

Monitoring Ireland's Skills Supply

Trends in Education and Training Outputs

July 2010



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Foreword

'Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs' is the fifth in a series of annual reports produced by the Skills and Labour Market Research Unit of FÁS on behalf of the Expert Group on Future Skills Needs (EGFSN). This report draws together all available information on the inflows and outflows of the Irish education system (primary, post-primary, further education and training, and higher education) across the ten levels of the National Framework of Qualifications (NFQ). As such, it provides a unique overview of the skills emerging from the education system in terms of numbers, NFQ levels and fields of learning.



This year's report differs from the previous editions as it includes a more detailed profile of students in higher education (e.g. gender, age, mode of study). There is also an additional chapter which focuses on the first destination and economic status of young graduates in Ireland.

In monitoring the skills supply that emerges from the education and training system in Ireland on an annual basis, the report serves as a valuable tool in the EGFSN's role in advising Government on the current and future skills needs of the economy. This is of particular importance as, in the coming years, the education and training system in Ireland is expected to experience considerable growth as a result of recent increases in the number of school-going age children and greater participation by older learners, particularly in further and higher education/training.

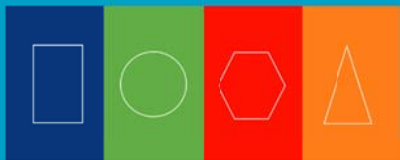
Una Halligan,
Chairperson, Expert Group on Future Skills Needs





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Executive Summary

'Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs' is the fifth in a series of annual reports produced by the Skills and Labour Market Research Unit of FÁS on behalf of the Expert Group on Future Skills Needs.

This series of reports aims to provide an indication of the supply of skills to the Irish labour market from the formal education and training system by examining outflows from the education system across levels 1-10 of the National Framework of Qualifications (NFQ). The supply of skills is examined at each level in terms of:

- student inflows: this is used as an indicator of the potential future supply
- graduate output: this refers to the number of awards made to individuals completing courses at second level, the further education and training or higher education sectors of the education system; graduate output trends are used as an indicator of the potential current supply
- gender: this is used as an indicator of gender balance
- field of learning: this is used as an indicator of the supply of skills by broad type
- international comparison: this is used as an indicator of how Ireland performs internationally in terms of graduate output.

The report follows a pattern similar to that of previous issues of 'Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs'. Following a brief outline of the Irish education system and the National Framework of Qualifications (NFQ) in Chapter 1, Chapter 2 presents key demographic data relevant to the anticipated inflows to the Irish education system. Chapter 2 also details the findings of a Department of Education and Skills (DES) Report on the projected number of full-time enrolments in primary, second and higher level education for future years¹.

Chapters 3-7 examine the supply of skills emerging from the education system for each NFQ level: Chapters 3 and 4 look at the attainments of Irish students at Junior Certificate level (NFQ 3) and Leaving Certificate level (NFQ 4-5). Further education and training (FET) awards (NFQ 1-6) are outlined in Chapter 5. For higher education, CAO acceptance, enrolment data and graduate output are examined for NFQ level 6-8 (undergraduate level) in Chapter 6 while postgraduate enrolment and graduation data (NFQ 9-10) is examined in Chapter 7. This year's report includes an additional chapter - Chapter 8 - which focuses further on the outflows from higher education in Ireland by examining the first destination of graduates nine months following graduation and providing a profile of the economic status of young graduates currently living in Ireland. Chapter 9 provides an overview of the skills emerging from the private education sector. Finally, the number of Irish-resident students pursuing higher education in other countries is presented in Chapter 10.

The main focus of the report is on the most recent data available and where possible we look at a five year trend: for Junior and Leaving Certificate level education, this pertains to the 2004-2008

¹The DES projections are based on the population projections produced by the Central Statistics Office (CSO) in April 2008.



period; comparable data for further education and training outputs is available for 2006-2008 only; CAO data and higher education data is confined to a four year trend as this year the data at levels 6 and 7 has been disaggregated and is only available at this level of detail from 2006 to 2009. International and private education data is examined for various years (depending on source and availability). The latest available data for the first destination of higher education graduates relates to the 2007 cohort.

Outputs from the Irish Education System

Table 1 Summary of Education and Training Awards by NFQ Level, 2009

	NFQ 1-2	NFQ 3	NFQ 4	NFQ 5	NFQ 6	NFQ 7	NFQ 8	NFQ 9/10	Total
Junior Certificate	-	55,560	-	-	-	-	-	-	55,560
Leaving Certificate	-	-	57,460	-	-	-	-	-	57,460
FETAC (Major awards)	270	2,500	1,670	17,440	6,900	-	-	-	28,780
Institutes of Technology	-	-	-	-	3,070	7,120	8,520	1,980	20,690
Universities	-	-	-	-	1,720	2,060	17,630	13,200	34,610
Total	270	58,060	76,570	11,690	9,180	26,150	15,180	15,180	197,100

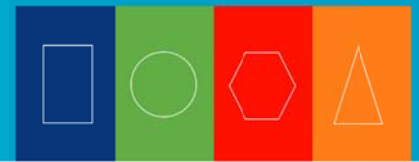
Source: SEC; FETAC; HEA

Table 2 Summary of Further and Higher Education and Training Awards by Field of Education, 2009

Field	NFQ 1-2	NFQ 3	NFQ 4	NFQ 5	NFQ 6	NFQ 7	NFQ 8	NFQ 9/10	Total
General	270	2,280	380	30	-	-	-	-	2,960
Education	-	-	-	-	250	140	1,570	2,630	4,590
Humanities & Arts	-	-	20	2,130	530	1,240	4,810	1,870	10,600
Social Science, Bus.& Law	-	220	400	4,640	1,720	2,460	8,520	4,990	22,950
Science	-	-	-	690	590	910	3,380	1,830	7,400
Engineering & Construction	-	-	80	390	5,320	2,050	2,850	850	11,540
Agriculture & Vet.	-	-	120	890	630	290	270	70	2,270
Health & Welfare	-	-	-	7,300	780	1,040	4,170	2,590	15,880
Services	-	-	680	1,360	1,880	1,050	570	360	5,900
Total	270	2,500	1,680	17,430	11,700	9,180	26,140	15,190	84,090

Source: FETAC (Major Awards); HEA

Note: All data has been rounded; differences between the totals in Tables 1 and 2 are due (a) the exclusion of Junior and Leaving Certificate data in Table 2 and (b) rounding. Private education provider awards have not been included. Data for higher education graduates is from 2008. The total in Table 1 does not include an estimated 10,000 non-FETAC/non-FETAC awards which have recently been placed on the NFQ (e.g. City and Guilds); the output data is not currently available by level and field.



Levels 1 and 2: FETAC made the first awards at these levels in 2008; in 2009, there were 266 awards an increase on the 60 awards made in the previous year.

Level 3: There were 58,056 awards at level 3, the vast majority of which were Junior Certificates (55,557 awards). The number of Junior Certificate sits declined by 1% when compared to 2008. The remaining level 3 awards were made by FETAC, mostly for general programmes.

Levels 4 and 5: Over 76,560 were made in 2009. Of these, 57,455 awards were for the Leaving Certificate (which spans levels 4 and 5 on the NFQ) which is a 3% increase since 2008. FETAC major awards made up the remainder at these levels, most of which were at level 5 and typically for courses in health and welfare (childcare, healthcare support) or business studies. There was a rise of 23% in level 5 major awards when compared to 2008 with increases in most disciplines.

Level 6: Awards at this level totalled 11,687 in 2009 - a fall of 12% since 2008; awards were divided almost equally between the further education and training sector (FETAC major awards) and the higher education sector (IoTs and universities); approximately 45% of level 6 awards were in the field of engineering, manufacturing and construction (including craft awards).

Level 7: There were 9,180 level 7 awards which is a decline of 2% on the preceding year. More than three quarters of these awards were in the IoT sector with the remainder in universities; almost one half of level 7 awards were in the fields of social science, business and law, and engineering, manufacturing and construction.

Level 8: At 26,150 awards in 2008, there has been little change in the number of awards between 2007 and 2008; as in 2007, social science, business and law had the highest number of level 8 awards, followed by humanities and arts.

Levels 9 and 10: postgraduate awards totalled 15,190 representing a 4% rise since 2007; one third of postgraduate awards were in education (mostly for postgraduate cert/diplomas); more than one half were for master degrees; 37% were for postgraduate certs/diplomas with the remaining 7% at doctoral level.

Part-Time Awards

Tables 1 and 2 in the preceding section include the awards that were made to part-time students (including distance learning students). Table 3 provides the number of awards made to part-time students in higher education, by level for 2007 and 2008. The share of part-time awards as a percentage of the total awards is also provided. Overall, more than a fifth of all awards in 2008 went to part-time students - an increase of two percentage points on the preceding year; while the share of part-time awards remained stable for level 8, all other levels showed increases, particularly at level 6, where part-time students went from a third to over a half of the total.



Table 3 Part-Time Awards in Higher Education (HEA Funded institutions)

Higher Education Level	2007		2008	
	Part-time Awards	% of Total Awards at this Level	Part-time Awards	% of Total Awards at this Level
NFQ 6	2,200	34%	2,600	54%
NFQ 7	2,600	28%	2,900	31%
NFQ 8	2,100	8%	2,000	8%
NFQ 9/10	4,600	31%	4,900	33%
Total (NFQ 6-10)	11,500	20%	12,400	22%

Source: HEA

Note: Numbers have been rounded

Future Outlook

Primary and Post-primary Level

The increase in the number of births observed in Ireland since the mid-nineties will have an impact on the numbers enrolling in primary and post-primary level education in the coming years. The DES projects that the number of primary school enrolments will grow from approximately 505,600 in 2009 to 569,600 by 2018 - a 12% rise over the ten year period. At second level, the number of enrolments is also expected to increase over the same period, reaching 334,500 by 2018 - a 7% rise (+22,300 students). This growth in primary and post-primary enrolments will lead to rises in the number of Junior Certificate candidates and continued growth in the number of Leaving Certificate candidates in the coming years.

Further Education and Training (FET)

Two of the most important further education and training (FET) pathways, in terms of numbers, are Post Leaving Certificate (PLC) courses and FÁS apprenticeships². Enrolments and registrations for certain types of FET are frequently a response to economic conditions and participation patterns are more likely to fluctuate as economic activity changes. Future trends in PLC courses enrolments and new registrations for FÁS apprenticeships (FÁS projections relate to construction trades only) are therefore more difficult to predict.

The inflows to PLC courses have been increasing since 2007 and the DES projects that total enrolments are not expected to fall below their current level of 38,500 in the medium term. The

² There is also an increasing share of older learners returning to further education and training who are not captured in the PLC and apprenticeship data but who are examined in further detail in Chapter 5.



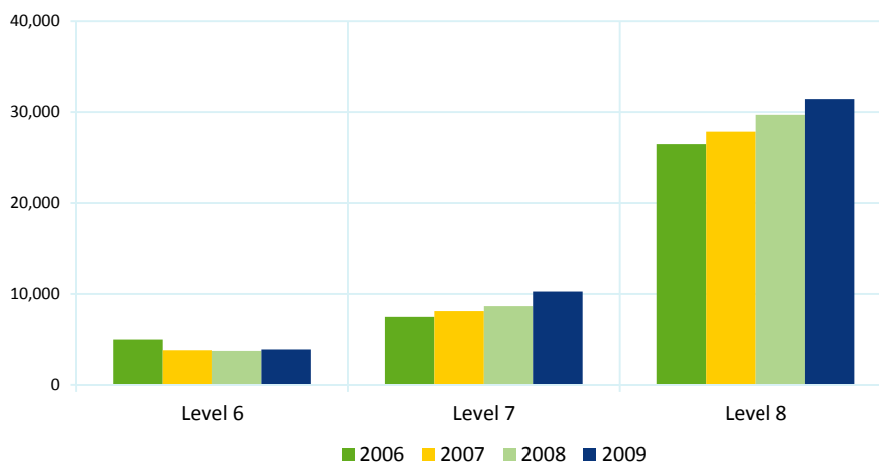
number of new registrations for FÁS apprenticeships, however, has fallen by more than three quarters since 2006 - a reflection of the downturn in the construction industry. Although a recovery is expected in some apprenticeships in the short-term, the total number of new registrations will fall well short of the 2006 peaks.

Higher Education and Training

Between 2009 and 2018, the total number of full-time students enrolled in higher education (at undergraduate or postgraduate level) is expected to increase by almost one third, going from 155,000 to almost 204,000 over the ten-year period to 2018 (DES: 2010).

Figure 1 shows the number of CAO acceptances by NFQ level for the period 2006-2009. Almost 45,600 students accepted a place in higher education in 2009 - a 17% increase since 2006 and an 8% rise since 2008. Rising participation rates in higher education combined with increasing numbers of Leaving Certificate sats should ensure further growth in CAO acceptances numbers (and subsequently graduate output) in the coming years. However, the popularity of level 6 courses among school leavers has declined somewhat and, despite a small rise in 2008-2009, the number of CAO acceptances for these courses has fallen by almost a fifth to less than 4,000 in 2009.

Figure 1 CAO Acceptances 2006-2009



Source: CAO

Focus on Science and Technology Skills

This section focuses on the current and future trends affecting the supply of skills to the technology sector. Education outflows from science, computing and engineering disciplines are examined.

Entry to science and technology-related courses in Irish higher education often requires minimum competencies in mathematics. Table 4 shows that of the 51,900 mathematics candidates in the



2009 Leaving Certificate (all levels), 91% achieved at least a D grade. Higher level candidates accounted for 16% all mathematics sittings in 2009.

Table 4 Number and Share of Students with \geq D grades in Leaving Certificate Mathematics by Level, 2009

Mathematics Level	% of Total Sits	Number of Students with \geq D	% of Students with \geq D
Higher	16%	8,145	97%
Ordinary	72%	33,414	90%
Foundation	12%	5,896	95%
Total	100%	47,455	91%

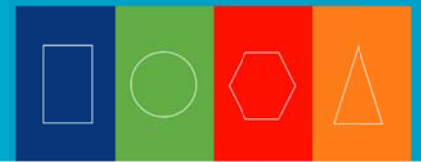
Source: State Examinations Commission

Higher Education

Undergraduate (NFQ 6-8)

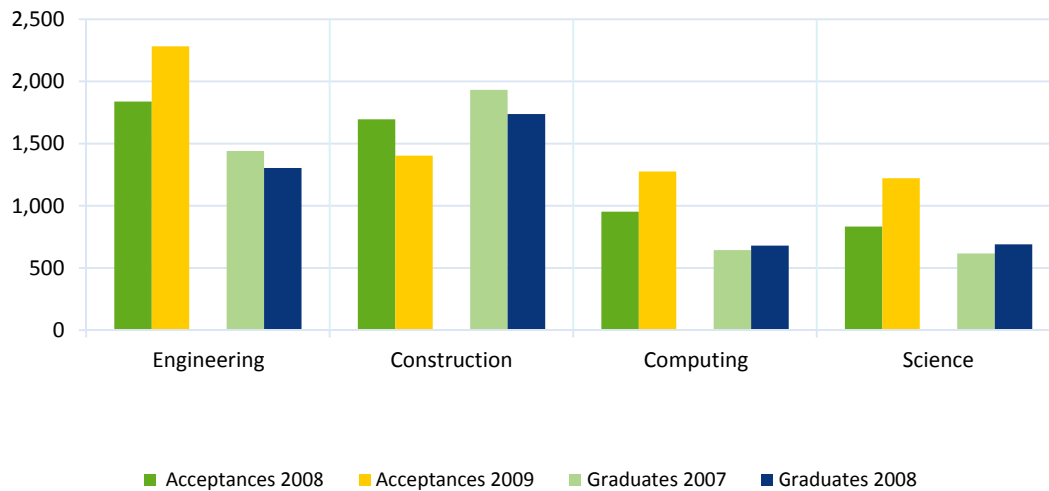
Figures 2 and 3 show the inflows (CAO acceptances) and outflows (graduate output) for science and technology programmes in Irish higher education.

