Academic facilities e.g. libraries, computers etc.	☐1	☐2	☐3	☐4	☐5
10. Leisure and Sports facilities in the college	☐1	☐2	☐3	☐4	☐5
11. Campus environment	☐1	☐2	☐3	☐4	☐5
12. Social life in the college	☐1	☐2	☐3	☐4	☐5
13. Wish to live away from home	☐1	☐2	☐3	☐4	☐5
14. Campus accommodation / apartments	☐1	☐2	☐3	☐4	☐5

Q.24 Which of the above reasons (No.1 to No.14) were the top three single factors, which influenced you most in making your top preferences?
No.1 _____ No.2 _____ No.3_____

Q.25 Now we would like you to think about the factors, which influenced your choice of COURSE(S) (not college), which you applied for in your top 3 preferences on the LEVEL 8 (HONOURS) list above (Section A, Q20). How important was each of the following factors in influencing your course choice? (If you have not applied for LEVEL 8 (HONOURS) COURSE(S) please skip to Q. 27).

Factors	Very Important	Important	Not Very Important	Not at all Important	Does Not Apply
1.Strong interest in subject area	❑1	❑2	❑3	❑4	❑5
2.Career prospects after qualification	❑1	❑2	❑3	❑4	❑5
3.Industrial placement as part of course	❑1	❑2	❑3	❑4	❑5
4.Relatively high points for the course	❑1	❑2	❑3	❑4	❑5
5.Relatively low points for the course	❑1	❑2	❑3	❑4	❑5
6.Opportunity to study afterwards	❑1	❑2	❑3	❑4	❑5
7.Opportunity to study abroad as part of the course	❑1	❑2	❑3	❑4	❑5
8.Potential financial earnings	❑1	❑2	❑3	❑4	❑5
9.Job Satisfaction	❑1	❑2	❑3	❑4	❑5
10.Other (specify) _____	❑1	❑2	❑3	❑4	❑5

Q.26 Which of the above 3 reasons (No. 1 to No. 10.) most influenced your choice of course? .....
No.1 _____ No.2 _____ No.3_____

Q.27 And now we would like you to think about the factors, which influenced your choice of COURSE(S) (not college), which you applied for in your top 3 preferences on the LEVEL 6/7 (ORDINARY) degree / higher certificate courses (Section B of Q.20) How important was each of the following factors in influencing your course choices? (If you have not applied for LEVEL 6/7 (ORDINARY) COURSE(S) please skip to Q. 29

Factors	Very Important	Important	Not Very Important	Not at all Important	Does Not Apply
1.Strong interest in subject area	❑1	❑2	❑3	❑4	❑5
2.Career prospects after qualification	❑1	❑2	❑3	❑4	❑5
3.Industrial placement as part of course	❑1	❑2	❑3	❑4	❑5
4.Relatively high points for the course	❑1	❑2	❑3	❑4	❑5
5.Relatively low points for the course	❑1	❑2	❑3	❑4	❑5
6.Opportunity to study afterwards	❑1	❑2	❑3	❑4	❑5
7.Opportunity to study abroad as part of the course	❑1	❑2	❑3	❑4	❑5
8.Potential financial earnings	❑1	❑2	❑3	❑4	❑5
9.Job Satisfaction	❑1	❑2	❑3	❑4	❑5
10.Other (specify) _____	❑1	❑2	❑3	❑4	❑5

Q.28 Which of the above 3 reasons (No. 1 to No. 10.) most influenced your choice of courses?

No.1 _____ No.2 _____ No.3_____

Q.29(a)Did you discuss with or were you influenced in your choice of college and/or course by each of the following and, if so, how important was each in helping you to make your choice regarding course and/or college.

	Discuss/influence college / course choice?			**If Yes: how important in helping you to make your choices?**				
	Yes	No	Not applicable	Very Important	Important	Not Very Important	Not at all Important	Does Not Apply
1. Mother	❑1	❑2	❑3	❑1	❑2	❑3	❑4	❑5
2. Father	❑1	❑2	❑3	❑1	❑2	❑3	❑4	❑5
3. School guidance counsellor	❑1	❑2	❑3	❑1	❑2	❑3	❑4	❑5
4. Other private guidance counsellor	❑1	❑2	❑3	❑1	❑2	❑3	❑4	❑5
5. College representative came to your class	❑1	❑2	❑3	❑1	❑2	❑3	❑4	❑5
6. College rep. who came into your school or at a general careers seminar / exhibition	❑1	❑2	❑3	❑1	❑2	❑3	❑4	❑5
7. School principal	❑1	❑2	❑3	❑1	❑2	❑3	❑4	❑5
8. Subject teacher	❑1	❑2	❑3	❑1	❑2	❑3	❑4	❑5
9. Older brother / sister	❑1	❑2	❑3	❑1	❑2	❑3	❑4	❑5
10. Other family / relative	❑1	❑2	❑3	❑1	❑2	❑3	❑4	❑5
11. Advice of former student(s) of the college	❑1	❑2	❑3	❑1	❑2	❑3	❑4	❑5
12. Advice of current students of the college	❑1	❑2	❑3	❑1	❑2	❑3	❑4	❑5
13. Classmates	❑1	❑2	❑3	❑1	❑2	❑3	❑4	❑5

Q.29(b) Which of the above (No. 1 to No. 13) were the three most influential?

No.1 _____ No.2 _____ No.3_____

Q.30(a)Did each of the following influence you in making your college/course choice? For those, which did, how important an influence was each in making your choice?

	Influence your choice of college/course? Yes	No	**If Yes: how important in helping you to make your choices?** Very Important	Important	Not Very Important	Not at all Important	Does Not Apply
1. Publications / prospectus	❑1	❑2	❑1	❑2	❑3	❑4	❑5
2. Open day in the college(s)	❑1	❑2	❑1	❑2	❑3	❑4	❑5
3. Internet	❑1	❑2	❑1	❑2	❑3	❑4	❑5
4. Entrance scholarship	❑1	❑2	❑1	❑2	❑3	❑4	❑5
5. Sports scholarship	❑1	❑2	❑1	❑2	❑3	❑4	❑5
6. Visit to college other than at open day	❑1	❑2	❑1	❑2	❑3	❑4	❑5
7. Radio advertisement	❑1	❑2	❑1	❑2	❑3	❑4	❑5
8. Newspaper advertisement	❑1	❑2	❑1	❑2	❑3	❑4	❑5
9. College CD	❑1	❑2	❑1	❑2	❑3	❑4	❑5
10. Other (please specify) _____	❑1	❑2	❑1	❑2	❑3	❑4	❑5

Q.30(b) Which of the above (No. 1 to No. 10) were the three most influential?