- Engineering:** CAO acceptances increased across all levels between 2008 and 2009; the decline in graduate output at level 8 that occurred between 2006 and 2007 seems to have halted in 2008 and may even be reversed in the medium term due to the 16% rise in CAO acceptances for this discipline over the period 2008-2009.
- Construction:** Following the downturn in the construction sector, courses in construction experienced significant declines in acceptances across all levels in 2009; while graduate output at level 6 declined between 2007 and 2008, it continued to grow at levels 7 and 8; however, declines in graduate output are likely at all levels in the short-medium term due to the fall-off in CAO acceptances.
- Computing:** CAO acceptances increased significantly at levels 7 and 8 in 2009. There were small increases in graduate output at levels 6 and 7 and while graduate output at level 8 declined by 11% year-on-year, it was not as severe as the previous year (20%). The growth in CAO acceptances observed in recent years indicates that a reversal of this trend is likely in the short-medium term.
- Science:** CAO acceptances increased across all levels between 2008 and 2009, particularly at levels 7 and 8. Graduate output at level 8 increased by 10% in this discipline between 2007 and 2008, reversing the downward trend of previous years; the 40% increase in the number of CAO



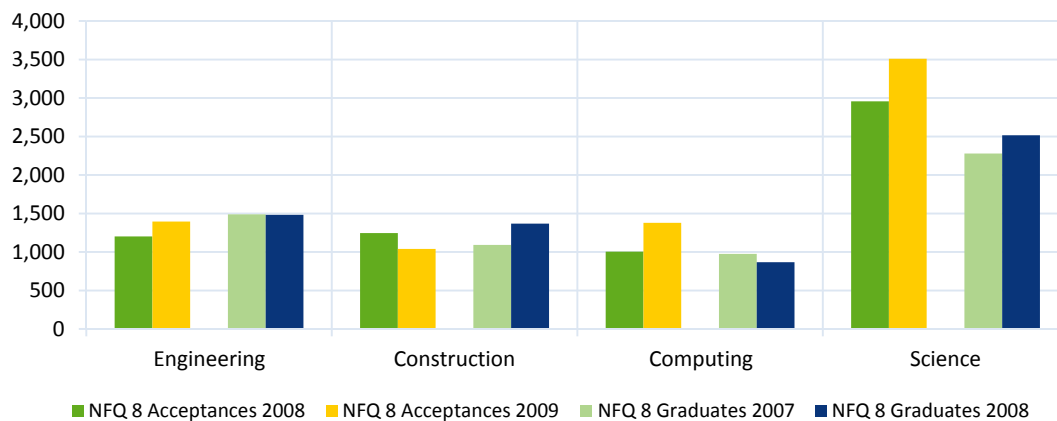
acceptances between 2006 and 2009 indicates that this upward trend is likely to continue into the medium term.

Figure 2 Level 7/6 Science & Technology CAO Acceptances and Graduate Output



Source: CAO; HEA

Figure 3 Level 8 Science & Technology CAO Acceptances and Graduates



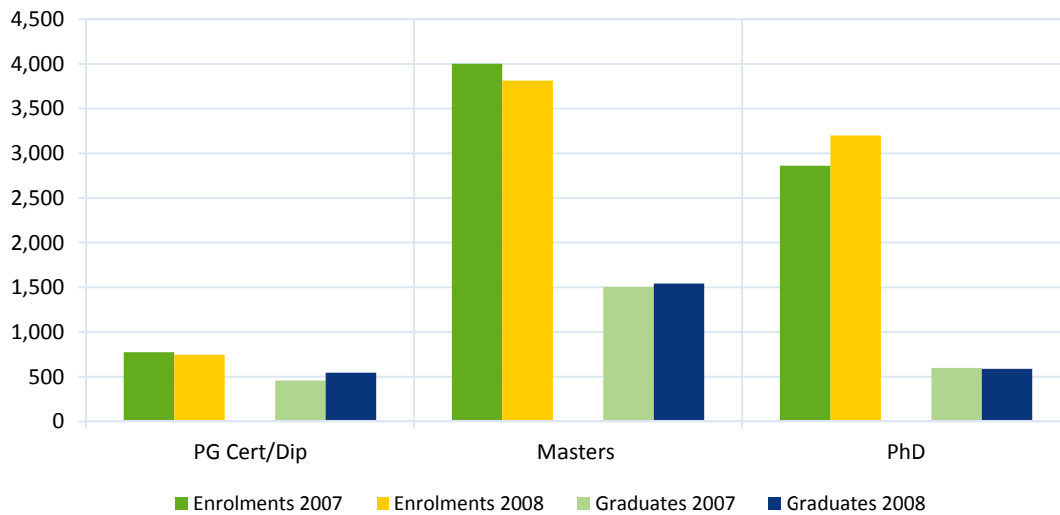
Source: CAO; HEA

Postgraduate (NFQ 9/10)

The inflows and outflows from science and technology programmes at postgraduate level are presented in Figure 4.



Figure 4 Level 9/10 Science & Technology Enrolments and Graduates



Source: HEA

- Postgraduate Certs/Diplomas:** Between 2007 and 2008, enrolments declined by 4%; this is likely to halt the growth in graduations at this level in the short-term. Enrolments declined for all disciplines within this category except construction which saw a 15% rise, chiefly for architectural programmes.
- Masters:** Technology enrolments overall declined by 5% and may indicate that further growth in master's level output is unlikely in the short-term. However, computing enrolments grew slightly over the period (by 3%) which may in turn lead a continuation of the increased graduate output observed for computing courses between 2007 and 2008.
- PhD:** More than one half of all enrolments in this category are for technology programmes; enrolments increased for all science and technology related subjects over the period 2007-2008 which should lead to further growth in the number of PhD awards in the medium term.



Chapter1 Introduction

1.1 Description

This chapter outlines the Irish education system. While the focus is on the formal education system, it is important to remember that life long learning and mature-entry (age 23+) are also significant education routes occurring alongside the formal education system.

As illustrated in Figure 1.1, the formal education system consists of four interlinked sectors: primary, secondary, further education and training (FET) and higher education. Primary school in Ireland is compulsory from the age of six years but many children begin at the age of 4-5 years. Pupils normally spend eight years in primary school after which they proceed to second level education, typically at the age of 13 years.

Second level education usually lasts five to six years and is divided into the junior cycle (three years duration) and the senior cycle (two years). Some pupils also undertake the Transition Year Programme - a one year programme which aims to act as a bridge between the junior and senior cycles. Secondary school students sit two State examinations, the Junior Certificate and the Leaving Certificate, which take place at the end of the junior cycle and senior cycle respectively. Although compulsory education ends at 16 years, the majority of second level students complete the Leaving Certificate, usually at about the age of 18 years. In addition to typical school-age candidates, various schemes, such as the Vocational Training Opportunities Scheme (VTOS) and the Back to Education Initiative (BTEI) cater for re-entrants to education wishing to sit the State Examinations at Junior and Leaving Certificate level³.

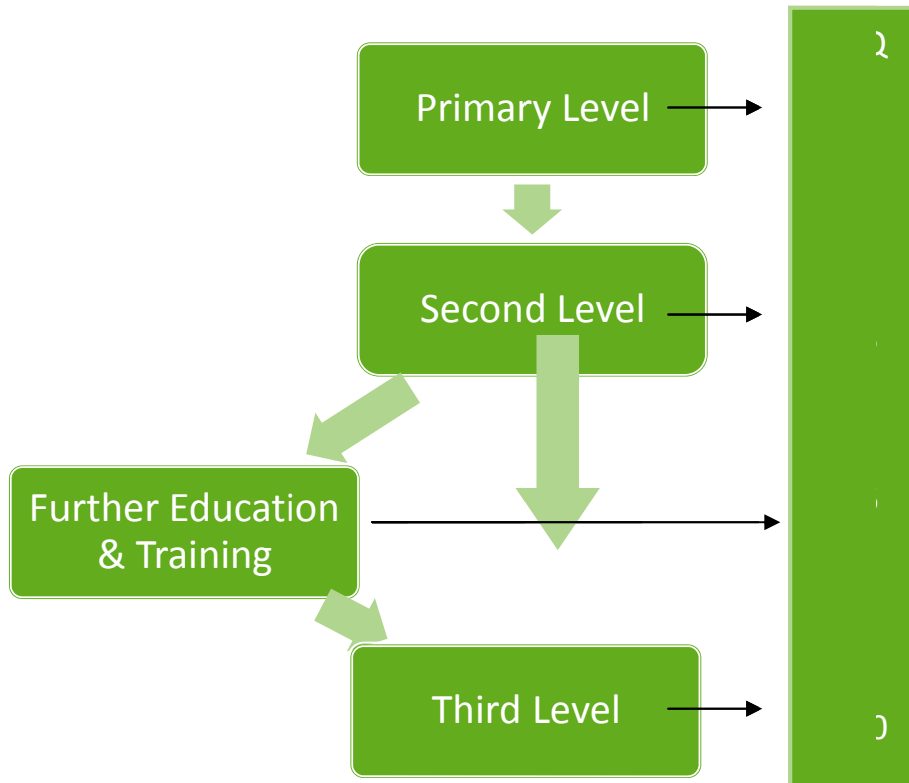
On completing second level education, school leavers who wish to continue studying have a number of options. They may enter the further education and training sector and follow technical or vocational training leading to a specific career (this includes apprenticeships and post leaving certificate courses). Further education and training awards may also lead to progression to higher education. Courses in basic literacy, numeracy and adult education are also provided within the further education and training sector.

School leavers and holders of further education and training awards (e.g. a FETAC award) may enter higher education and pursue courses at either an institute of technology or university (including colleges of education). Higher education at undergraduate level can last from two years (leading to a higher certificate award) to three or four years in order to obtain an honours bachelor degree. Postgraduate education then follows and may range from one year for postgraduate certificates and diplomas, higher diplomas and taught masters degrees to three or more years for a doctoral qualification.

³ Participants in these schemes may also opt to pursue other study options, including courses that lead to a FETAC qualification.



Figure 1.1 Formal Irish Education System by NFQ Level



1.2 National Framework of Qualifications

The National Framework of Qualifications (NFQ) was introduced in 2003 and implemented thereafter following an extensive consultation process with all of the national key stakeholders. The framework is defined as 'a single, nationally and internationally accepted entity, through which all learning achievements may be measured and related to each other in a coherent way and which defines the relationship between all education and training awards'. The NFQ is based on standards of knowledge, skill and competence. The structure of the framework is based on levels which are outlined in Table 1.1 and further detailed in Appendix A.

Each level has a specified level indicator which is a broad description of the learning outcomes at a given level in terms of eight sub-strands of knowledge, skill and competence (these level indicators are outlined in Appendix B). At each level of the framework there are one or more award types. An award type is described as a class of named awards which share common features and level. Each award type has its own award type descriptor. The National Qualifications Authority of Ireland (NQAI) has the responsibility of setting and developing these level indicators and award type descriptors. At each level in the framework there will be at least one award type. Each award type will have a range of named awards.



It is the responsibility of the awarding bodies (for example, HETAC, FETAC, the universities, institutes of technology, and the State Examinations Commission) to develop the named awards. The former and existing awards now placed on the ten-level framework are outlined in Appendix A.

Table 1.1 National Framework of Qualifications

NFQ Level	Awards
Level 1	Level 1 Certificate
Level 2	Level 2 Certificate
Level 3	Level 3 Certificate, Junior Certificate
Level 4	Level 4 Certificate, Leaving Certificate
Level 5	Level 5 Certificate, Leaving Certificate
Level 6	Advanced Certificate, Higher Certificate
Level 7	Ordinary Bachelor Degree
Level 8	Honours Bachelor Degree, Higher Diploma
Level 9	Master's Degree, Post-Graduate Diploma
Level 10	Doctoral Degree

Source: National Qualifications Authority of Ireland

1.3 Awarding Bodies

The standards for school awards are set through a combination of the work of the National Council for Curriculum and Assessment and the State Examinations Commission with the approval/agreement of the Department of Education and Science (DES)⁴. The State Examinations Commission is the body responsible for the certification of the Irish state examinations at post-primary level, namely the Junior Certificate and the Leaving Certificate. The State Examinations Commission is a relatively new body, established in 2003 when it assumed responsibility for the operation of the State Certificate Examinations from the Department of Education and Science.

⁴ In 2010, the Department of Education and Science was renamed as the Department of Education and Skills. However, in this report, we refer to the Department of Education and Science as the data and publications cited date from the period when the Department was the Department of Education and Science.



The Further Education and Training Awards Council (FETAC) has been the body responsible for making awards in Further Education and Training since its inception in 2001. Prior to 2001, a range of other bodies performed this function, e.g. FÁS, the National Council for Vocational Awards (NCVA), Fáilte Ireland, Bord Iascaigh Mhara (BIM) and Teagasc.

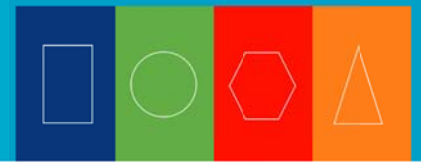
The Higher Education and Training Awards Council (HETAC) has responsibility for making awards for higher education courses completed in the institutes of technology and higher education institutions outside the university sector (e.g independent colleges). The Institutes of Technology (IoTs) have delegated authority from HETAC to make their own awards although in some colleges the authority may be limited to certain award types with HETAC making the remainder of the awards.

Universities and the Dublin Institute of Technology act as their own awarding authorities. The NQAI are also in the process of aligning qualifications from UK education and training awarding bodies that deliver courses in Ireland with the NFQ.

1.4 Education Data Collection

The education data in this report was gathered from a variety of sources:

- Central Statistics Office (CSO) provided demographic data and data relating to the education attainment of those in the workforce
- The State Examinations Commission (SEC) provided data on Junior Certificate and Leaving Certificate examination candidates and results
- The Department of Education and Science (DES) provided school enrolment data, PLC course enrolment data and higher education enrolment data for the institute of technology sector for the period 2005-2006
- The Central Applications Office (CAO) supplied data regarding applicants to higher education and their course choice acceptances
- The Further Education and Training Awards Council (FETAC) provided the data relating to awards made to candidates undertaking further education and training
- The Higher Education Authority (HEA) supplied data on enrolments and graduation at institutes of technology (IoTs) and universities for 2007 and for universities for 2005-2006
- Individual IoTs and HETAC provided graduation data for the institute of technology sector for the period 2005-2006
- The Higher Education and Training Awards Council (HETAC) and individual professional institutes supplied data on the numbers qualifying from private education pathways
- The UK based Universities and College Admission service (UCAS) and the Higher Education Statistics Association (HESA) provided data pertaining to Irish students in the UK
- The OECD Education online database was the source of international higher level graduation data.



This report focuses on the most recent data available; 2009 data was available for Junior and Leaving Certificate numbers, CAO application data, and FETAC awards data; the latest available year for higher education data was 2008 (2007 for OECD data). Data from private/independent providers of professional and higher education was available for 2009.