No.1 _____ No.2 _____ No.3_____

Q.30 (c) Has the cost of living away from home (your accommodation, maintenance etc.) restricted

the choice of college or course which you would like to have applied for?

Yes, restricted my choice……..….☐1 No, did not restrict my choice……..☐2

Q.30 (d) Was the choice of course or college, which you wanted to apply for through the CAO restricted in any way by the subjects which you are sitting for in the Leaving Certificate? In other words, would you have realistically liked to have applied for some course or college but were prevented from doing so because you will not be sitting for some subject in the Leaving Certificate in June.

Yes, I was restricted in course choice due to Leaving Cert. subjects…….…..☐1

No, I was not restricted in any way by the Leaving Cert. subjects I am sitting……☐2

Q.30 (e) Describe what you mean as fully as possible.

_____

_____

_____

Q.31 Ideally, how often would you <u>like to be able</u> to travel home when you go to college?

Live at home	2-3 times every week	Once every week	Every two weeks	Every three weeks	Every Month	Less Often	Don't Know
❑1	❑2	❑3	❑4	❑5	❑6	❑7	❑8

Q.32 <u>Realistically,</u> how often do you think you will (or will be able to) travel home when at college?

Live at home	2-3 times every week	Once every week	Every two weeks	Every three weeks	Every Month	Less Often	Don't Know
❑1	❑2	❑3	❑4	❑5	❑6	❑7	❑8

Q.33(a) How important would each of the following be to you in deciding that a college had a "good reputation". Please tick (√) one box on each line.

	Very Important	Important	Not Very Important	Not at all Important	Does Not Apply
1. Internationally recognised qualification	❑1	❑2	❑3	❑4	❑5
2. High standard of lecturing staff	❑1	❑2	❑3	❑4	❑5
3. Good student apartments / accommodation	❑1	❑2	❑3	❑4	❑5
4. Good social facilities	❑1	❑2	❑3	❑4	❑5
5. Good transport links to the college	❑1	❑2	❑3	❑4	❑5
6. Attendance at the college will lead to better career prospects	❑1	❑2	❑3	❑4	❑5
7. Very good academic facilities - laboratories, lecture rooms etc	❑1	❑2	❑3	❑4	❑5
8. Ranking on college "League Tables" in newspaper	❑1	❑2	❑3	❑4	❑5
9. Good sports facilities	❑1	❑2	❑3	❑4	❑5

Q. 33(b) Which of the above reasons (No.1 – No. 9) is the single most important?

_____

Q.34 Do you think it is likely that you would qualify for a County Council or a VEC maintenance grant when at college? (Annual Household income below €38,000 annually).

Yes..... ❑1 No..... ❑2 Don't Know..... ❑3

Now go to Q.37

Q.35 Why did you not apply to do a further course through the CAO system? Please give your

reasons as fully as possible.

_____

_____

_____

Q.36 Please tick (√) in Column A to indicate whether or not each of the following reasons have any influence on you not applying for a course through the CAO system this year? For each of the factors which <u>did</u> have an influence on you, please tick (√) in Column B to indicate how important an influence you feel this was.

	Column A		Column B			
Factors	**Influence on not applying through CAO?**		**If so: How important an influence did it have?**			
	Yes	No	Very Important	Important	Not Very Important	Not at all Important
1. I'm going to do a Post Leaving Cert. course followed by work.	❑1	❑2	❑1	❑2	❑3	❑4
2. I'm going to do a Post Leaving Cert. course followed by college.	❑1	❑2	❑1	❑2	❑3	❑4
3. I'm going to do an apprenticeship.	❑1	❑2	❑1	❑2	❑3	❑4
4. I'm going to do another course outside the CAO system (please specify name _____)	❑1	❑2	❑1	❑2	❑3	❑4
5. I have no interest in doing any further education or courses.	❑1	❑2	❑1	❑2	❑3	❑4
6. I'm going to travel abroad next year and then work.	❑1	❑2	❑1	❑2	❑3	❑4
7. I'm going to travel abroad next year and then return to further education or college.	❑1	❑2	❑1	❑2	❑3	❑4
8. I'm going to repeat the Leaving Certificate.	❑1	❑2	❑1	❑2	❑3	❑4
9. I'm going to college in Northern Ireland or abroad.	❑1	❑2	❑1	❑2	❑3	❑4
10. I want to get a job and start a career.	❑1	❑2	❑1	❑2	❑3	❑4
11. I'm going to work in the family business or farm.	❑1	❑2	❑1	❑2	❑3	❑4
12. Other reason. _____	❑1	❑2	❑1	❑2	❑3	❑4

Q.37 About what percentage of the people in your school who are sitting the Leaving Certificate in June will go on to college? ..... _____ Percent.

Q.38 Which of the following best describes (a) your Father's current situation (b) your Mother's current situation with regard to employment? Please circle relevant number.

	(a) Father	(b) Mother
At work as an employee	1	1
At work as an employer	2	2
Self-employed without employees	3	3
Unemployed	4	4
Retired	5	5
Engaged on home duties	6	6
Unable to work due to disability	7	7
Deceased	8	8
Other	9	9

Q.39 What is (or was) your Father's main occupation? (If farmer or relative assisting, state acreage.)

_____

_____

_____

Q.40 What is (or was) your Mother's main occupation? (Applies only if Mother worked outside the home at some stage. If farmer or relative assisting, state acreage.)

_____

_____

_____

Q.41 Could you tell me the highest level of education reached by your (a) father and (b) mother?

(a) Father		**(b) Mother**	
None/Primary not completed	❑ 1	None/Primary not completed	❑1
Primary or equivalent	❑ 2	Primary or equivalent	❑2
Junior/Inter Cert/Group Cert or equivalent	❑ 3	Junior/Inter Cert/Group Cert or equivalent	❑3
Leaving Cert or equivalent	❑ 4	Leaving Cert or equivalent	❑4
Diploma/ Certificate	❑ 5	Diploma/ Certificate	❑5
Primary / First Degree or higher	❑ 6	Primary /First Degree or higher	❑6
Don't Know	❑ 7	Don't Know	❑7

Q.42 (a) How many older brothers do you have? _____

How many older sisters do you have? _____

Q.42 (b) Did / are the following members of your family attend(ing) any type of 3rd level education or doing any diploma or degree course(s)?

	Name of College Attended	Started but didn't complete Cert./Dipl-oma/ Degree	Completed Cert. / Diploma	Completed Degree	Currently studying for a Cert. / Diploma	Currently studying for a Degree	Not Relevant
Father	_____	❑2	❑3	❑4	❑5	❑6	❑7
Mother	_____	❑2	❑3	❑4	❑5	❑6	❑7
Eldest Brother	_____	❑2	❑3	❑4	❑5	❑6	❑7
2nd Eldest Brother	_____	❑2	❑3	❑4	❑5	❑6	❑7
3rd Eldest Brother	_____	❑2	❑3	❑4	❑5	❑6	❑7
Eldest Sister	_____	❑2	❑3	❑4	❑5	❑6	❑7
2nd Eldest Sister	_____	❑2	❑3	❑4	❑5	❑6	❑7
3rd Eldest Sister	_____	❑2	❑3	❑4	❑5	❑6	❑7

Q.43 If someone completes a third level certificate/ordinary degree or honours degree after secondary school do you think that within five years of completing their education and getting a job they would be earning more, the same or less than someone who gets a job straight from school without completing a third level qualification?

Earn less ..... ☐1 Earn the same..... ☐2 Earning more .....☐3

Q.44 Finally, how important would you say each of the following is in terms of long-term satisfaction in life?

	Very Important	Important	Not Very Important	Not at all Important
Money	❑1	❑2	❑3	❑4
Satisfaction with your job	❑1	❑2	❑3	❑4
Security in your job	❑1	❑2	❑3	❑4
Qualifications	❑1	❑2	❑3	❑4
What other people think of you	❑1	❑2	❑3	❑4
Your family and friends	❑1	❑2	❑3	❑4

Thank you very much for taking the time to complete this questionnaire.

Figure A.7: List of participating schools

Ardscoil na nDéise, Dungarvan, Co. Waterford.
Abbey Community College, Waterford.
Ardee Community School, Ardee, Co. Louth.
Ardscoil Mhuire, Corbally, Limerick.
Ardscoil Rís, Griffith Avenue, Dublin 9.
Athboy Community School (St. James' V.S.), Co. Meath.
Athy Community College, Co. Kildare.
Ballymahon Vocational School, Co. Longford.
Ballymun Senior Comprehensive, Dublin 9.
Beech Hill College, Monaghan.
Blackwater Community School, Co. Waterford.
Boherbue Comprehensive School, Co. Cork.
Boyne Community School, Trim, Co. Meath.
Buncrana Vocational School, Co. Donegal.
C.B.S. James Street, Dublin 8.
Carrick-on-Suir CBS, Co. Tipperary.
Cashel Community School, Co. Tipperary.
Clonkeen College, Blackrock, Co. Dublin.
Coláiste An Chroí Naofa, Carraig na bhFear, Co Cork.
Coláiste Chomain, Ballina, Co. Mayo.
Coláiste Chroí Mhuire An Spidéal, Co. na Gaillimhe.
Coláiste Éanna, Cabra, Dublin 7.
Coláiste Einde, Galway.
Coláiste Eoin, Hacketstown, Co. Carlow.
Coláiste Iósaef, Kilmallock, Co. Limerick.
Coláiste Mhuire, Ballymote, Co. Sligo.
Coláiste Mhuire, Mullingar, Co. Westmeath.
Coláiste Mhuire, Ballygar, Co. Galway.
Coláiste Mhuire, Johnstown, Co. Kilkenny.
Coláiste na Maighdine, Co. Waterford.
Coláiste Naomh Mel, Co. Longford.
Coláiste Phádraig, Castleisland, Co. Kerry.
Coláiste Phobail Ros Cré, Co. Tipperary.
Coláiste Pobail Mhichíl, Cappamore, Co. Limerick.
Collinstown Park Community College, Clondalkin, Dublin 22.
Community School, Bishopstown, Co. Cork.
Community School, Carrick-on-Shannon, Co. Leitrim.
Community School, Castlerea, Co. Roscommon.
Desmond College, Newcastle West, Co Limerick
Douglas Community School, Co. Cork.
Dunshaughlin Community College, Co. Meath.
East Glendalough School, Co. Wicklow.
Ennis Community College, Co. Clare.
Fingal Community College, Swords. Co. Dublin.
Galway Community College, Galway.
Glenamaddy Community School, Co. Galway.
Holy Child Secondary School, Killiney, Co. Dublin.

Letterkenny Vocational School, Co. Donegal.
Loreto College, Mullingar, Co. Westmeath.
Loreto Secondary School, Balbriggan, Co. Dublin.
Meánscoil Chroimghlinne, Crumlin, Dublin 12.
Meánscoil Na mBráithre, Ennistymon,Clare
Moate Community School, Co. Westmeath.
Monaghan Collegiate School, Co. Monaghan.
Moyne Community School, Co. Longford.
New Ross CBS, Co. Wexford.
Newpark Comprehensive School, Blackrock, Co. Dublin.
North Monastery Secondary School, Cork.
North Presentation Secondary School, Cork.
Our Lady Of Lourdes, Rosbercon, Wexford.
Our Lady's College, Greenhills, Drogheda, Co. Louth.
Our Lady's Bower, Athlone, Co. Westmeath.
Presentation / De La Salle College, Bagenalstown, Co. Carlow.
Presentation College, Carlow.
Presentation College,Tuam, Co. Galway.
Presentation College, Mardyke, Cork.
Presentation Secondary School, Ballyphehane, Co. Cork.
Ramsgrange Community School, New Ross, Co. Wexford.
Rathmore Community School, Co. Kerry.
Rice College, Ennis, Co. Clare.
Riversdale Community College, Blanchardstown, Dublin 15.
Rosemont Park School, Blackrock, Co. Dublin.
Rosmini Community School, Drumcondra, Dublin 9.
Schull Community College, Co. Cork.
Scoil Chonglais, Baltinglass, Co. Wicklow.
Scoil Chuimsitheach Chiaráin, An Cheathrú Rua, Co. na Gaillimhe.
Scoil Chuimsitheach Naomh Clár, Manorhamilton, Co. Leitrim.
Scoil Mhuire, Drom Collachair, Co. Limerick.
Scoil Mhuire, Ennistymon, Co. Clare.
Scoil Mhuire, Carrick-on-Shannon, Co. Leitrim.
St Fergal's College, Rathdowney, Co. Laois.
St Finians Community College, Swords, Co. Dublin.
St Flannan's College, Ennis, Co. Clare.
St John Of God Secondary School, Artane, Dublin 5.
St Joseph's Secondary School, Charlestown, Co. Mayo.
St Joseph's Secondary School, Stanhope St, Dublin 1.
St Kieran's College, Kilkenny.
St Louis Community School, Kiltimagh, Co. Mayo.
St Mary's High School, Middleton, Co. Cork.
St Mary's Secondary School, Baldoyle, Dublin 13.
St Mary's Secondary School, Mallow, Co. Cork.
St Michael's Secondary School, Finglas, Dublin 11.
St Nathy's College, Ballaghaderreen, Co. Roscommon.
St Patrick's Classical School, Navan, Co. Meath.
St Patrick's College, Cavan.
St Patrick's College, Tuam, Co. Galway.
St Paul's Secondary, Oughterard, Co. Galway.