1.5 Report Structure

The report is structured as follows. Chapter 2 presents key demographic data relevant to the anticipated inflows to the Irish education system at each level. The educational attainments of students at Junior Certificate and Leaving Certificate levels are presented in Chapters 3 and 4 respectively. Chapter 5 examines awards data from the Further Education and Training sector. Three chapters, 6, 7 and 8 are devoted to higher education: Chapter 6 focuses on the number of CAO acceptances, enrolments and graduates for undergraduate higher education (i.e. NFQ levels 6, 7 and 8) while Chapter 7 is devoted to postgraduate (NFQ 9 and 10) higher education; Chapter 8 examines what third level graduates do on completion of their studies. Chapter 9 provides an overview of the skills emerging from the private education sector. Finally, the number of Irish-resident students pursuing education in other countries is presented in Chapter 10.



Chapter 2 Demographic Profile

Key Points

- In 2009, the number of births in Ireland reached approximately 74,000 - a slight decline on the record high of 75,000 observed in 2008
- Inflows to the education and training system continue to grow across all sectors
- Junior infant enrolments grew by 3% between 2007 and 2008
- Junior cycle (1st year) grew by 3% between 2008 and 2009
- PLC course enrolments (1st year) rose by 15% between 2008 and 2009
- New entrants to higher education rose by 8% between 2007 and 2008
- Enrolment projections by the Department of Education and Science shows that compared to 2009:
 - the total number of primary school students will grow by 12% to reach 569,600 by September 2018
 - post-primary school enrolments will also increase significantly to reach 334,500 by 2018
 - the number of full-time students in higher education will reach 204,000 by 2018
- Almost three quarters of new entrants to higher education were aged 19 years or less.

2.1 Introduction

This chapter presents the demographic information relevant to the education system at key stages. An examination of demographic trends provides an indication of the number of students entering the education system since the size of younger age cohorts (4-5 year olds; 12-13 year olds and 16-19 year olds) will, in part, determine the size of the school-going population in the years to follow. It should be borne in mind that any changes in the migratory patterns of the relevant cohorts (school going children and women of child bearing age) which could occur during the recession will have implications for enrolments at all levels of the education system in the medium term. The direction and size of the net effect of migratory flows is unclear at this point.

The first section examines the number of births in Ireland in the 15 year period 1995-2009; this is followed by an analysis of trends in the inflows (actual and projected) at primary, post-primary, selected further education and training (FET), and higher education level.

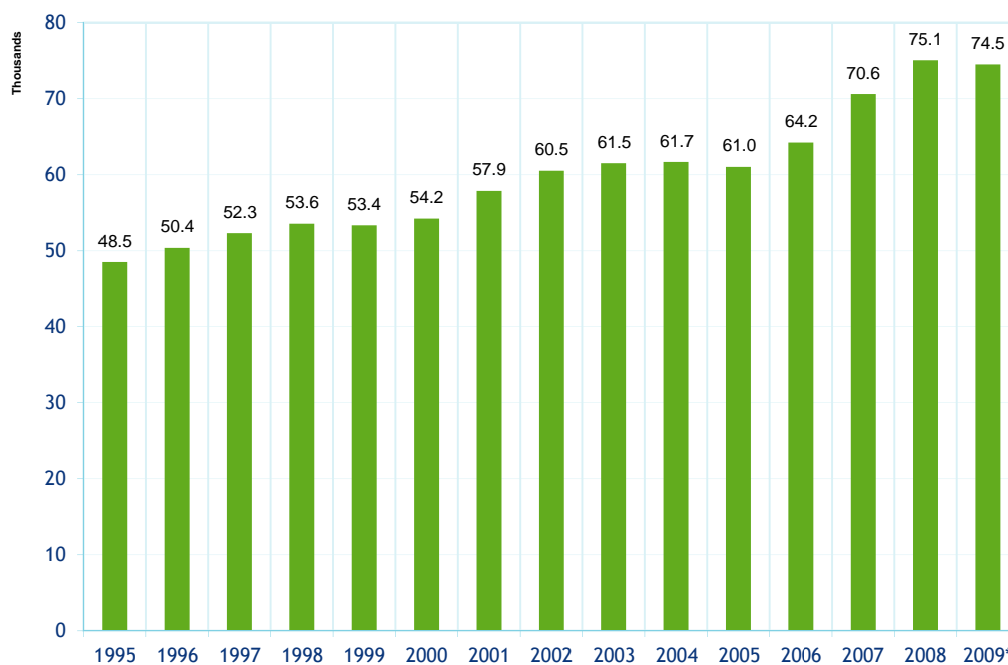


2.2 Births

The total number of births in Ireland for the period 1995-2009 is provided in Figure 2.1. The number of children born each year is an indicator of the pool of children available to enter the education system at various levels in subsequent years. The information on births provided here relates only to children born in Ireland but the school-age population is also affected by the net migration of young people to and from Ireland, e.g. children of migrating Irish citizens and the children of EU and non-EU nationals living in Ireland.

The number of births recorded in Ireland has, for the most part, increased steadily over the fifteen year period 1995-2009. The number in births in 2008, at approximately 75,000, was the highest on record since 1896. Despite a slight decline to 74,500 in 2009, the number of births was nonetheless 54% greater than in 1995. The particularly sharp increase in 2007 and the sustained higher number of births since then will have implications for junior infant enrolments from 2011 onwards given that on average children enter the primary school education system at the age of 4 or 5 years.

Figure 2.1 Number of Births in Ireland 1995-2009



Source: CSO

Note: data for 2009 is preliminary only



2.3 Primary and Post-Primary

2.3.1 Inflows

Junior infant (first year primary school) enrolments have been mostly increasing since 2000 and the rises in the number of births suggests that these increases will continue in the medium term; this will be particularly evident from 2011 due to the 6,400 additional births observed between 2006 and 2007 (see Figure 2.1), assuming migratory flows do not have a negative effect.

As detailed in Table 2.1, the number of Junior Cycle entrants was largely in decline until 2006, apart from a small increase in 2003. The number of junior cycle entrants began to increase in 2007 and, given the increases in the number of births and primary school enrolments, it is expected that the increases in those commencing second level education will continue in the medium term. In September 2009, the number of Junior Cycle entrants reached its highest point since 2000.

Table 2.1 New Entrant Enrolments in Primary and Post-Primary Schools, 1996-2009

Year	Junior Infants	% Change	Junior Cycle Entrants	% Change
Sep-96	55,315	-	64,663	-
Sep-97	52,944	-4%	62,658	-3%
Sep-98	51,858	-2%	61,682	-2%
Sep-99	51,946	0%	61,230	-1%
Sep-00	52,643	1%	59,650	-3%
Sep-01	55,236	5%	56,674	-5%
Sep-02	56,520	2%	56,825	0%
Sep-03	57,054	1%	57,700	2%
Sep-04	56,591	-1%	57,227	-1%
Sep-05	58,458	3%	55,599	-3%
Sep-06	61,411	5%	55,237	-1%
Sep-07	63,252	3%	56,228	2%
Sep-08	65,360	3%	57,240	2%
Sep-09	Unavailable		59,236	3%

Source: DES

2.3.2 Projections (Primary and Post-Primary Entrants)

This section outlines some of the findings from the report 'Projections of Full Time Enrolment at Primary, Second and Higher Level, 2009-2030', published by the DES in February 2010. While a number of possible scenarios (produced by the Central Statistics Office) were considered by the

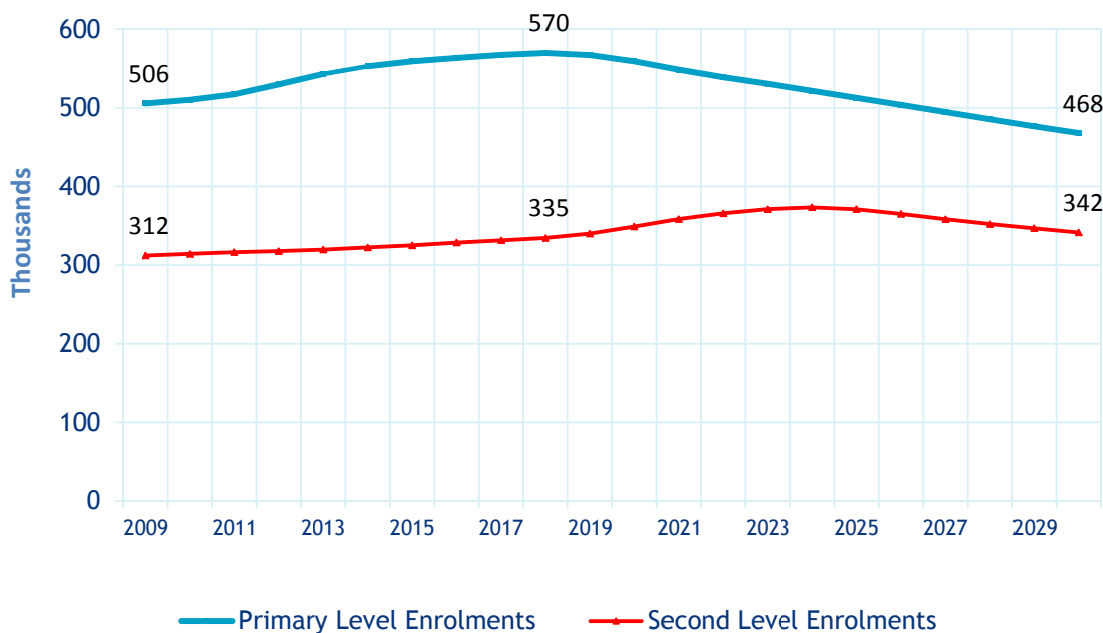


DES, all of which were based on continuing high levels of fertility (F1*)⁵, that which assumed zero migration (M0) was deemed the preferred scenario by the DES. This was based on the fact that DES statistics indicate that since the beginning of the current recession there have been almost equal numbers leaving or joining schools at primary level as a result of family migration. For the projections of second level enrolments, the same fertility and migration assumptions were used but the preferred scenario also factored in a rise in Leaving Certificate retention to 85% by 2012 and remaining constant thereafter⁶.

Figure 2.2 shows the projections of full-time enrolments at primary and second level over the period 2009-2030 under the M0F1* scenario. Provisional data indicates that there were approximately 505,600 pupils enrolled at primary level in September 2009. Over the next ten years, this number is expected to increase by 12% to reach 569,600 by September 2018. Thereafter, primary school enrolments are projected to decline to below their 2009 level by 2026.

At second level, the number of enrolments (excluding students enrolled on Core VTOS programmes), which for September 2009 was provisionally estimated at 312,200, is expected to grow annually until 2025. Over the ten-year period 2009-2018, the number of second level enrolments is projected to grow by over 7% (+22,300 students) to reach 334,500.

Figure 2.2 Enrolment Projections (M0F1*) at Primary & Second Level, 2009-2030



Source: DES (2010)

⁵ F1* corresponds to the 2007 level of Fertility (=2.0) and is close to F1 or the 2006 level (=1.9) used by the CSO in their 2008 projections release

⁶ Leaving Certificate retention rates were based on the findings of the DES publication (2009) *Retention Rates of Pupils in Second Level Schools, 1999-2001 Entry Cohorts*.



2.4 School Leavers

2.4.1 Inflows to Higher Education & Selected FET

On completion of second level education, school leavers have a number of options: they may enter higher education, undertake FET (e.g. post Leaving Certificate courses, state sponsored training programmes) or enter the workforce. The School Leavers' Survey Report 2007 (ESRI: 2009) estimated that of those who completed the Leaving Certificate in 2005, 60% entered higher education and a further 25% entered some form of FET. This section looks at the flows into higher education and selected pathways in FET, namely post Leaving Certificate courses (PLC) and FÁS training programmes (including apprenticeships). It should be noted that there are other education routes (e.g. Fáilte Ireland, Teagasc, or Bord Iscaigh Mhara training, among others).

Table 2.2 shows the number of new entrants to higher education by age for September 2007 and 2008. In the academic year 2008/09, almost 39,000 people were new entrants to higher education, the majority of whom (almost three quarters) were aged 19 years or less - the age corresponding to typical school leaving age in Ireland. Although the numbers of mature students entering higher education for the first time increased by 14% (586 additional students) between September 2008 and September 2009, their share remained constant at 12%.

Table 2.2 New Entrants to Higher Education by Age, 2007/2008 and 2008/09

Age	2007/08	2008/09	% Difference
< 17	2,865	2,808	-2%
18	13,279	14,405	8%
19	10,699	11,487	7%
20	3,068	3,306	8%
21	1,272	1,386	9%
22	573	654	14%
Total <23 yrs	31,756	34,046	7%
Total > 23 yrs	4,196	4,782	14%
Total New Entrants	35,952	38,828	8%

Source: HEA (08/09 Higher Education Key Facts and Figures)

Table 2.3 provides shows the inflows into selected FET (PLC and FÁS courses) for the period 2000-2009⁷. The data shows that between the years 2000 and 2009 the number of first year PLC enrolments grew by more than a half (an additional 11,500). A large share of this growth occurred between 2007 and 2009, bringing the total number of first year enrolments in 2009 to 32,400.

In contrast, the number of new registrations for FÁS apprenticeships declined over the period 2002-2009, going from 8,066 to 1,532. The bulk of the decrease occurred between 2006 and 2009 with an

⁷ PLC data is per academic year; FÁS data is per calendar year.



82% decline over the three years. This fall in new registrations coincides with the sharp downturn in the construction industry in which a significant number of apprentices were employed. (Apprenticeship registrations are more an indicator of skills demand than skills supply as recruitment is employer driven, i.e. individuals must be in employment in order to register as apprentices.)

The number of new starts on FÁS training programmes (including traineeships, specific skills courses, etc.) grew by almost one third between 2002 and 2009 reaching in excess of 35,300 in 2009 - the highest number over the period.

Table 2.3 PLC Course Enrolments (1st year), FÁS Apprenticeship New Registrations and FÁS New Starts (Other Training Programmes), 2000-2009

Year	1st Year Enrolments	FÁS New Registrations (Apprenticeships)	FÁS New Starts (Other Training Programmes) ⁸
2000	20,883	8,066	n/a
2001	21,765	7,796	n/a
2002	23,205	6,935	26,669
2003	23,801	7,343	22,338
2004	23,288	8,249	25,028
2005	22,508	8,310	26,822
2006	24,942	8,318	23,971
2007	24,572	6,767	25,009
2008	28,160	3,764	24,972
2009	32,401	1,532	35,316

Source: DES and FÁS

2.4.2 Enrolment Projections (Higher Level)

The DES projections⁹ are based not only on estimates of demographic change but also on increased participation in higher education among the Leaving Certificate cohorts as well as additional 'mature students' (aged 23+). The scenario presented by the DES is provided in Figure 2.3 and is based on a number of assumptions, including:

- a continuing high level of births (F1*)
- zero net migration (M0)
- 85% retention at second level by 2012
- 70% Leaving Certificate entry rate (i.e. the share of Leaving Cert candidates transferring to higher level on completion of the Leaving Certificate)

⁸ Includes the following programme types: Bridging Foundation, Community Training Workshops, Linked Work Experience, Return to Work, Specific Skills Training, Traineeship, Job Training Scheme, Community Training, Specialist Training Agencies the data excludes evening courses and work sponsored training.

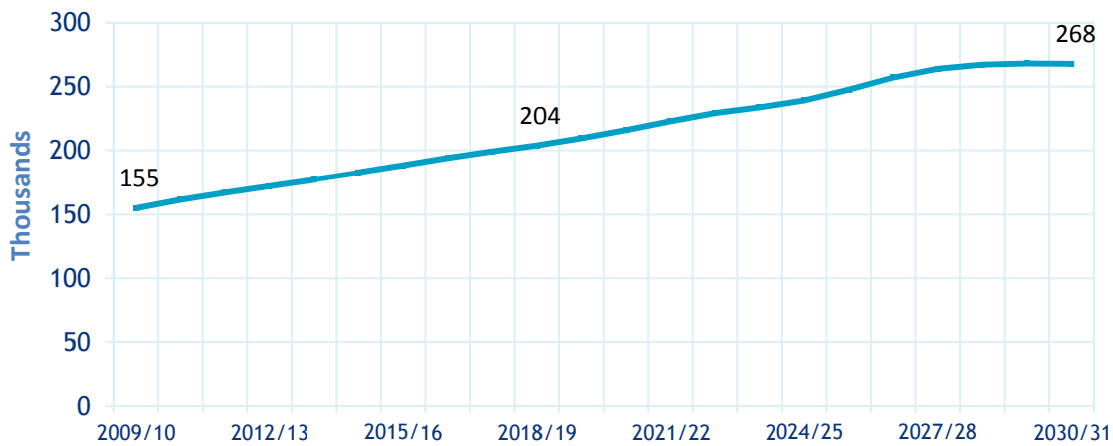
⁹ Projections of Full Time Enrolment at Primary, Second and Higher Level (DES: 2010)



- further increases in the proportion of mature students (from 13%¹⁰ in 2009, to 19% in 2016 and 25% in 2022)
- an increased growth in higher education entrants from outside the State.

Between 2009 and 2018, the total number of full-time students enrolled in higher education (at undergraduate or post-graduate level) is expected to increase by almost one third, going from 155,000 to almost 204,000 over the ten-year period to 2018. Enrolment is expected to continue to increase for most of the remainder of the projection period, with a slight fall-off occurring between 2029 and 2030 (approximately 300 fewer students).

Figure 2.3 Enrolment Projections (MOF1*) at Higher Level (State Aided Institutions) 2009-2030



Source: DES (2010)

2.4.3 Selected FET Enrolment/Registration Projections

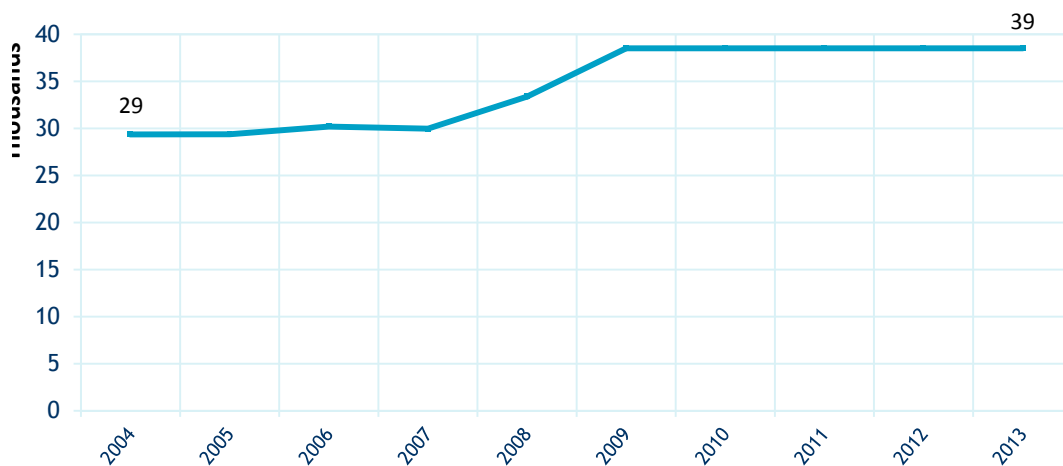
Enrolments and registrations for certain types of FET are frequently a response to economic conditions and participation patterns are more likely to fluctuate as economic activity changes. Future trends in PLC courses enrolments and new registrations for FÁS apprenticeships are therefore more difficult to predict. As such, the projection periods for FÁS apprenticeships and PLC course enrolments are necessarily much shorter, going as far as the academic year 2013/2014 for PLC enrolments and to 2013 for FÁS apprenticeship new registrations (FÁS projections relate to construction trades only).

The DES, working with the technical assumption that future trends will remain at the 2009/2010 level, estimates that total number of students (not just first years) enrolled on PLC courses will be 38,500 in 2013 (Figure 2.4).

¹⁰ The figure of 13% mentioned here refers to the total number of those aged 23+ in higher education. They may already have obtained a higher education qualification and then returned to retrain or undertake postgraduate studies. The figure of 12% in Table 2.2 refers to people going to college for the first time only and is therefore slightly smaller.



Figure 2.4 Actual & Projected PLC Enrolments* 2004-2013

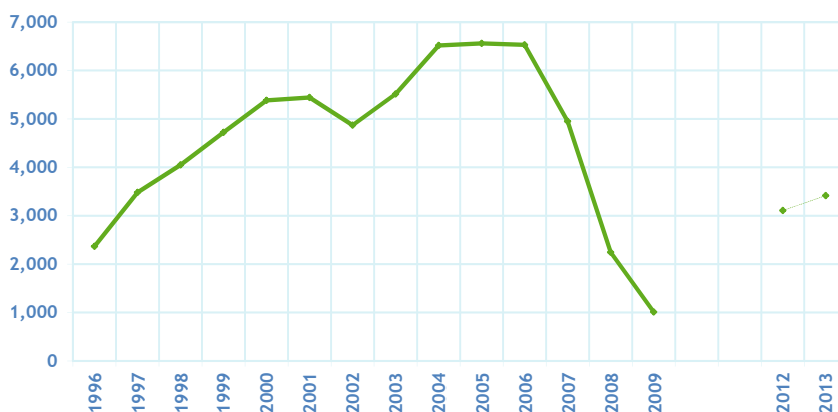


Source: DES

* Assumes M0, F1* and S2 (i.e. 2nd level retention rate to increase to 85% by 2012 and remaining constant thereafter)

Recent apprenticeship forecasts (for the period 2012-2013) by the SLMRU provide estimates of FÁS apprenticeship recruitment for construction trades (carpentry and joinery etc.), as detailed in Figure 2.5. Although increasing from the 2009 level of 1,010, the number of new apprenticeship registrations is nonetheless expected to remain well below the 2006 peak (of 6,530) and to be less than a third of what it was ten years previously, at approximately 3,250¹¹.

Figure 2.5 Annual Intake into Construction-Related Apprenticeships (1996-2009) and Forecast (2012 and 2013)



Source: FÁS

¹¹ Forecasts of Apprentice Intake into Construction-Related Trades: 2012 and 2013 (Shally and McGrath 2009)



Chapter 3 Junior Certificate

Key Points

- The retention rate to completion of the Junior Certificate was estimated at 96.1% for the 2001 cohort
- With a retention rate of 96.8%, females were more likely than males to sit the Junior Certificate (compared to 95.4% for males)
- At over 55,500 in 2009, the number of Junior Certificate sits declined by 1% between 2008 and 2009
- With the exception of French and business studies, students are increasingly sitting the higher level paper in the most popular Junior Certificate subjects
- With the exception of English, the share of students sitting languages declined over the period 2005-2009, going from 89% to 85% (Irish) and from 64% to 60% (French)
- In mathematics, higher level students were more likely than ordinary level students to achieve at least a grade D
- In terms of results, females outperformed males in almost all higher level subjects except geography; the gender gap is widest for languages and religious education.

3.1 Introduction

The focus of this chapter is on the Junior Certificate examination which has been placed at level 3 on the National Framework of Qualifications. Appendix B details the learning outcomes associated with level 3 qualifications. First, a brief description of the Junior Certificate programme and typical candidates is provided. Section 2 of this chapter details the Junior Certificate examination in terms of candidates' subject choices, gender distribution of sits and, in the case of the three key subject areas (English, mathematics and science), candidates' performance.

3.2 Junior Certificate: Candidates and Examination

Students usually sit the Junior Certificate examination on completion of the Junior Cycle which forms the first three years of second level education. Candidates are typically aged 15 years. In a 2009 publication, the DES set out the estimated retention rates to completion of the Junior and Leaving Certificates for students entering the first year of the junior cycle between the years 1991 and 2001¹². Students who were junior cycle entrants in 2001 (the latest year for which data is available) would have been expected to sit the Junior Certificate examination in June 2004.

The DES estimated that 96.1% of all those who entered the Junior Cycle in 2001 sat the Junior Certificate examination, mostly in 2004¹³. This is the highest Junior Certificate retention rate observed over the period 1995-2001, as detailed in Figure 3.1 (the years refer to the year in which

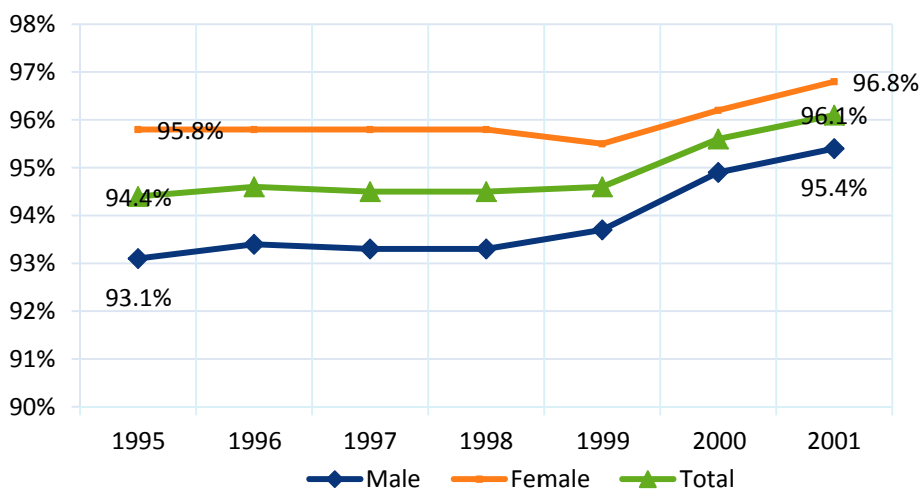
¹² Retention Rates of Pupils in Second Level Schools: 1991 to 2001 Entry Cohorts (DES: 2009).

¹³ The rates cited here are unadjusted for students transferring to non-aided second level schools and other destinations.



pupils entered the junior cycle). As in previous years, the retention rate for the 2001 cohort was higher for females (96.8%) than for males (95.4%). The gap between male and female retention has, however, narrowed since the 1995 cohort (2.7 percentage point difference for the 1995 cohort compared to just 1.4 percentage point difference for the 2001 cohort).

Figure 3.1 Junior Cert Retention Rates (unadjusted), 1995-2001



Source: DES

Candidature for the Junior Certificate examination is not restricted to students enrolled in second level schools. A candidate following an approved course of study outside the State or who is attending an approved course of study organised under the Vocational Training Opportunities Scheme, Adult Literacy and Community Education Schemes and the Department of Social and Family Affairs second-level scheme for the unemployed may also sit the exams.

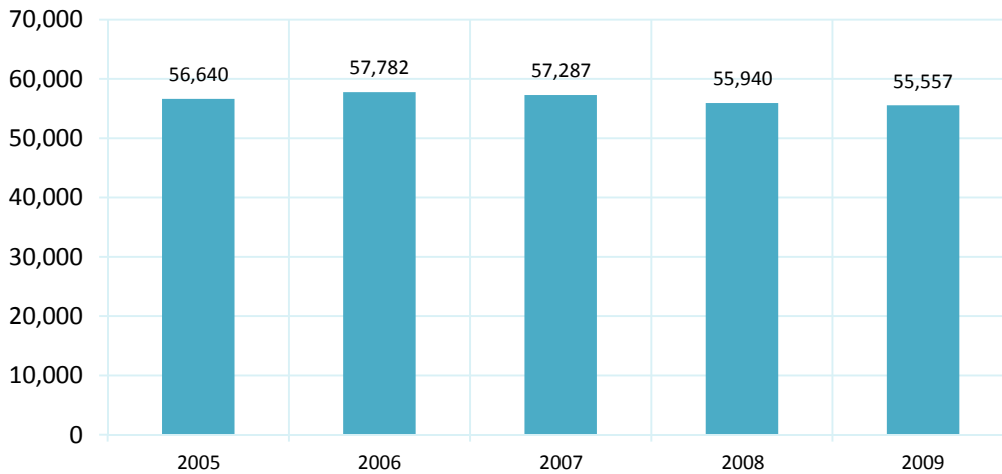
In 2009, Junior Certificate candidates comprised 1,267 re-entrants to education taking the examination through various education schemes including the Vocational Training Opportunities Scheme (VTOS) and the Back to Education Initiative (BTEI). Although the number has fluctuated slightly in the five years between 2005 and 2009 (there were approximately 1,370 VTOS/BTEI candidates in 2005), re-entrants have accounted for approximately 2% of all Junior Certificate sits each year.

Figure 3.2 shows the number of Junior Certificate sits each year for the period 2005-2009. In 2009, more than 55,500 candidates sat the Junior Certificate examination. This is the lowest number recorded over the five year period and continues the downward trend in numbers observed since 2007. Nonetheless, the declines are modest, representing less than a 1% decrease on the 2008 figure and just 2% since 2005 - a cumulative difference of approximately 1,100 sits over the five year period. As the number of junior cycle entrants has been increasing since 2007 (see Table 2.1 in Chapter 2), a reversal of this downward trend is likely to occur in the short-medium term.



At 27,196, there were slightly more male candidates than females; overall, males made up 51% of all Junior Certificate sittings in 2009.

Figure 3.2 Junior Certificate Sits 2005-2009¹⁴



Source: State Examinations Commission

3.3 Junior Certificate Subject Choice and Levels

There are more than 25 different subjects offered in the Junior Certificate examination and candidates normally take between eight and ten subjects. Most subjects are available at higher and ordinary level; in addition, English, mathematics and Irish are available at higher, ordinary and foundation level. Civic, social and political education (CSPE) is available at common level only.

This section examines Junior Certificate candidates' subject choices over the period 2005-2009. First, the total number and share of all Junior Certificate candidates sitting the most popular subjects in 2005 and 2009 are compared. The achievements of students in the key areas of mathematics, science and English are then outlined. A gender breakdown in terms of higher and ordinary level sittings and achievements is also provided.

3.3.1 Top-Ten Subject Choice - Total Sits

Table 3.1 shows the top ten Junior Certificate examination subjects for 2005 and 2009. Almost all candidates sat the Junior Certificate examination in English, mathematics and civic, social and political education (CSPE), due in part to the fact that they are compulsory subjects for most students. In addition, geography and history were taken by at least 90% of candidates in 2005 and 2009.

¹⁴ Data for 2009 is provisional only; data for all other years is from the SEC Annual Reports.



With the exception of science and religious education, the number of students sitting the top ten subjects declined over the time period examined; for most subjects, the decline is largely related to the fall in Junior Certificate sittings that occurred over the five year period.

Over the period 2005-2009, the take-up rates increased for geography, science and religious education. Religious education had the most significant increase, going from 37% to 45% over the five year period. Although there was a two percentage point increase for science compared to 2005, it has remained static at 87% since 2007. In contrast, there was a slight decline in the share of students sitting business studies but a more pronounced decrease for languages (other than English): the take up rates for Irish and French fell from 89% to 85% (Irish) and from 64% to 60% (French).