St Paul’s Secondary School, Greenhills, Dublin 12.
St Peter's Community School, Passage West, Co. Cork.
St Vincent's Secondary School,St Mary’s Road, Cork.
Stratford College, Zion Road, Rathgar, Dublin 6W.
Terence Mac Swiney Community College, Knocknaheeny, Cork.
The Donahies Community School, Dublin 13.
Tullamore College, Co Offaly.
Wilson's Hospital School, Co Westmeath.

Bibliography

(1) Allatt, P. (1993). "Becoming Privileged: The Role of Family Processes" in I Bates and G Riseborough (eds) *Youth and Inequality* Buckingham: Open University Press.

(2) Allatt, P (1996). "Consuming Schooling: choice, commodity, gift and systems of exchange" in S. Edgell, K. Hetherington and A. Warde (eds) *Consumption Matters* Oxford: Blackwell.

(3) Archer, L. and Hutchings, M. (2000). "Bettering Yourself? Discourses of risk, cost and benefit in ethnically diverse, young working class non-participants' constructions of higher education." *British Journal of Sociology of Education* Vol. 22, No. 4, p. 555-575.

(4) Archer, P. and Weir, S. (2004). *Addressing disadvantage: A review of the international literature and of strategy for Ireland.* Report to the Educational Disadvantage Committee. Dublin: Educational Research Centre.

(5) Banks, J., Byrne, D., Mc Coy, S. and Smyth, E. (2010). *Engaging Young People? Student Experiences of the Leaving Certificate Applied Programme.* Dublin: Economic and Social Research Institute.

(6) Becker, G., (1964). *Human Capital theoretical analysis with special reference to education.* New York: Columbia University Press for NBER.

(7) Becker, G. and Hecken, H.E. (2009). "Higher Education or Vocational Training? An Empirical Test of the Rational Action Model of Educational Choices suggested by Breen and Goldthorpe and Esser". *Acta Sociologica* Vol. 52, p.25-45.

(8) Ben Porath, Y. (1967). “The Production of Human Capital and the Life Cycle of Earnings”. The Journal of Political Economy, Vol 75, No. 4, part 1: p. 352-365.

(9) Blau, P. (1996), *Exchange and Power in Social Life*. Transaction Publishers, New Brunswick (USA) and London (UK).

(10) Blau, P. and Duncan, O.D. (1967). *The American Occupational Structure.* New York: Wiley.

(11) Boudon, R. (1974), *Education, Opportunity and Social Inequality*. Wiley: New York.

(12) Bourdieu, P. (1971). Intellectual Field and Creative Project. In M.K.D. Young (ed.), *Knowledge and Control: New Directions for the Sociology of Education* (p. 161-188). London: Collier Macmillan.

(13) Bourdieu, P. and Passeron, J. (1977). *Reproduction in education, society and culture.* London and Beverley Hills, Sage.

(14) Bourdieu, P., Passeron, J-C. (1979). *The Inheritors: French Students and their Relations to Culture*, University of Chicago Press: Chicago.

(15) Bourdieu, P. (1984). *Distinction*. London: Routledge and Kegan Paul.

(16) Bourdieu, P. (1985). “From Rules to Strategies. An Interview with Pierre Bourdieu.” *Cultural Anthropology* 1, p 110-120.

(17) Boyle, R.P. (1966). “The Effect of High School on Student Aspirations.” *American Journal of Sociology.* 71: p. 628-639.

(18) Breen, R. and Goldthorpe J.H. (1997). “Explaining Educational Differentials: Towards a Formal Rational Action Theory” *Rationality and Society* Vol.9, No.3, p. 275-305.

(19) Brännstrom, L., (2008). “Making their mark: The effects of Neighbourhood and Upper Secondary School on Educational Achievement”. *European Sociological Review,* Volume 3, Number 3, p. 1-16.

(20) Bray, M. and Kwok, P. (2003). “Demand for private supplementary tutoring: conceptual considerations, and socio-economic patterns in Hong Kong”. *Economics of Education Review*, 22, p. 611-620.

(21) Breen, R. and Goldthorpe, J.H. (1997). “Explaining educational differentials: towards a formal rational action theory.”, *Rationality and Society*. Vol. 9, No. 3 p. 275-305.

(22) Brint, S. and Karabel, J. (1989). *The Diverted Dream: Community Colleges and the Promise of Educational Opportunity in America, 1900-1985*. Oxford University Press, New York.

(23) Byrne, D., Mc Ginnity, F., Smyth, E. and Darmody, M. (2010). “Immigration and school composition in Ireland”, *Irish Educational Studies* 29:3, p. 271-288.

(24) Byrne, D. and Smyth, E. (2010). *No Way Back – The Dynamics of Early School Leaving.* Dublin: Economic and Social Research Institute, The Liffey Press.

(25) Byrne, D. and Smyth, E., (2011). “*Behind the Scenes? A Study of Parental Involvement in Post-Primary Education*”. A joint publication by the Economic and Social Research Institute, the National Council for Curriculum and Assessment (NCCA) and the

Department of Education and Skills (DES).

(26) Byrne, D. and Mc Coy, S. (2012-13). "Class and stratification analysis – Unsolved issues and new developments." Forthcoming in *Comparative Social Research,* Vol. 30, 2012-13.

(27) Callender, C. and Jackson, J. (2005). Does the fear of debt deter students from higher education? *Journal of Social Policy,* Vol. 34, No. 4, p. 509-540.

(28) Camerer, C. and Lovallo, D., (1999). "Overconfidence and Excess Entry: An Experimental Approach", *American Economic Review,* 89, p. 306-318.

(29) Card, D., (1993). "Using geographic variation in college proximity to estimate returns to schooling", *Working Paper 317.* Industrial Relations Section, Princeton University.

(30) Carneiro, P. and Heckman, J., (2003). "Human Capital Policy", Working Paper 9495, National Bureau of Economic Research (NBER).

(31) Ceja, M. (2006). Understanding the Role of Parents and Siblings as Information Sources in the College Choice Process of Chicana Students. *The Journal of College Student Development, 47*(1), p.87-104.

(32) Chadwick, B.A., Bahr, H.M., and Albrecht, S.L. (1984). *Social Science Research Methods*, Englewood Cliffs, New Jersey: Prentice Hall, p.214-215.

(33) Chevalier, A. (2004). "Parental Education and Child's Education: A Natural Experiment". Centre for the Economics of Education. London School of Economics. ISBN 07530 1734 2.

(34) Chevalier, A., Harmon, C., O'Sullivan, V. and Walker, I.., (2005). "The Impact of Parental Income and Education on the Schooling of Their Children". *IZA Discussion Paper No. 1496.* The Institute for the Study of Labour (IZA), Bonn, Germany.