Table 3.1 Junior Certificate Sits and Take-up Rates by Subject, 2005 & 2009

Subject	2005 Sits	2005 Take-up	2009 Sits	2009 Take-up
English	56,025	99%	54,862	99%
Mathematics	55,813	98%	54,708	98%
C.S.P.E	55,063	97%	54,058	97%
Geography	51,116	90%	50,500	91%
History	50,910	90%	49,891	90%
Science	48,151	85%	48,531	87%
Irish	50,318	89%	47,313	85%
French	36,194	64%	33,134	60%
Business Studies	33,646	59%	32,219	58%
Religious Education ¹⁵	21,251	37%	25,016	45%

Source: State Examinations Commission

3.3.2 Top-Ten Subject Choice - Higher Level Sits

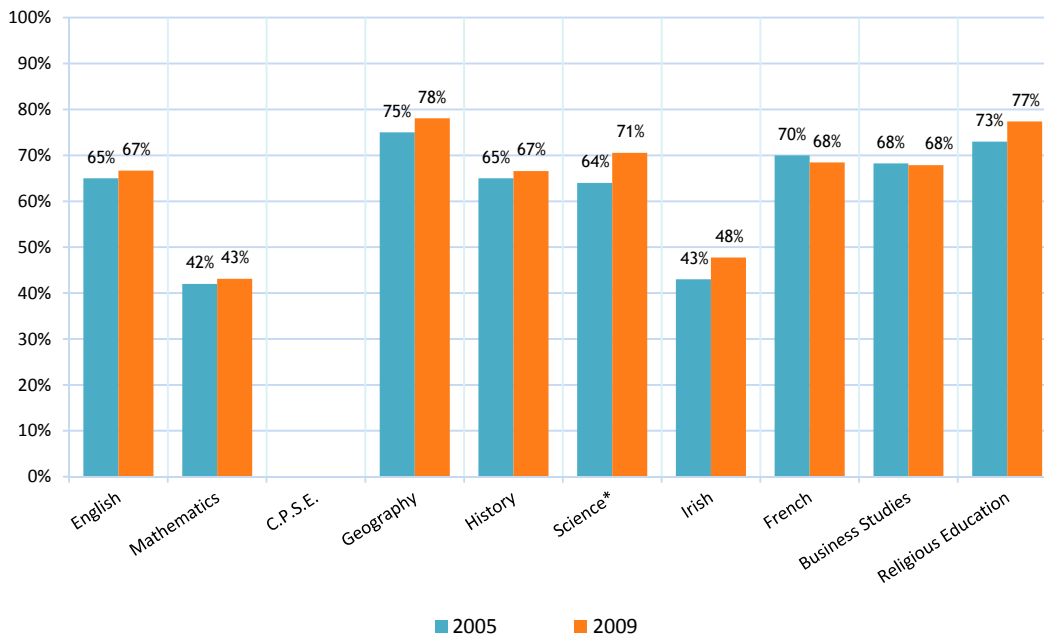
Figure 3.3 compares the higher level participation rates for the most popular Junior Certificate subjects for 2005 and 2009. Junior Certificate students are increasingly opting to sit the higher level paper in the majority of these subjects: with the exception of French and business studies, the share of those sitting higher level papers rose since 2005. (C.S.P.E is not included in the graph as it is offered at common level only.)

With the exception of Irish and mathematics, at least two thirds of candidates took the higher level paper in the most popular examination subjects in 2009. In contrast, less than one half of candidates sat the higher level paper in Irish (48%) and mathematics (43%). Despite these comparatively low shares, however, the higher level participation rate increased by one percentage point for mathematics and by five percentage points for Irish over the five year period 2005-2009.

¹⁵ In 2005, art, craft and design was the tenth most popular subject; this was subsequently replaced by Religious Education. Religious Education is a relatively new Junior Certificate subject, first examined in 2003 and later rolled out throughout the country.



Figure 3.3 Junior Certificate Higher Level Participation Rates 2005 & 2009



* The numbers for science include the Revised Science syllabus, introduced for the first time in the 2006 Junior Certificate examination, and the older 1989 science syllabus

Note: CPSE is available at common level only

Source: State Examinations Commission

3.3.3 English, Mathematics and Scientific Literacy

The focus of this section is on Junior Certificate candidates' performance in English, mathematics and science as these key subject areas are often used as indicators of basic numeracy and literacy skills (e.g. the PISA survey carried out every three years by the OECD).

Table 3.2 compares the performance of higher and ordinary level Junior Certificate students in the key subject areas of English, mathematics and science in 2005 and 2009. The data shows that:

- 98% of candidates in the English examination (at both higher and ordinary levels) gained at least a D grade in each of the years examined
- in mathematics, higher level students were more likely than ordinary level students to achieve a grade D or more (96% compared to 93% in 2009); over the five year period, the share of candidates achieving a pass grade increased slightly at ordinary level (going from 92% to 93%) and remained the same at higher level (96%); foundation level candidates (not included in the Table) had a pass rate of 96%, amounting to 4,972 students in 2009



- science candidates were increasingly likely to take the higher level paper (see Figure 3.3) and were also more likely to obtain a pass grade at both higher and ordinary level: the share of students gaining a D grade or more went from 93% to 96% at ordinary level and from 93% to 98% at higher level over the five year period.

Table 3.2 Junior Cert Student Achievement in English, Maths and Science, 2005 and 2009

Subject	2005 ≥ D	%	2009 ≥ D	%
Higher Level				
English	35,544	98%	35,963	98%
Mathematics	22,371	96%	22,673	96%
Science	28,710	93%	33,543	98%
Ordinary Level				
English	17,332	98%	15,963	98%
Mathematics	24,342	92%	24,026	93%
Science	17,151	93%	13,649	96%

Source: State Examinations Commission

3.3.4 Gender Distribution by Subject Choice 2009

The gender breakdown of higher and ordinary level sits for the most popular Junior Certificate subjects is presented in Table 3.3. At higher level, the gender distribution was balanced for geography, history and science with males and females taking these subjects in almost equal numbers. Females dominate in all other subjects at higher level outlined in Table 3.3 but males were particularly out-numbered in languages (Irish, French and to a lesser extent English) and religious education.

With the exception of business studies, where 52% of candidates were female, ordinary level subjects were taken mostly by males. The gender distribution was closest to balanced for history, geography and mathematics where males made up between 51% and 52% of sits but was particularly skewed towards male participation for English and science where males made up 59% and 58% of sits respectively.

Table 3.3 Gender Breakdown of Higher and Ordinary Level Subjects 2009

	Higher Level				Ordinary Level			
	Male	%	Female	%	Male	%	Female	%
English	17,208	47%	19,366	53%	9,498	59%	6,716	41%
Mathematics	11,560	49%	12,032	51%	13,427	52%	12,503	48%
Geography	19,770	50%	19,656	50%	5,716	52%	5,358	48%
History	16,525	50%	16,696	50%	8,559	51%	8,111	49%
Science	17,252	50%	16,990	50%	8,267	58%	6,022	42%
Irish	9,629	43%	12,963	57%	12,138	55%	9,895	45%
French	10,069	44%	12,618	56%	5,576	53%	4,871	47%
Business Studies	10,076	49%	11,164	51%	5,017	48%	5,332	52%
Religious Education	8,740	45%	10,615	55%	3,146	56%	2,515	44%

Source: State Examinations Commission

3.3.5 Gender Distribution of Junior Certificate Results

The results obtained by males and females in 2009 for the most popular Junior Certificate subjects are presented in Table 3.4 for higher level subjects and Table 3.5 for ordinary level subjects. At higher level, females outperform males in almost all subjects except geography; the difference is most pronounced for languages and religions education with gaps of between eight and twelve percentage points in the shares of males and females obtaining at least a C grade. The smallest gender gap is in mathematics where 77% of males obtained at least a C compared to 78% of females.

At ordinary level, females again outperformed males in the majority of subjects, particularly in languages and business studies; however, a higher proportion of males than females obtained at least a C grade in geography and history.

Table 3.4 Gender Differences in Achievement at Higher Level, Junior Certificate 2009

Higher Level	Males \geq C	% of all males taking this subject	Females \geq C	% of all females taking this subject	Difference (% points)
English	12,078	70%	15,919	82%	12
Mathematics	8,956	77%	9,331	78%	1
Geography	15,233	77%	15,081	77%	0
History	11,375	69%	11,868	71%	2
Science	12,840	74%	13,520	80%	6
Irish	7,176	75%	10,850	84%	9
French	6,530	65%	9,243	73%	8
Business Studies	8,484	79%	9,193	82%	3
Religious Education	7,139	82%	9,640	91%	9

Source: SEC



Table 3.5 Gender Differences in Achievement at Ordinary Level, Junior Certificate 2009

Ordinary Level	Males \geq C	%	Females \geq C	%	Difference (% points)
English	7,124	75%	5,751	86%	11
Mathematics	9,772	73%	9,605	77%	4
Geography	4,514	79%	4,103	77%	-2
History	6,686	78%	6,222	77%	-1
Science	6,474	78%	4,875	81%	3
Irish	8,623	71%	8,150	82%	11
French	3,369	60%	3,211	66%	6
Business Studies	3,686	73%	4,286	80%	7
Religious Education	2,570	82%	2,164	86%	4

Source: SEC



Chapter 4 Leaving Certificate

Key Points

- Students are increasingly likely to complete the Leaving Certificate: the retention rate for the 2001 cohort (exiting in 2007/08) was 81.3% compared to 77.1% for the 1991 cohort
- When adjusted for those transferring to non-State aided education, the retention rate for the 2001 cohort was 84.7%
- At 57,455 sits in 2009, the number of Leaving Certificate sits was higher than at any time over the preceding five years
- With the exception of mathematics and Irish, a majority of students opted to take the higher level paper in Leaving Certificate subjects in 2009
- The take up rate and higher level participation rate for mathematics declined slightly (by 1-3 percentage point) over the period 2005-2009; 16% of mathematics students sat the higher level paper amounting to 8,420 sits
- Biology was the only science related subject which experienced an increase in the take-up rate over the period examined; more than half of Leaving Certificate students sat biology in 2009, 72% of which were at higher level
- Having remained constant at 88% over the period 2005-2008, the pass rate for ordinary level mathematics increased slightly to 90% in 2009.

4.1 Introduction

This chapter focuses on the Leaving Certificate which spans levels 4 and 5 on the National Framework of Qualifications for Ireland. Appendix B details the learning outcomes associated with levels 4 and 5. First, the different types of Leaving Certificate programmes and the candidates who typically sit the examinations are examined. Second, recent Leaving Certificate trends are outlined focusing on three main subject groups: science related subjects, business related subjects and languages; the gender distribution of sits and achievements are also presented. This is followed by the results for the Leaving Certificate Applied programme. The final section of this chapter examines recent trends in the points achievements (the principal means of application and entry to higher level education in the Republic of Ireland) of Leaving Certificate candidates.

4.2 The Leaving Certificate - Examination and Candidates

The Leaving Certificate examination is held at the end of the senior cycle in post-primary school. The vast majority of examination candidates are school students, aged between 16 and 18 years, who have completed five or six years of post-primary education. Every year, the total Leaving Certificate examination candidates include a number of repeat students who are sitting the examination for the second time. In 2009, the total number of repeat students was 2,211 making up 3.8% of all Leaving Certificate sits that year. Following declines each year between 2005 and 2008, the number of repeat students in 2009 rose by almost a quarter (+433) when compared to 2008



bringing the figure to its highest level in four years. In relative terms, the share of repeat students among total Leaving Certificate sittings remains below that observed in 2005 (4.4%), although at 3.8% it was higher in 2009 than at any time since 2006.

Candidates studying outside the formal school system may also take the Leaving Certificate examination. A total of 795 Leaving Certificate candidates were re-entrants to education entering for the 2008 (latest available data) examinations through various education schemes including the Vocational Training Opportunities Scheme (VTOS) and the Back to Education Initiative (BTEI) - a 5% increase on the preceding year.

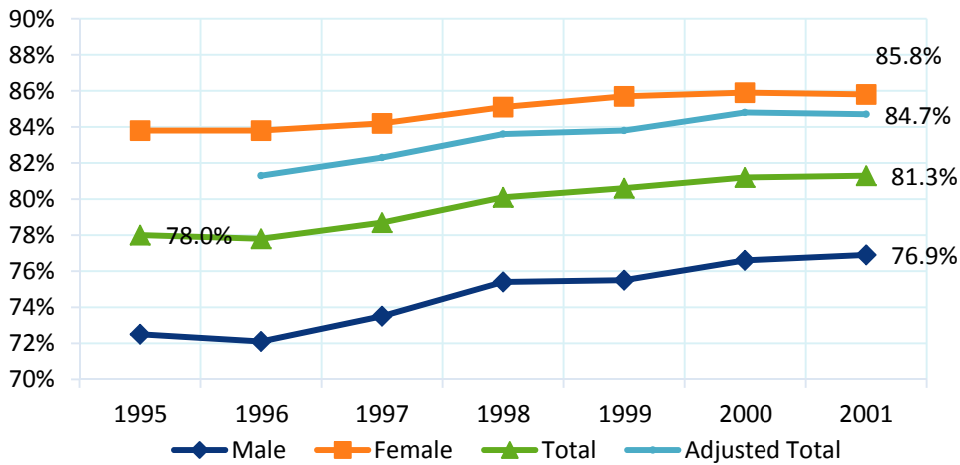
Not all students who enter second level education will complete the Leaving Certificate. In a 2009 publication, the DES set out the estimated retention rates to completion of the Junior and Leaving Certificates for students entering the first year of the junior cycle between the years 1991 and 2001. Students who were junior cycle entrants in 2001 (the latest year for which data is available) would have been expected to sit the Leaving Certificate examination in June 2006 or 2007.

Figure 4.1 provides the estimated Leaving Certificate retention rates for pupils who entered post-primary education each year over the period 1995-2001 (and who sat the Leaving Certificate five-six years later). The data shows that post-primary school students are increasingly likely to complete the Leaving Certificate examination: the retention rate for the 2001 cohort is 3.3 percentage points greater than that for the 1995 cohort (81.3% compared to 78%). When the share of students transferring to non State-aided schools is considered, the adjusted retention rate for the 2001 cohort is 84.7%.

The data on gender indicates that females are more likely than males to sit the Leaving Certificate examination: for the 2001 cohort, the retention rate (unadjusted rate) was 85.8% for females compared to 76.9% for males. Although there was a significant gap of almost nine percentage points between the male and female Leaving Certificate retention rates for the 2001 cohort, the gap has narrowed, particularly compared to the mid nineties when there was in excess of eleven percentage points between males and females.



Figure 4.1 Leaving Cert Retention Rates, 1995-2001

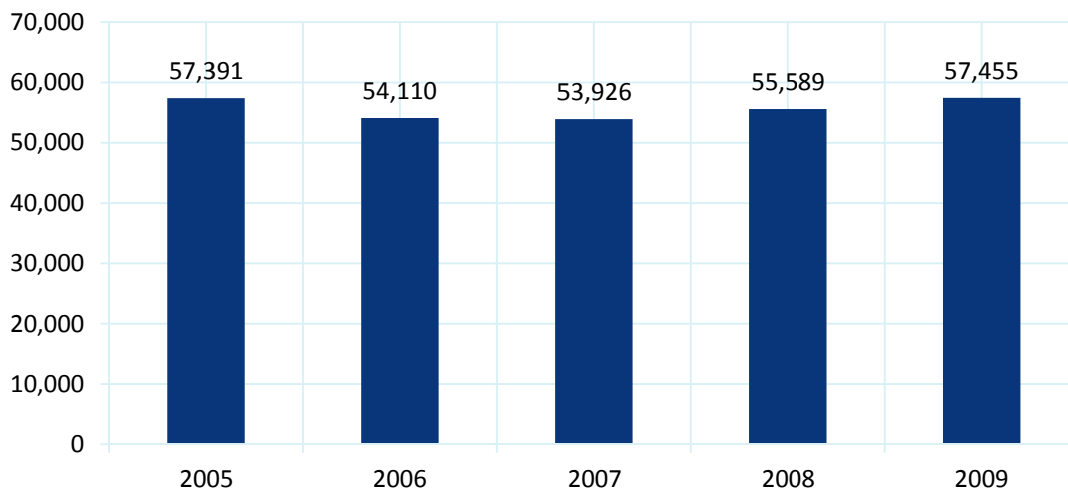


Source: DES (Retention Rates of Pupils in Second Level Schools: 1991 to 2001 Entry Cohorts)

Note: The adjusted retention rate is available from 1996 only.