(35) Chevalier, A., Gibbons, S., Thorpe, A., Snell, M. and Hoskins, S., (2009). "Students' Academic Self-Perception", *Economics of Education Review,* 28:6, p. 716-727.

(36) Clancy, P. (1982). "Participation in Higher Education: A National Survey". Dublin: Higher Education Authority.

(37) Clancy, P. (1988). "Who Goes to College? A Second National Survey of Participation in Higher Education". Dublin: Higher Education Authority.

(38) Clancy, P. (1995). "Access to College: Patterns of Continuity and Change". Dublin: Higher Education Authority.

(39) Clancy, P. (1997). "Higher Education in the Republic of Ireland: Participation and Performance", *Higher Education Quarterly*, Volume 51, No. 1, January 1997, p. 86-106.

(40) Clancy, P. and Wall J. (2000). "*Social Background of Higher Education Entrants*". Dublin: Higher Education Authority.

(41) Clancy, P. (2001). "*College Entry in Focus: A Fourth National Survey of Access to Higher Education*", Dublin: Higher Education Authority.

(42) Clancy, P. (2008). "*The non-university sector in Irish higher education*." In J.S. Taylor, et als. (Eds.), Non-university higher education in Europe (p.123-145). Amsterdam: Springer.

(43) Coleman, J. (1988). “Social Capital in the Creation of Human Capital”, *American Journal of Sociology* 94, Supplement 95:210.

(44) Connor, H., Dewson, S., Tyers, C., Eccles, J., Regan, J. and Aston, J. (2001). “*Social Class and Higher Education: Issues Affecting Decisions on Participation by Lower Social Class Groups*”, Department for Education and Science, RR267, United Kingdom.

(45) Crabtree, H., Roberts, C. and Tyler, C. (2007). “*Understanding the Problems of Transition into Higher Education*”. University of Salford, Education in a Changing Environment Conference proceedings paper 35_07, p. 339-351.

(46) D’Amico, R., (1984). “Does Employment During High School Impair Academic Progress?”, *Sociology of Education,* 57 (July): p. 152-164

(47) Day, C., Sammons, P. and Gu, Q. (2008). “Combining quantitative and qualitative methodologies in research on teacher’s lives, work and effectiveness: From integration to synergy”. *Educational Researcher,* 37, (1), p. 330-342.

(48) Denny, K., (2010). “What did abolishing university fees in Ireland do?”, University College Dublin, Geary Institute Discussion Paper Series.

(49) Department of Education and Science (2006). “*School Matters: The Report of the Task Force on Student Behaviour in Second Level School*s”. Dublin: Stationery Office.

(50) Dept. of Education and Science (2008), *Retention Rates of Pupils in Second-Level Schools 1999 Cohort.* Dublin: Stationery Office.

(51) Department of Education and Skills (2011). "National Strategy for Higher Education to 2030 – Report of the Strategy Group". Government Publications Office. ISBN -9781406425420 (PN A10/1501).

(52) Department of Education and Skills (2011). "An Evaluation of Planning Processes in DEIS Post-Primary Schools". Dublin: Inspectorate, Department of Education and Skills.

(53) Di Maggio, P. (1982). "Cultural Capital and School Success: the Impact of Status Culture Participation on the Grades of US High School Students." *American Sociological Review*. 47:p. 189-201.

(54) Domina, T. (2007). "Higher Education Policy as Secondary School Reform: Texas Public Schools after Hopwood", *Educational Evaluation and Policy Analysis,* Volume 29, No. 3, p. 200-217.

(55) Dougherty, K. J. (1994). *The Contradictory College: The Conflicting Origins, Impacts and Futures of the Community College.* State University of New York Press, Albany, New York.

(56) Dynarski, S. (2003). "Does Aid Matter? Measuring the Effect of Student Aid on College Attendance and Completion". *American Economic Review,* Volume 93, Issue (1), p. 279-288.

(57) Eff, E.A., Klein, C. and Kyle, R. (2010). "Identifying the Best Buys in U.S. Higher Education". Working Paper No. 201004. Department of Economics and Finance, Middle Tennessee State University.

(58) Eliasson, K, (2006). "The Effects of Accessibility to University Education on Enrollment Decisions, Geographic Mobility, and Social

Recruitment", *Umea Economic Studies 690.* Umea University (originally published in 2001 in Ph. Lic. Thesis No. 558).

(59) Elwood J. and Carlisle K. (2003). "Examining Gender: Gender and Achievement in the Junior and Leaving Certificate Examination 2000/2001", National Council for Curriculum and Assessment.

(60) Entwistle, N. (2005). "Learning Outcomes and Ways of Thinking and Practicing Across Contrasting Disciplines and Settings in Higher Education", *The Curriculum Journal* 16(1), p. 67-82.

(61) Erikson, R. (1984). "Social Class of men, women and families." *Sociology*, Vol. 18, No.4, p.500-514.

(62) Erikson, R. and Jonsson, J.O. (1996). *Can education be equalised? The Swedish case in comparative perspective* (Boulder, Westview Press).

(63) Figlio, D, (2005). "Boys named Sue: Disruptive Children and their Peers", National Bureau of Economic Research (NBER) Working Paper No. w1127.

(64) Fitzpatrick Associates (2004). "Access to Higher Education. A comprehensive report on participation in higher education in Ireland". Dublin: Higher Education Authority.

(65) Flannery, D. and O'Donoghue, C., (2009). "The Determinants of Higher Education in Ireland: A Micro Analysis", *The Economic and Social Review*, Volume 40, No. 1, Spring 2009, p. 73-107.

(66) Frenette, M. (2003). "Access to College and University: Does Distance Matter?", *Statistics Canada,* Research Paper ISBN: 0-662-34143-0.

(67) Gade, E. and Paterson, L. (1980). "A Comparison in Working and Non-Working High School Students on School Performance, Socio-economic Status and Self-Esteem", *Vocational Guidance Quarterly*, 29:65-69.

(68) Goldthorpe, J.H., (1996). "Class Analysis and the Reorientation of Class Theory: The Case of Persisting Differentials in Educational Attainment", *British Journal of Sociology*, Vol. 47, No. 3, pp.481-51.

(69) Goldthorpe, J.H. (1998). "Rational Action Theory for Sociology", *British Journal of Sociology*, 49 (2), p. 167-192.

(70) Goldthorpe, J.H. (2007). "*On Sociology*" Stanford: Stanford University Press.

(71) Gormley, I.C. and Murphy, T.B., (2006). "Analysis of Irish Third-Level College Applications Data", *Journal of the Royal Statistical Society: Series A (Statistics in Society)* Volume 169, Issue 2, p. 361-379.