The total number of Leaving Certificate candidates sitting the examination over the period 2005-2009 is shown in Figure 4.2. Approximately 57,500 students sat the Leaving Certificate examination in 2009, an increase of 3.3% (or 1,866 candidates) when compared to 2008. This continues a similar sized increase (3%, or 1,663 candidates) observed between 2007 and 2008 and brings the number of Leaving Certificate sits to its highest level than at any time over the preceding five years. Slightly more females than males sat the examination in 2009: 29,205 of the candidates were female, accounting for 51% of all sits; 28,250 were male.

Figure 4.2 Number of Leaving Certificate Candidates, 2005-2009



Source: State Examinations Commission



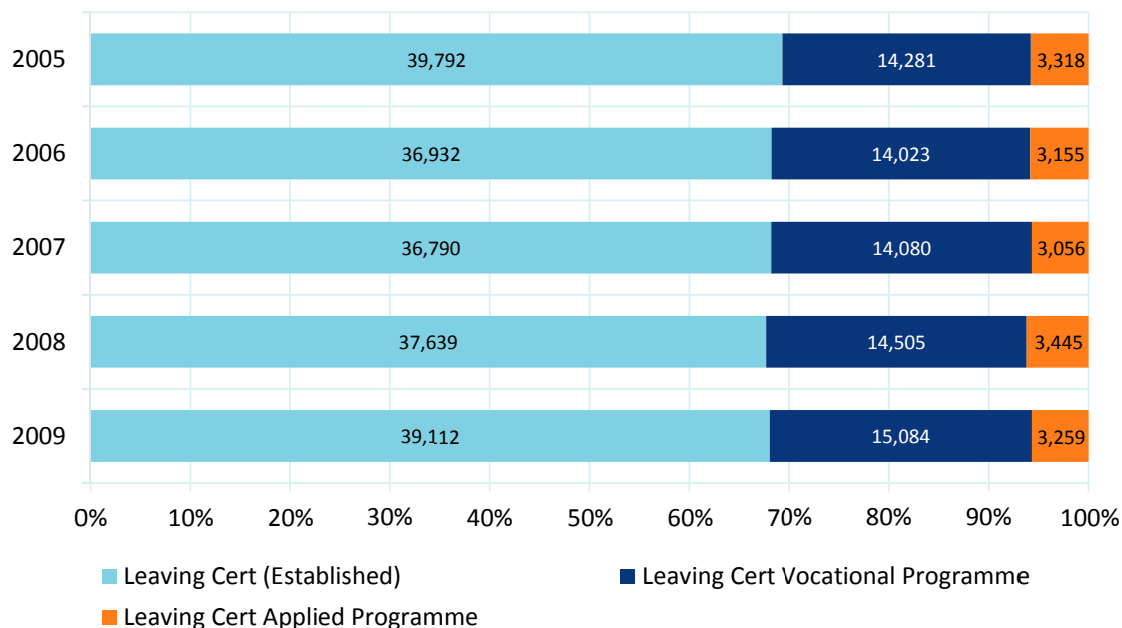
4.3 Leaving Certificate Programme Types

There are three types of programmes which lead to the Leaving Certificate award: Leaving Certificate Established, Leaving Certificate Vocational Programme and Leaving Certificate Applied.

- The Leaving Certificate Established (LCE) programme is designed to provide students with a broad and balanced education while allowing for some specialisation. The certificate is used for purposes to further education, employment, training and higher education.
- The Leaving Certificate Vocational Programme (LCVP) is a two-year, academic and experience based programme. It is not a separate stand alone programme but is designed to provide a strong vocational dimension to the Leaving Certificate Established programme.
- The Leaving Certificate Applied (LCA) programme was introduced in 1995 and is designed for students who do not wish to proceed directly to higher education or whose needs and aptitudes are not fully served by the other two Leaving Certificate programmes. The LCA is a distinct, self-contained programme and, as with the other Leaving Certificate programmes, is two years in duration. It aims to prepare students for the transition from school to adult and working life.

Figure 4.3 shows the distribution of Leaving Certificate sits by programme type over the period 2005-2009. The Leaving Certificate Established is the most popular examination and is taken by over two thirds of all candidates every year. The LCVP and the LCA account for approximately 25% and 6% of total sits respectively.

Figure 4.3 Leaving Certificate Candidates by Programme Type, 2005-2009



Source: State Examinations Commission

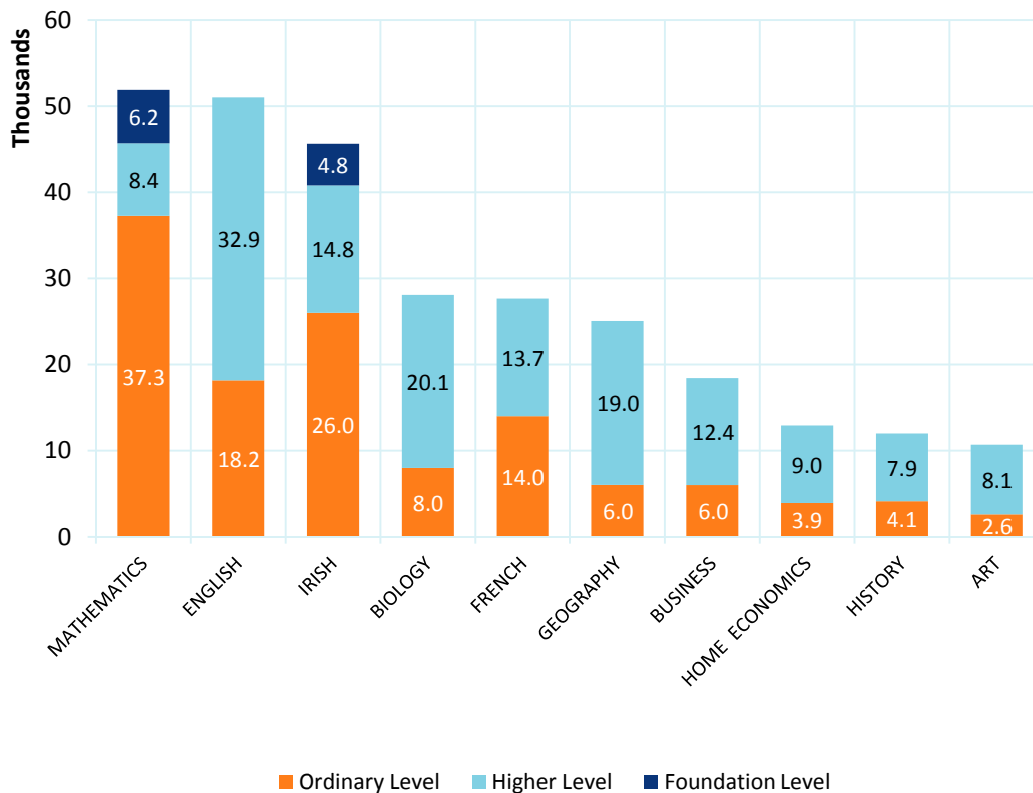


4.4 Leaving Certificate Subject Choices and Achievements (LCE & LCVP)

As the LCVP is not a stand alone programme, LCE and LCVP candidates sit the same examinations for each of their subject choices. The ten most popular subjects, by level, taken by Leaving Certificate candidates in 2009 are shown in Figure 4.4. Mathematics and English are the most popular examination subjects with more than 51,000 sits each, due in part to the fact that they are compulsory subjects for most students. This is followed by Irish at over 45,600 sits.

With the exception of mathematics, Irish and French, a majority of students opted to take the higher level paper in 2009. The subjects with the highest higher level participation rates were art, geography and biology: at least 72% of candidates took the higher level paper in these subjects. On the other hand, just 16% of mathematics students took the higher level paper while 32% of Irish students and 49% of French students opted to sit these examinations at higher level.

Figure 4.4 Top Ten Subject Choices for Leaving Certificate by Level, 2009



Source: State Examinations Commission



4.4.1 Science Related Subjects

The total number of candidates who sat selected science related subjects in 2005, 2008 and 2009 is shown in Table 4.1. The take-up rate is also shown in order to indicate the share of total Leaving Certificate candidates opting to sit each subject; the proportion of those taking the higher level paper for each subject is also provided. The data shows that:

- for mathematics, the take-up rate and the higher level participation rates declined slightly (by one percentage point each) over the five year period 2005-2009 although at 96%, it continues to have the second highest take-up rate of all Leaving Certificate subjects; at 16% in 2009, the share of students taking higher level was lower for mathematics than for any other Leaving Certificate subject
- biology has been gaining in popularity in recent years with more than half (52%) of all Leaving Certificate candidates opting to be examined in this subject in 2009; the higher level participation rate has also grown over the five year period 2005-2009, going from 69% to 72%; biology was the only science related subject which experienced an increase in the take-up rate over the period examined
- chemistry had the greatest higher level participation rate amongst science subjects at 82% in 2009; the take-up rate for chemistry remained constant at 14% (over 7,000 candidates per annum) over the five year period 2005-2009
- the take-up rate for physics declined from 15% to 13% between 2005 and 2009 resulting in approximately 1,000 fewer sits over the five year period; the higher level participation rate for this subject also declined over the same period although over two thirds of candidates continue to take the subject at higher level
- the take-up rate for construction studies remained constant over the five year period but there has been a rise in the higher level participation rate from 74% in 2005 to 79% in 2009.

Table 4.1 Selected Science Related Subjects: Take-up & Higher Level Participation 2005, 2008 -09*

	Maths	Biology	Chemistry	Physics	Construction Studies	Design & Comm. Graphics**
2005 Sits	52,178	25,362	7,366	7,944	9,020	-
Take-up Rate	97%	47%	14%	15%	17%	
% Higher Level	19%	69%	82%	69%	74%	
2008 Sits	50,121	26,607	7,114	7,113	8,713	-
Take-up Rate	96%	51%	14%	14%	17%	
% Higher Level	17%	69%	83%	69%	79%	
2009 Sits	51,902	28,100	7,403	6,923	9,130	6,204
Take-up Rate	96%	52%	14%	13%	17%	11%
% Higher Level	16%	72%	82%	68%	79%	66%

Source: State Examinations Commission

*Note: data for 2009 is provisional only

** Design and Communications Graphics is a new programme, replacing technical drawing, and was examined for the first time in 2009.



4.4.2 Business Related Subjects

The number of students sitting business related subjects over the period 2005-2009, the take-up rate and the higher level participation rate are outlined in Table 4.2.

- Business studies was the most popular subject in this category, with over one third of Leaving Certificate students sitting the examination each year. The take-up rate has nonetheless declined by four percentage points over the five year period; the higher level participation rate increased slightly over the same period.
- For accounting, the take-up rates remained constant at 13% over the period 2005-2009; the higher level participation rate, however declined from 73% to 70% over the same period.
- The take-up rate for economics declined slightly from 9% to 8% over the period examined; the higher level participation rate was one of the largest of any Leaving Certificate subject at 77%.

Table 4.2 Selected Business Related Subjects: Take-up & Higher Level Participation 2005, 2008 and 2009*

	Business Studies	Accounting	Economics
2005 Sits	20,506	7,023	4,797
Take-up Rate	38%	13%	9%
% Higher Level	65%	73%	77%
2008 Sits	18,733	6,837	4,423
Take-up Rate	36%	13%	9%
% Higher Level	65%	70%	77%
2009 Sits	18,425	6,891	4,576
Take-up Rate	34%	13%	8%
% Higher Level	67%	70%	77%

Source: State Examinations Commission

*Note: data for 2009 is provisional only

4.4.3 Languages

Over ten languages are offered to Leaving Certificate examination students. The most popular languages are detailed in Table 4.3 along with the number of sits, take-up rates and higher level participation rates for 2005, 2008 and 2009.

- Students in 2009 were less likely to sit the Leaving Certificate examination in languages than they were in 2005; with the exception of Spanish, the take-up rate declined over this period for each of the languages outlined in Table 4.3



- Leaving Certificate students are less likely to sit the higher level paper in languages than they are for other subject groups: in science (mathematics aside) and business related subjects at least two thirds of candidates sat the higher level paper in 2009; in languages, the higher level participation rate was less than two thirds
- **English:** the vast majority of Leaving Certificate candidates sat English (at least 94%) each year; English also has the greatest rate of higher level participation amongst language subjects
- **Irish:** while the take-up rate for Irish declined by four percentage points over the period 2005-2009, with the exception of mathematics, Irish has the smallest higher level participation rate of all Leaving Certificate subjects, despite small increases in the rate over the five year period
- **French:** although the take-up rate declined in recent years, French is one of only three languages which was taken by over one half of all Leaving Certificate candidates each year
- **German:** the take-up and higher level participation rates for German each declined, albeit by just one percentage point, over the five year period, 2005-2009
- **Spanish:** this was the only language to experience an increase in its take-up rate between 2005 and 2009; the total numbers increased by two thirds over the five years, but from a very small base; approximately 6% of Leaving Certificate students sat Spanish in 2009.

Table 4.3 Selected Language Subjects: Take-up & Higher Level Participation 2005, 2008 and 2009*

	English	Irish	French	German	Spanish
2005 Sits	51,524	47,436	30,592	7,924	1,972
Take-up Rate	95%	88%	57%	15%	4%
% Higher Level	63%	30%	48%	59%	58%
2008 Sits	49,383	44,660	27,697	7,466	2,965
Take-up Rate	95%	86%	53%	14%	4%
% Higher Level	64%	31%	46%	56%	54%
2009 Sits	51,032	45,636	27,675	7,574	3,277
Take-up Rate	94%	84%	51%	14%	6%
% Higher Level	64%	32%	49%	58%	57%

Source: State Examinations Commission

*Note: data for 2009 is provisional only

Candidates may also sit examinations in a range of languages known as non-curricular EU languages. These languages are not part of the normal school curriculum but students who are from an EU member state and who speak the language as a mother tongue may opt to be examined in that language. Candidates may sit only one non-curricular language subject. As such, this is a useful indicator for the minimum number of non-Irish EU nationals who sat the Leaving Certificate in 2008



and 2009, although it should be borne in mind that there may be non-Irish EU students who choose not to be examined in these subjects.

Table 4.4 shows the non-curricular languages and candidate numbers for 2008 and 2009. Between 2008 and 2009, the number of non-curricular language candidates increased by more than a half, going from over 540 in 2008 to in excess of 800 in 2009. In both 2008 and 2009, Polish was taken by a greater share of candidates, accounting for 32% in 2008 and 40% in 2009. Lithuanian was the second most popular language in this category, making up 176 sits and accounting for over a fifth of all non-curricular language sits in 2009.

Table 4.4 Non-Curricular Languages (Sits) 2008-2009

	2008 Sits	2009 Sits
Polish	171	328
Lithuanian	131	176
Romanian	67	92
Others*	65	87
Portuguese	29	55
Latvian	50	48
Dutch	28	31
Total	541	817

Source: State Examinations Commission

*Others include Bulgarian, Hungarian, Modern Greek, Danish, Finish, Czech and Estonian.

4.4.4 Leaving Certificate Achievement, by Subject and Level

Tables 4.5 and 4.6 show the Leaving Certificate students' achievements at ordinary and higher level respectively in English and core science subjects for 2005 and 2009. Higher level candidates are more likely than ordinary level candidates to obtain at least a grade D in the English and core science subjects: the pass rates for these subjects are greater at higher level than ordinary level. The gap was greatest for chemistry where 85% of candidates at ordinary level passed, while 93% of those at higher level obtained a pass grade.

Mathematics had amongst the greatest pass rates at higher level. In addition, 95% (or approximately 5,900) of those who sat foundation level mathematics obtained a pass grade.

Tables 4.5 and 4.6 show that increasing numbers of candidates are achieving a minimum grade D in ordinary level mathematics, physics, and biology and in higher level mathematics and physics. In fact, 2009 was the first time the pass rate for ordinary level mathematics increased (albeit moderately) as it had remained at 88% in each of the years 2005-2008.



Table 4.5 Ordinary Level Achievements (Grades \geq D); 2005 and 2009

Ordinary Level	2005 \geq D	% of Subject Sits	2009 \geq D	% of Subject Sits
English	18,644	97%	18,169	97%
Maths	32,387	88%	33,414	90%
Physics	2,160	89%	2,230	90%
Chemistry	1,173	88%	1,156	85%
Biology	6,430	82%	6,782	85%

Source: State Examinations Commission

Table 4.6 Higher Level Achievements (Grades \geq D); 2005 and 2009

Higher Level	2005 \geq D	% of Subject Sits	2009 \geq D	% of Subject Sits
English	31,793	98%	32,304	98%
Maths	9,433	96%	8,145	97%
Physics	5,024	91%	4,329	92%
Chemistry	5,629	93%	6,037	93%
Biology	16,429	94%	18,380	91%

Source: State Examinations Commission

4.4.5 Leaving Certificate Subject Choice by Gender

Table 4.7 shows the gender breakdown of sits for Leaving Certificate subjects in 2009. It also includes a gender breakdown by higher and ordinary level sits. Higher level subjects are, in the main, dominated by females, particularly in home economics where 92% of candidates were female. However, males dominate in three higher level subjects - mathematics, history and geography making up at least 55% of all sits.

At ordinary level, males dominate in English, Irish, geography and history. Females made up the greater share of sits in all other subjects except business for which the gender distribution is balanced.

Table 4.7 Gender Breakdown of Sits at Higher and Ordinary Level, 2009

	Total Sits	Male %	Female %	Ord Level	Male %	Female %	Higher Level	Male %	Female %
Mathematics	51,902	50%	50%	37,272	48%	52%	8,420	56%	44%
English	51,032	49%	51%	18,169	58%	42%	32,863	45%	55%
Irish	45,636	48%	52%	26,009	52%	48%	14,796	34%	66%
Biology	28,100	35%	65%	7,999	37%	63%	20,101	34%	66%
French	27,675	42%	58%	13,999	46%	54%	13,676	38%	62%
Geography	25,061	55%	45%	6,037	58%	42%	19,024	55%	45%
Business	18,425	48%	52%	6,015	50%	50%	12,410	47%	53%
Home Economics	12,936	11%	89%	3,928	18%	82%	9,008	8%	92%
History	11,990	58%	42%	4,140	62%	38%	7,850	56%	44%
Art	10,693	37%	63%	2,616	46%	54%	8,077	34%	66%

Source: State Examinations Commission

4.4.6 Gender Distribution of Leaving Certificate Achievements

Table 4.8 compares the Leaving Certificate achievements by males and females in key subjects. In 2009, females were more likely than males to obtain at least a grade D in the key areas of English, mathematics, physics, chemistry and biology at either higher or ordinary level.

- English had one of the highest pass rates (of the subjects considered here) with in excess of 96% of males obtaining at least a grade D at ordinary and higher level and 98% and 99% of females at ordinary and higher level respectively
- Mathematics: at ordinary level, almost all females passed mathematics but only 80% of males did so; females were also slightly more likely to gain at least a D grade at higher level, although at 96% and 98% respectively, the vast majority of males and females passed higher level mathematics in 2009
- Physics: females outperformed males in terms of the share of candidates who obtained at least a grade D but as more males than females sat physics, in absolute terms, significantly more males obtained a D+ grade in 2009; this pattern is in line with preceding years
- In chemistry & biology females again outperformed males at both higher and ordinary level; the pass rates for both males and females were significantly higher at higher level than at ordinary level.



Table 4.8 Gender Breakdown of Achievement at Higher and Ordinary Level in Key Subjects, 2009

	English	%	Maths	%	Physics	%	Chemistry	%	Biology	%
Ordinary Level										
Males ≥ D	10,008	96	14,322	80	1,661	90	551	82	2,433	82
Females ≥ D	7,561	98	19,092	99	347	93	605	87	4,349	87
Higher Level										
Males ≥ D	14,293	96	4,499	96	3,108	91	2,408	92	6,199	90
Females ≥ D	18,011	99	3,646	98	1,221	94	3,212	94	12,181	92

Source: State Examinations Commission

4.5 Leaving Certificate Applied Results (LCA)

The LCA programme is comprised of a range of courses, each designed on a modular basis and delivered over four half-year sessions. Participants complete a total of 44 modules with eleven modules per session. The outcome of student assessment in the LCA is stated in the form of credits: a maximum of 200 credits can be gained by each student through a combination of successful completion of modules and the sitting of final examinations. Candidates are required to sit exams in the following subjects

- English and communication
- Two vocational specialisms (e.g. agriculture/horticulture, engineering, childcare/community care, technology, hair and beauty, etc.)
- Mathematical applications
- Languages (Irish and a modern European language)
- Social education.

The Leaving Certificate Applied is awarded at three levels:

Pass	60-69%	120-139 Credits
Merit	70-84%	140-169 Credits
Distinction	85-100%	170-200 Credits

Candidates who obtain less than 60% (120 credits) or who leave school prior to the completion of the programme receive a record of credits.

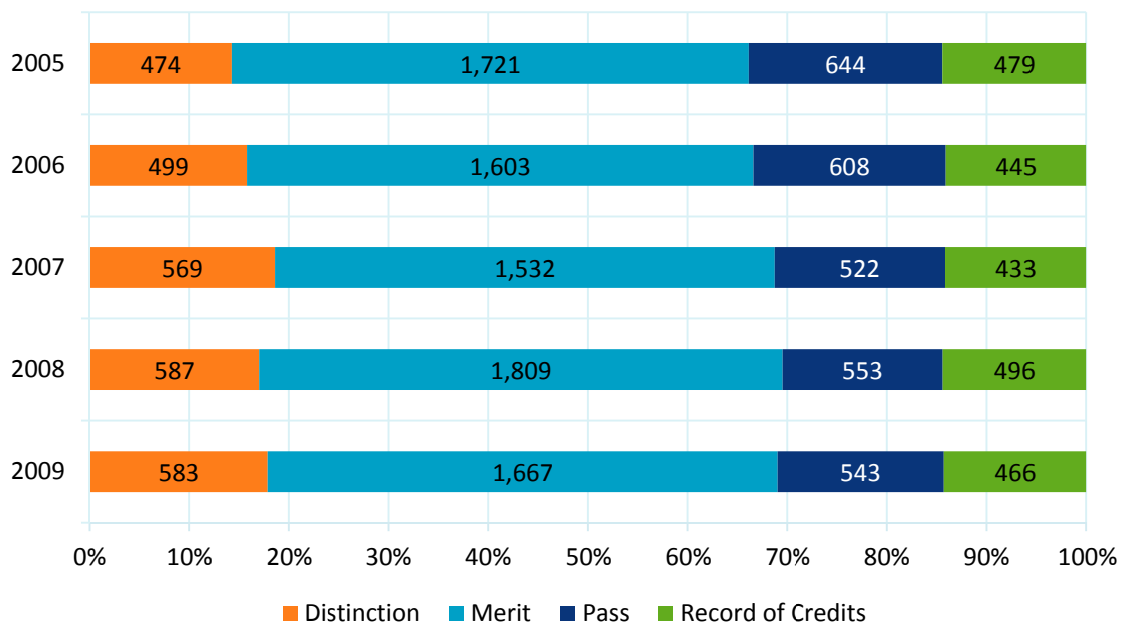
The LCA award holder is eligible to enter a range of Post-Leaving Certificate (PLC) courses, apprenticeships or courses offered by Fáilte Ireland. The PLC courses can lead to a Further Education and Training Awards (FETAC) level 5 award and in some cases a FETAC level 6 award. Students with the Leaving Certificate Applied cannot gain direct entry through the Central



Applications Office (CAO) system to the universities or institutes of technology. However, those who hold a FETAC level 5 or 6 award can be eligible to apply for some third-level courses in higher education institutions (including universities, institutes of technology and private, independent colleges)¹⁶.

The numbers of students who received a pass, merit, distinction or Record of Credit in the LCA 2005-2009 are presented in Figure 4.5. In 2009, just over one half of all LCA candidates received a merit; 18% received a distinction; approximately 17% received pass while the remaining 14% received a Record of Credit.

Figure 4.5 Leaving Certificate Applied Results, 2005-2009



Source: State Examinations Commission

4.6 CAO Points Achievements

The Central Applications Office (CAO) undertakes the task of processing centrally the applications to undergraduate (levels 6, 7, and 8) courses at many of the higher education institutes in Ireland. Students wishing to follow a course at any of the participating institutions indicate to the CAO their course choices in order of preference. Places are subsequently offered on the basis of points calculated from a candidate's Leaving Certificate results.

¹⁶ For 2010, 40 higher education institutions are offering progression to a wide variety of undergraduate higher education programmes spanning levels 6-8 on the NFQ to holders of FETAC major awards.



The points system gives priority to students with the better performance. The six best results in recognised subjects are added up for points computation. In general, most subjects carry equal points and points are awarded for each grade as per Table 4.9 below. However, bonus points for higher level mathematics are awarded by University of Limerick and for certain courses at Dublin Institute of Technology and Mary Immaculate College, Limerick. Dublin Institute of Technology also awards bonus points for mathematics and a number of science subjects for the level 8 course in electrical and electronic engineering. Foundation level mathematics and Irish do not carry any points for entry to many higher education institutes. The Leaving Certificate Vocational programme Link Modules carry points as follows: Distinction = 70, Merit = 50, Pass = 30. The Link Module score can be substituted as one of a student's best six subjects but may not be counted in addition to the best six subjects.

Table 4.9 Leaving Certificate Grade Points

	A1	A2	B1	B2	B3	C1	C2	C3	D1	D2	D3	<E
%	90-100	85-89	80-84	75-79	70-74	65-69	60-64	55-59	50-54	45-49	40-44	0-39
Higher Level	100	90	85	80	75	70	65	60	55	50	45	0
Ordinary Level	60	50	45	40	35	30	25	20	15	10	5	0

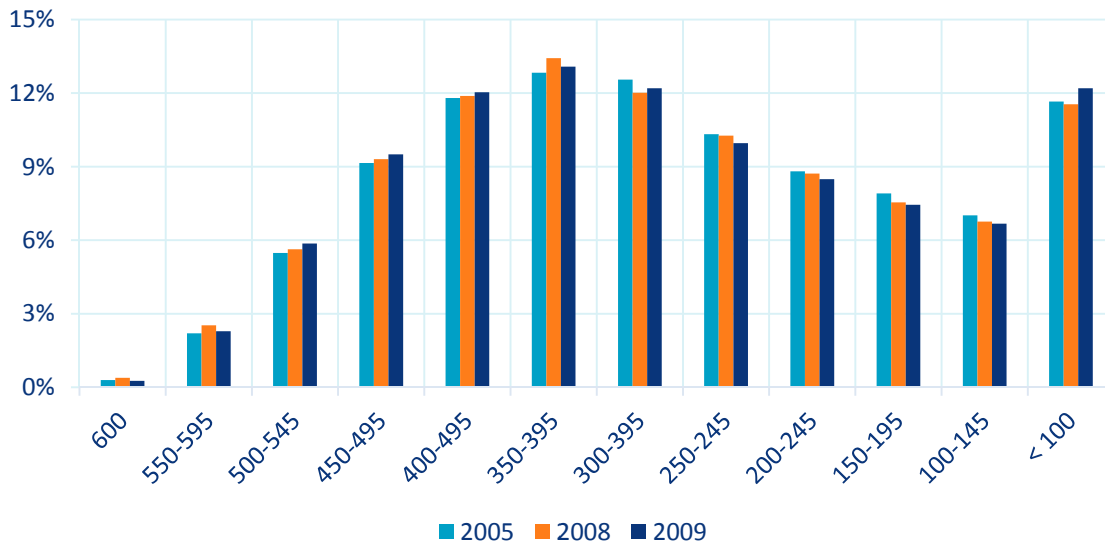
Source: CAO

Figure 4.6 compares the points achievements for CAO applicants in 2005, 2008 and 2009. While not all CAO applicants are school leavers, the vast majority are; the data in this section is therefore a good indication of the achievements of the students who sat the Leaving Certificate Established examination in 2005, 2008 and 2009. The data presented here refers to nominal points achievements only and bonus points that may be award for subjects such as higher level mathematics have not been considered.

Each year more than a half of students received at least 300 points (equivalent to at least a D2 grade in six higher level papers). Top achievers gaining 550 points or more (i.e. with at least six A2 grades at higher level) made up less than 3% of the total each year. The proportion of students with less than 100 points (exaggerated on the scale by the results of external candidates who may opt to sit just one subject) rose slightly.



Figure 4.6 CAO Points Achievements by Leaving Cert Students in 2005, 2008 and 2009



Source CAO



Chapter 5 Further Education and Training Awards

Key Points

- There were almost 175,000 FETAC award holders in 2009, a 41% increase on 2008
- Over the period 2007-2009, the number of awards and candidates increased for each award type, except Special Purpose awards
- At 55%, slightly more FETAC awards went to females than males in 2009; however, males dominate at levels 4 and 6; females dominate at levels 3 and 5
- Major awards were skewed towards the younger age cohorts with in excess of 60% aged less than thirty each year
- However, older age cohorts have made gains in their share of awards for each award type, except supplemental awards, over the period 2007-2009; those aged 40 and over accounted for
 - a fifth of all major awards in 2009, compared to 15% in 2007
 - a third of minor awards in 2009, compared to 28%
 - 52% of specific purpose awards, compared to 32%
- Approximately 60% of awards were in services (e.g. tourism), general programmes (e.g. computer literacy) or social science, business and law (e.g. business studies)
- VECs/schools and FÁS are the main providers of courses leading to FETAC awards with a combined share of 69% of all FETAC awards made in 2009
- In 2009, more than 8,100 (or 11%) of all CAO applicants were holders of a FETAC major award - a 12% increase on 2008.

5.1 Introduction

This chapter examines the supply of skills emerging from the further training and education (FET) sector in Ireland. The Further Education and Training Awards Council (FETAC) is the national awarding body for FET in Ireland. FET awards have been placed across levels 1-6 on the NFQ. Learning outcomes associated with NFQ levels 1-6 are presented in Appendix B.

Following a short description of the different types of FETAC certificate and their corresponding award types, further education and training awards data is examined in terms of number of awards, NFQ level, recipient profiles (gender and age), field of learning and provider types for (a) overall awards and (b), each of the four individual awards types: major, minor, special purpose and supplemental awards.

FETAC makes four different award types as described below. On achieving an award, a candidate is issued with a relevant FETAC certificate.