(72) Haller, A. and Portes, A. (1973). "Status Attainment Processes", *Sociology of Education*, 46 (1): p. 51-91.

(73) Hannan, D.F., Smyth, E., Mc Cullagh, J., O'Leary, R., and Mc Mahon, D. (1996). *Coeducation and Gender Equality: Exam Performance and Personal Development.* Dublin: Oak Tree Press/Economic and Social Research Institute.

(74) Hansen, M.N. (2008). "Rational Action Theory and Educational Attainment. Changes in the Impact of Educational Resources", *European Sociological Review* Volume 24 (1): p. 1-17.

(75) Hanushek, E., Kain, J., Markman, J., and Rivkin. S., (2003). "Does peer ability affect student achievement?", *Journal of Applied Econometrics,* Vol. 18 (5), p. 527-544.

(76) Hatcher, R.M. (1998). "Class Differentiation in Education: Rational Choice" *British Journal of Sociology of Education*, 19: p.5-24.

(77) Healy, M., Carpenter, A. and Lynch, K. (1999). "*Study of First Year Students at Institutes of Technology*", Dublin: Dublin Institute of Technology.

(78) Higher Education Authority (2004). *Towards a National Strategy: Initial Review of HEA Targeted Initiatives to Widen Access to Higher Education.* Dublin: Higher Education Authority.

(79) Higher Education Authority, (2008). "*National Plan for Access to Higher Education 2008-2013*". Dublin: National Office of Equity of Access to Higher Education.

(80) Higher Education Authority, (2010). "*National Plan for Equity of Access to Higher Education 2008-2013: Mid-term Review*". Dublin: National Office of Equity of Access to Higher Education.

(81) Higher Education Authority, (2012). "*Towards a Future Higher Education Landscape*". Dublin: Higher Education Authority.

(82) Hossler, D. and Gallagher,K.S. (1987). "Studying Student College Choice: A Three Phase Model and the Implications for Policy Makers." *College and University*. 2: p. 207-221.

(83) Hyland, A. (2011). "Entry to Higher Education in Ireland in the 21st Century". Discussion paper for the NCCA/HEA held on 21st September 2011. Dublin: National Council for Curriculum and Assessment/Higher Education Authority.

(84) Hyman, H. (1953). "The value systems of different classes: a social psychological contribution to the analysis of stratification", in R. Bendix and S.M. Lipset (eds.) *Class Status and Power*, Glencoe, II.: The Free Press.

(85) Ireson, J. and Rushfort, K. (2005). "*Mapping and Evaluating Shadow Education"* ESRC End of Award Report, Research Project RES-000-23-0117.

(86) Irish University Association (2010). Submission to the Joint Oireachtas Committee on Education and Science. Subject – Student Services Charge.

(87) Irish Universities Quality Board (2011). Summary Report: *The types of information that prospective students require on university and other websites.* Dublin

(88) Jackson, M., Erikson, R., Goldthorpe, J.H., Yaish, M. (2007). "Primary and Secondary Effects in Class Differentials in Educational Attainment. The transition to A-level courses in England and Wales." *Sociologica* Vol. 50, No. 3, p. 211-229.

(89) James, R. (2001). "Participation disadvantage in Australian higher education: An analysis of some effects of geographical location and socio-economic status", *Higher Education* Volume 42 p. 455-472.

(90) James, R. (2002). "*Socio-Economic Background and Higher Education Participation: An Analysis of School Students' Aspirations and Expectations*", Commonwealth Department of Education, Science and Training, Australia.

(91) Jeffers, G., (2002). "Transition Year Programme and Educational Disadvantage", *Irish Educational Studies*, Volume 21, Issue 2, Autumn 2002 p. 47-64.

(92) Jeffers, G., (2007). “Attitudes to Transition Year. A Report to the Department of Education and Science”, Education Department, National University of Ireland Maynooth, Ireland.

(93) Jeffers, G., (2011). “The Transition Year programme in Ireland. Embracing and resisting a curriculum innovation’, *Curriculum Journal* 22:1, p. 61-76.

(94) Jenkins, R. (2002). Pierre Bourdieu. London: Routledge.

(95) Jonsson, J.O., Mills, C. and Muller, W. (1996). “A Half-Century of Increasing Educational Openness? Social Class, Gender, and Educational Attainment in Sweden, Germany and Britain” in *Can Education be Equalised? The Swedish case in Comparative Perspective,* edited by Erikson, R. and Jonsson. Westview Press, Boulder, CO.

(96) Kahl, J. (1953). ‘Educational and occupational aspirations of “common man” boys’. *Harvard Educational Review,* 23, 186-203.

(97) Kellaghan T. and Fontes, P.J., (1980). “Participation in University Education by Gender and Geographical Location”, *The Irish Journal of Education,* Volume 14, No. 1, p. 3-18.

(98) Keller, S. and Zavalloni, M. (1964). Ambition and Social Class: A Respecification’, *Social Forces,* 43: p. 58-70.

(99) Kim, M and Placier, M. (2004). “Comparison of Academic Development in Catholic versus non-Catholic Private Secondary Schools”, *Education Policy Analysis Archives* Volume 12, No. 5.

(100) Kirby A. and McElroy B., (2003). “The Effect of Attendance on Grade for First Year Economics Students in University College

Cork", *The Economic and Social Review*, Volume 34, No. 3, (Winter), p. 311-326.

(101) Kirby, P. (2011). "The Myth of the Celtic Tiger: The Political Economy of Irish development since the 1990's.", in Liam Leonard and Iosif Botetzaglas, eds. *Sustainable Economies and the crises of the Peripherie: Ireland and Greece,* Emerald Books, p.3-23.

(102) Kjellstrom, C. and Regner, H. (1998). "Does Distance to a University Affect Enrolment Decisions? Evidence from Data on Three Cohorts of Swedes." *Working Paper 8/98,* Institute for Social Research, Stockholm University, Sweden.

(103) Konstantopoulos, S. (2006). "Trends of School Effects on Student Achievement: Evidence from NLS:72, HSB:82 and NELS:92", *Teachers College Record*, Volume 108, No. 12, p. 2250-2581.

(104) Lazear, E. (2001). "Educational Production" *Quarterly Journal of Economics*, p. 777-803.

(105) Lareau, A. (2000). *Home Advantage: Social Class and Parental Intervention in Elementary Education.* (2nd Edition). Oxford: Rowman and Littlefield Publishers.

(106) Long, B.T. (2004). "How have college decisions changed over time? An application of the conditional logistic choice model". *Journal of Econometrics*, Volume 121, Issues 1-2, July-August 2004, p. 271-296.

(107) Lucas, S.R. (2001). "Effectively Maintained Inequality: Education Transitions, Track Mobility and Social Background Effects". *American Journal of Sociology* 106: p.1642-90.

(108) Lynch, K., Brannick, T., Clancy, P. and Drudy, S. (1999). "*Points and Performance in Higher Education: A Study of the Predictive Validity of the Points System*". No. 4 in "Commission on the Points System Research Papers", The Stationery Office, Dublin, Ireland.

(109) Lyons, M., Lynch, K., Close, S., Sheerin, E. and Boland, P. (2003). "*Inside Classrooms: the teaching and learning of mathematics in social context*". Dublin: Institute of Public Administration for the Department of Education and Science.

(110) Manski, C.F. and Wise D.A., (1983). *College Choice in America.* Harvard University Press, Cambridge, Massachusetts and London, England.

(111) Marks, G., McMillan, J. and Hillman, K. (2001). "Tertiary Entrance Performance: The Role of Student Background and School Factors". *Longitudinal Surveys of Australian Youth*. Research Report No. 22. Australian Council for Educational Research.

(112) Marsh , H., (1991). "Employment during High School: Character Building or a Subversion of Academic Goals?". *Sociology of Education,* 64: p.172-189.

(113) Mc Coy, S. and Hannon D. (1995). "Early School Leavers: Reform of the Junior Certificate, Educational Achievement and Employment

Chances". Working Paper 067, Economic and Social Research Institute, Dublin.

(114) Mc Coy, S. and Smyth, E. (2004), "*At Work in School: Part-time Employment among Second-level Students*". Dublin: Economic and Social Research Institute/Liffey Press.

(115) Mc Coy, S., Smyth, E., Darmody, M. and Dunne A. (2006). *Guidance for all? Guidance Provision in Second Level Schools.* Dublin: The Liffey Press in association with the Economic and Social Research Institute.

(116) Mc Coy, S. and Smyth, E. (2007). "So Much to Do, So Little Time: Part-time Employment among Secondary Students in Ireland". *Work, Employment and Society*, Volume 21, No. 2. Sage Publications, London.

(117) Mc Coy, S., Byrne, D., O'Connell, P., Kelly, E. and Doherty, C. (2010). "*Hidden Disadvantage? A Study of Low participation in Higher Education by the Non-Manual Group*". Dublin: Higher Education Authority.

(118) Mc Coy, S. and Byrne, D. (2010). *Identifying the Barriers to Higher Education Participation.* Dublin: Economic and Social Research Institute.

(119) Mc Coy, S. and Smyth, E. (2010). "Higher education expansion and differentiation in the Republic of Ireland". *Higher Education* Vol. 61, No.3, p. 243-260.

(120) Mc Donough, P. (1997). *"Choosing Colleges; How Social Class and Schools Structure Opportunity"* State University of New York Press, Albany.

(121) Mc Donough, P.M., Antonio, A.L., Walpole, M. and Pérez, L.X. (1998). "College Rankings: Democratized College Knowledge for Whom?", *Research in Higher Education,* Vol. 39, No. 5, p. 513-537.

(122) Mc Vicar, D. and Mc Kee, B., (2001). "Part-Time Work during Post-compulsory Education and Examination Performance: Help or Hindrance?", NIERC Working Paper No. 63.

(123) Morgan, M., (2000). "School and Part-time Work in Dublin – The Facts, Survey, Analysis and Recommendations", Dublin Employment Pact, Policy Paper No. 4.

(124) O'Connell, P, McCoy, S. and Clancy, D. (2006). "Who went to College? Socio-economic Inequality in Entry to Higher Education in the Republic of Ireland in 2004". *Higher Education Quarterly* Volume 60, No. 4, October 2006, p. 312-332.

(125) O'Connor, C. (2006). "A Spatial Analysis of Access to Higher Education in Ireland", M.Sc. project (unpublished).

(126) OECD (2006). *Higher Education in Ireland: Reviews of National Policies in Education.* Paris: OECD.

(127) Oettinger, G.S., (1999). "Does High School Employment Affect High School Academic Performance?", *Industrial and labour relations Review,* 53, 1: p.136-151.

(128) O'Reilly, P. (2008). "The evolution of university access programmes in Ireland". UCD Geary Institute.

(129) Ordovensky, J. F. (1995). "Effects of Institutional Attributes on Enrollment Choice: Implications for Postsecondary Vocational Education". *Economics of Education Review* Volume 14, No. 4, p. 335-350.

(130) Osborne, R. and Leith H. (2000). *Evaluation of the Targeted Initiatives on Widening Access for Young People from Socio-Economically Disadvantaged Backgrounds.* Dublin: Higher Education Authority.

(131) Phillips, S. and Eustace, A. (2005). *Evaluation of the Millennium Partnership Fund.* Dublin: Higher Education Authority

(132) Post, D. and Pong, S.L., (2000). "Employment during Middle School: The Effects on Academic Achievement in the U.S. and Abroad", *Educational Evaluation and Policy Analysis*, 22, 3: p.273-298.

(133) Raffe, D.L., Croxford, C., Iannelli, M., Shapira, M. and Howieson, C. (2006). "Social Class Inequalities in Education in England and Scotland", Edinburgh, CES Briefing No 40.

(134) Raftery, A. and Hout, M. (1993). Maximally maintained inequality: Expansion, reform and opportunity in Irish education, 1921-75. *Sociology of Education,* Vol. 66 (1), p.41-62.

(135) Reay, D. and Ball, S.J. (1997). " 'Spoilt for Choice': The working classes and education markets", *Oxford Review of Education* Vol. 23, No. 1, p.89-101.

(136) Reay, D. and Ball, S.J. (1998), "Making their minds up: Family dynamics of school choice" *British Educational Research Journal* Vol. 24, No.4, p. 431-448.

(137) Reay, D., David, M.E. and Ball, S. (2005). *"Degrees of Choice, Social Class, Race and Gender in Higher Education"* Dorchester: Trentham Books.

(138) Riessman, L. (1953). “Levels of aspiration and social class”. *American Sociological Review*, 24, 352-366.

(139) Report of the Expert Group to the Minister for Education and Science (2001), “The Allocation of Teachers to Second Level Schools” Dublin: Government Publications Office.

(140) Rouse, C. E., (1995) “Democratization or diversion? The effect of Community Colleges on Educational Attainment”. *Journal of Business Economics and Statistics* Vol. 13 No. 2, pp. 217-224.

(141) Ruhm, C.J., (1997). “Is High School Employment Consumption or Investment”, *Journal of Labour Economics*, 15, 4: p. 735-776.

(142) SA, C., Florax, R.J.G.M. and Rietveld P. (2004). “Does accessibility to schools matter? Choice behaviour of high school leavers concerning academic or professional training”. Tinbergen Institute Discussion paper No. 04-061/3.

(143) Schuetze H.G. and Slowey, M. (Eds.) (2000). *Higher Education and Lifelong Learners: International Perspectives on Change*. London and New York: Routledge-Falmer.

(144) Sewell, W., Archibald, H., Haller, O., and Portes, A. (1969). “The educational and early occupational status attainment process”. *American Sociological Review*, 34, 82-92.

(145) Sewell, W., Archibald, H., Haller, O., and Ohlendorf, G. (1970). “The educational and early occupational status attainment process: Replication and revision”. *American Sociological Review,* 34, 1014-1024.

(146) Sewell W.H. and Hauser, R.M. (1980). “The Wisconsin Longitudinal Study of Social and Psychological Factors in Aspirations and Achievements”, in Kerckhoff, A.C. (ed.), *Research in Sociology of Education and Socialization*, Vol.1, Greenwich, Conn.: FAI Press 1, p. 59-99.

(147) Shavit, Y. and Blossfeld, H.P. (eds.) (1993). *Persistent Inequality: Changing Educational Attainment in Thirteen Countries.* Boulder: Westview Press.

(148) Singh, K., (1998). “Part-time Employment in High School”, *Journal of Educational Research,* 91,3: p.131-139.

(149) Shulruf, B., Hattie, J. and Tumen, S., (2008). “Individual and school factors affecting student’s participation and success in higher

education". *The International Journal of Higher Education and Educational Planning* Volume 56 No. 5 p. 613-632.

(150) Skilbeck, M. and Connell, H. (2000). *Access and Equity in Higher Education: An International Perspective on Issues and Strategies.* Dublin: Higher Education Authority

(151) Smyth, E. (1999). "Do Schools differ? Academic and Personal Development among pupils in the second level sector". Dublin: Oak Tree Press in association with the Economic and Social Research Institute.

(152) Smyth, E and Mc Coy, S. (2003). "Educational expenditure: Implications for equality", in Callan, T., Doris, A. and Mc Coy, D. (eds.), *Budget Perspectives 2004*. Dublin: ESRI/FFS.

(153) Smyth, E., Mc Coy, S., Darmody, M. (2004). "Moving Up: The Experience of First Year Students in Post-Primary Education." Dublin: The Liffey Press/Economic and Social Research Institute.

(154) Smyth, E., Byrne, D. and Hannan, C. (2004). "*The Transition Year Programme - An Assessment*". Dublin: The Liffey Press in association with the Economic and Social Research Institute.

(155) Smyth, E., Dunne, A., Darmody, M. and McCoy, S. (2007). "*Gearing up for the exam?: The experiences of Junior Certificate Students*". Dublin: The Liffey Press in association with the Economic and Social Research Institute.

(156) Smyth, E. and Hannan, C. (2007). "School processes and the transition to higher education", *Oxford Review of Education* Vol. 33, No. 2, p. 175-194.

(157) Smyth, E. (2008). "The more, the better? Intensity of involvement in private tuition and examination performance". *Educational research and Evaluation* Vol 14, No. 5, October 2008 p. 465-476.

(158) Smyth, E. (2009). *Junior Cycle Education: Insights from a Longitudinal Study of Students.* Dublin: Economic and Social Research Institute.

(159) Smyth, E., (2009). "Buying your way in college? Private tuition and the transition to higher education in Ireland". *Oxford Review of Education*. Volume 35, Issue 1, p. 1-22.

(160) Smyth, E., Banks, J. and Calvert, E (2011). '*From Leaving Certificate to Leaving School: A Longitudinal Study of Sixth Year Students'*. The Liffey Press in association with the ESRI, National

Council for Curriculum and Assessment and The Department of Education and Skills. Dublin.

(161) Smyth. E. and Calvert, E. (2011). *Choices and Challenges: the Transition from Junior Cycle to Senior Cycle Education* Dublin: Liffey Press/ESRI.

(162) Smyth, E. and Banks, J. (2012). "There was never really any question of anything else": young people's agency, institutional habitus and the transition to higher education". *British Journal of Sociology of Education,* Vol 33:2, p. 263-281.

(163) Sofroniou, N., Archer, P. & Weir, S. (2004). "An analysis of the association between socio-economic context, gender and achievement," The Irish Journal of Education, 2004, Issue 35, 58-72.

(164) Steinberg, L. and Fegley, S. and Dornbusch, S.M., (1993). "Negative Effect of Part-time Work on Adolescent Adjustment: Evidence from a Longitudinal Study", *Development Psychology*, 29: p.171-180.

(165) Stevenson, D.L., and Baker, D. P. (1992). Shadow education and allocation to formal schooling : Transition to university in Japan. *American Journal of Sociology*, 97 (6), p.1639-1657.

(166) Sullivan, A. (2006). “Students as rational decision-makers: the question of beliefs and attitudes”, *London Review of Education* Vol. 4, No.3, p. 271- 290.

(167) Summers, A. and Wolfe, B., (1977). “Do schools make a difference?” *American Economic Review* 67 (September).

(168) Tansel, A. and Bircan, F. (2005). “Effect of private tutoring on university entrance examination performance in Turkey”. (Bonn, Institute for the Study of Labour (IZA), *Discussion Paper*).

(169) Teddlie, C. and Stringfield, S. (1993). *Schools make a Difference: Lessons Learned from a 10-Year Study of School Effects.* New York: Teachers College Press.

(170) Thorpe, A., Snell., S., Hoskins, S. and Bryant, J. (2007). “False Uniqueness: the Self Perception of New Entrants to Higher Education in the UK and its implications for Access – a pilot study”. Higher Education Quarterly, 61, p. 3-22.

(171) Torrance, H., Colley, H., Garratt, D., Jarvis, J., Piper, H. Ecclestone, K. and Williams, D. (2005). “The impact of Different Modes of Assessment on Achievement and Progress in the Learning and Skills Sector”. LSRC Research Report Ref No 052284. Learning and Skills Development Agency.

(172) Weir, S. (2006). *A report on the procedures used to identify post-primary schools for inclusion in the school support programme under DEIS*. Dublin: Educational Research Centre.

(173) Weir, S., Archer, P. with O'Flaherty, A. and Gilleece, L. (2011). *A Report on the First Phase on the Evaluation of DEIS.* Report to the Department of Education and Skills. Dublin: Educational Research Centre.

(174) Weir, S. (2011). "A Report on the First Phase of the Evaluation of DEIS: Summary Report." Dublin: Educational Research Centre.

(175) Williams, R. (2006), "Generalised Ordered Logit/ Partial Proportional Odds Models for Ordinal Dependent Variables." *The Stata Journal* 6(1): p.58-82.

(176) Win, R. and Miller, P.W., (2004). "The Effects of Individual and School Factors on University Students' Academic Performance". *The Centre for Labour Market Research*. The University of Western Australia, Discussion Paper Series 04/4.