- A Certificate is for a major award and is the principal class of award made at each level. It represents a significant volume of learning outcomes. A major award will prepare learners for employment, participation in society and community and access to higher levels of education and training e.g. Level 5 certificate in childcare.
- A Component Certificate is issued on achieving one or more minor awards which are derived from and linked to at least one major award. Achievement of a minor award provides for recognition of learning that has relevance and value in its own right e.g. word processing, health and safety at work. In this chapter, minor awards data has been disaggregated from their respective component certificates in order to fully analyse the learning involved.
- A Specific Purpose Certificate (for a special purpose award) is made for specific relatively narrow purposes. It does not have to link to a major award e.g. environmental inspection skills.
- A Supplemental Certificate (for a supplemental award) is made to recognise learning which involves updating/up-skilling and/or continuing education and training with specific regard to occupations e.g. gas installation.

There are over 800 registered providers (incorporating approximately 1,400 separate centres) nationwide that offer programmes leading to FETAC awards. These providers include Bord Iascaigh Mhara (BIM), Fáilte Ireland, FÁS, Teagasc, Vocational Education Committees (VECs), institutes of technology, adult and community education and training centres, a range of private providers, and the workplace. The education and training provided ranges from short courses to longer programmes including apprenticeships.

5.2 Overview of Awards Data

Although FETAC has produced awards data on an annual basis since 2001, due to a comprehensive re-classification of certain awards, the baseline data for comparison purposes is 2007. In the section that follows an analysis of FETAC data is presented, looking first at overall awards (all types) by variables such as candidate and award numbers, recipient age, recipient gender, field of learning and provider type. Data for individual award types is then examined in greater depth.

Table 5.1 shows the number of FETAC awards and candidates for 2007, 2008 and 2009 by award type. The number of awards and candidates increased for each award type except Special Purpose awards. While the total number of FETAC award holders increased over the period 2007-2009, the greater share of this increase occurred between 2008 and 2009 when the number of award holders rose by a third (i.e. an additional 43,781 candidates). Approximately 16% of award holders gained major awards in 2009.

Despite a 2% decline in the total number of awards made in 2007 and 2008, there was an overall 41% increase in awards between 2007 and 2009. More than 85% were minor awards; 9% were major awards; 5% special purpose awards with supplemental awards making up a negligible share.



Table 5.1 FETAC Awards by Type and Candidate, 2007-2009

Award Type	2007		2008		2009	
	Awards	Award Holders	Awards	Award Holders	Awards	Award Holders
Certificates (Major)	22,759	22,689	24,429	24,429	28,772	28,722
Component (Minor)	176,321	87,662	177,228	93,910	268,680	135,804
Specific (Special) Purpose	24,157	20,290	17,176	17,176	16,087	16,087
Supplemental	456	456	717	717	1,281	1,281
Total	223,693	128,624*	219,550	131,089*	314,820	174,870*

Source: FETAC

* The number of award holders does not sum up as some candidates may obtain more than one award type.

5.2.1 Awards by Level

Table 5.2 provides a breakdown of the overall number of awards made by NFQ level for 2007, 2008 and 2009.

Approximately one half of all awards in 2009 were made at level 5, amounting to almost 165,000 awards. Levels 3 and 4 each accounted for approximately one fifth of the total. The remainder was predominantly at level 6 (8%) with a negligible share at levels 1 and 2.

There has been little change in the distribution of awards by level since 2007 with the exception of the inclusion of level 1 and 2 awards for the first time since 2008. Approximately one half of awards were made at level 5 each year, with levels 3 and 4 making up the bulk of the remainder. The share of level 6 awards increased from 7% to 8% over the period 2007-2009.

In absolute terms, however, there has been a notable increase in the number of level 6 awards (+58% between 2007 and 2009). The growth is partly due to a rise in the number of awards made for courses related to the renewable energy and green economy sectors, e.g. building energy rating (BER) assessment and solar domestic hot water systems.

Table 5.2 FETAC Awards by NFQ Level, 2007 & 2008

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Total
2007	-	-	45,445	47,982	113,545	16,721	223,693
2008	99	502	43,834	43,247	108,324	23,544	219,550
2009	275	535	69,023	53,598	164,939	26,450	314,820

Source: FETAC

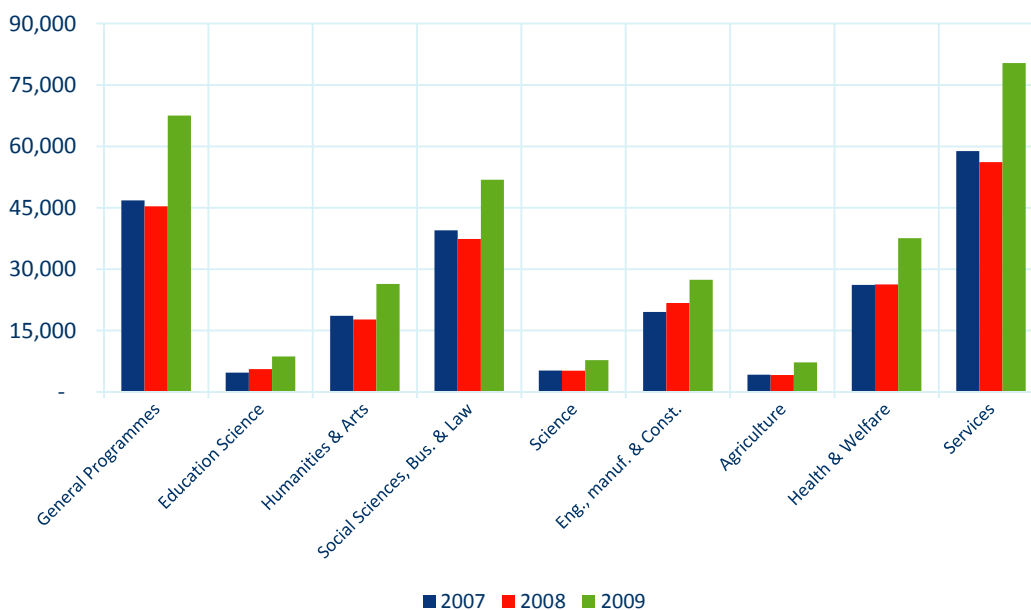


5.2.2 Awards by Field of Learning

Figure 5.1 shows the fields of learning in which FETAC awards were made in 2007, 2008 and 2009. The distribution of awards by field of learning is very similar for each of the three years examined: over a quarter was in the services field (e.g. tourism studies, security studies); over a fifth was for general programmes (e.g. computer literacy, communications) and a further 17-18% was in social sciences, business and law each year. Construction, engineering and manufacturing awards made up 9% of the total in 2009 which is a small decline in relative terms from the 10% share observed in 2008.

In terms of the number of awards made, there were increases across each of the nine fields of learning when compared to both 2007 and 2008. The greatest increase in absolute terms was for services and general programmes which expanded by in excess of 20,000 each between 2007 and 2009.

Figure 5.1 FETAC awards by field of learning, 2007-2009



Source: FETAC

5.2.3 Awards Recipients - Gender¹⁷

The share of awards that were obtained by male and female candidates is detailed in Table 5.3 by NFQ level. Overall, slightly more females than males received FETAC awards over the period 2007-2009 with just over one half of total FETAC awards going to females each year. This gender distribution, however, does not hold across all NFQ levels. Level 6 and level 4 awards, for instance, tend to be made to males rather than females. In 2009, 58% of level 6 awards (e.g. craft

¹⁷ Throughout this report, all data used for the gender and age breakdown is based on the number of disaggregated awards (rather than award holders).



qualifications, BER assessment qualifications) and 56% of level 4 awards (e.g. manual handling, security studies, computing) were made to males.

In contrast, females dominated for awards made at levels 5 and 3. Over 60% of level 5 awards (which include health and welfare studies) were achieved by females each year over the period 2007-2009. Although the greater share of level 3 awards was also made to females each year, awards are increasingly being made to males who have increased their share from over a third in 2007 to less than a half (45%) in 2009. Level 3 awards include computer literacy, personal effectiveness and safety awareness.

The gender distribution of awards recipients was closest to balance at levels 1 and 2 for 2009 although, as in 2008, awards made male recipients continued to outnumber those made to females.

Table 5.3 FETAC Awards by Recipient Gender, 2007-2009

	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
2007	-	-	-	-	37%	63%	58%	42%	39%	61%	58%	42%	44%	56%
2008	65%	35%	65%	35%	40%	60%	56%	44%	37%	63%	67%	33%	45%	55%
2009	52%	48%	54%	46%	45%	55%	56%	44%	39%	61%	58%	42%	45%	55%

Source: FETAC

5.2.4 Awards Recipients - Age

Table 5.4 shows that there was little change in the age distribution of award recipients' age between 2007 and 2008. There was, however, a slight shift towards the older age cohorts over the period 2008-2009, with a three percentage point rise in the share of awards made to those aged 30-49 years and a two percentage point increase for those aged 50-60+. This suggests that FETAC awards are increasingly being made to those in the older cohorts. Nonetheless, a substantial share (44%) of awards was achieved by those aged 29 or less each year.

Table 5.4 Awards by Recipient Age, 2007-2009

	15-19	20-29	30-39	40-49	50-59	60+
2007	18%	30%	20%	16%	9%	3%
2008	18%	30%	21%	16%	9%	3%
2009	16%	28%	22%	18%	11%	3%

Source: FETAC

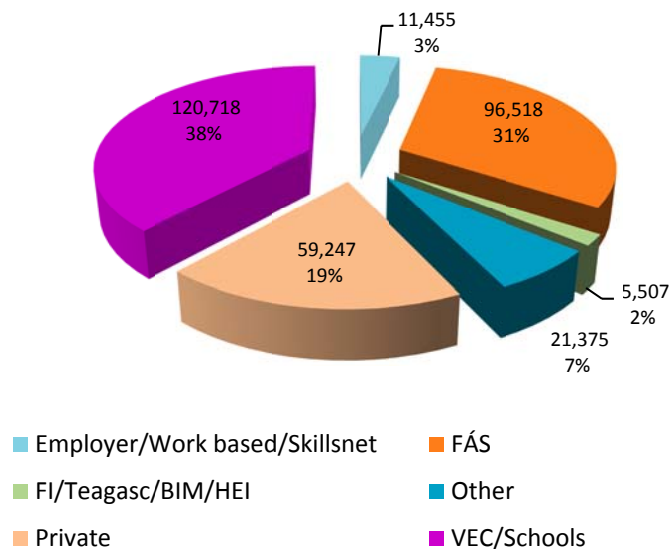


5.2.5 Awards by Provider

Figure 5.2 details the overall distribution of FETAC awards made in 2009 by the main provider types. Overall, VECs/schools are the largest provider type with over 120,700 awards (38% of the total). FÁS-provided training and education made up just under a third of all awards, accounting for over 96,500 awards. The distribution of award by provider type is similar to that of 2008 with VEC/schools accounting for the largest share, followed by FÁS and private providers.

It should be noted that the data in this section reflects the number of awards by training provider type only; it does not take account of the fact that some organisations may receive funding to supply training on behalf of another, thereby underestimating the provision of some providers¹⁸ and overestimating that of others.

Figure 5.2 Total FETAC Awards by Selected Provider Type, 2009*



Source FETAC

* Some providers have been grouped (Fáilte Ireland, Teagasc, Bord Iscaigh Mhara and higher education institutes)

5.3 Major Awards

More than 28,700 learners received major awards in 2009 representing an increase of 18% when compared to 2008. The vast majority of candidates received one major award each. When compared to 2007, the gains are even greater, with the number of awards and award holders increasing by more than a quarter between 2007 and 2009.

¹⁸ For example, the 'other' category includes awards made for training for people with disabilities, the funding for which was provided by a number of organisations including FÁS.



Award Level: The largest share of major awards was at level 5, accounting for 61% (or 17,400) in 2009. This was followed by level 6 awards which made up approximately one quarter of the total. Most of the remaining awards were made at levels 3 and 4 while the combined share of level 1 and 2 awards, which were made for the first time in 2008, accounted for less than 1%.

The distribution of major awards in terms of level is broadly in line with that of previous years with the exception of level 6 awards which declined in share from 29% in 2007 to 24% in 2009. The share of awards at level 3, on the other hand, increased to 9% (up from 5% since 2007).

Awards by Field of Learning: Just over one quarter (7,629) of all FETAC major awards were for courses in health and welfare (e.g. childcare, healthcare support) which were made predominantly at level 5. Social science, business and law had the second highest share of major awards with a fifth of the total (or 5,700), typically for courses in business or secretarial studies at level 5. More than 60% of all level 6 awards were in engineering, manufacturing and construction, which were chiefly craft awards (e.g. carpentry and joinery; electrical).

Table 5.5 Major Awards by Field of Learning, 2009

Field	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Total
General	72	194	2,279	381	32	-	2,958
Education	-	-	-	-	4	-	4
Humanities & Arts	-	-	-	15	2,128	242	2,385
Social Science, Business & Law	-	-	220	395	4,643	479	5,737
Science	-	-	-	-	691	132	823
Engineering, Manuf. & Const.	-	-	-	78	390	4,323	4,791
Agriculture & Vet.	-	-	-	123	894	559	1,576
Health & Welfare	-	-	-	-	7,296	333	7,629
Services	-	-	-	682	1,360	827	2,869
Total	72	194	2,499	1,674	17,438	6,895	28,772

Source: FETAC

Gender: Overall, major awards recipients are more likely to be female than male: at least 55% of all major awards went to females each year over the period 2007-2009. However, when the data is examined by NFQ level, differences in the gender distribution emerge with female dominance occurring at levels 3 and 5 only (60% & 63% of awards at these levels were for females). Males dominate at all other levels. This is in part a reflection of the type of courses for which the awards were made: craft awards (e.g. carpentry and joinery, electrical, etc), which are typically male-dominated areas of learning, made up 61% of level 6 major awards in 2009 while the traditionally female fields such health and welfare (including childcare) made up a large proportion (40+%) of level 5 major awards.

Over time, the total share of awards made to males and females has not changed significantly and, with the exception of level 3, is broadly in line with preceding years. At level 3, however, males

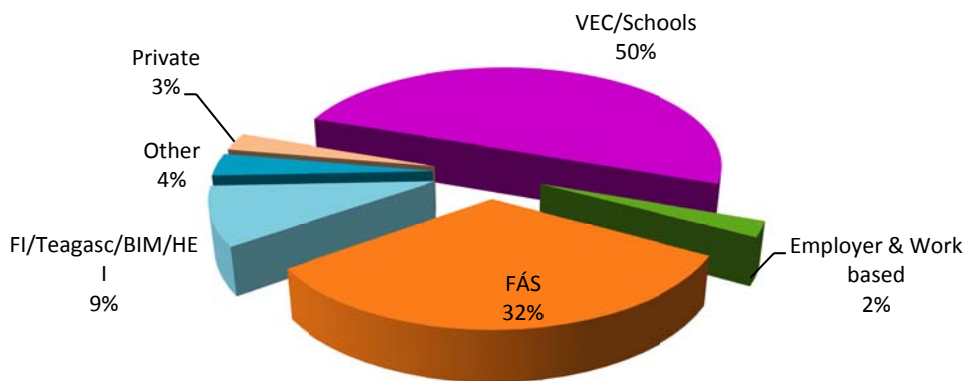


have made steady gains in the share of major awards (e.g. computing skills, vocational employment skills), going from 37% to 45% over the period 2007-2009.

Age: Over the period 2007-2009, major awards recipients were skewed towards the younger age cohorts with in excess of 60% aged less than thirty each year. However, the older age cohorts have been making gains in terms of their share of major awards: those aged 40 and over accounted for a fifth of all awards in 2009 but just 15% in 2007 - a gain in absolute terms of approximately 2,400. At the same time, the share of younger awards recipients declined over the three year period, with the under 30s going from a 70% share of awards in 2007 to 63% in 2009.

Provider Type: In 2009, approximately one half of major awards were made for courses taken at VECs/schools. FÁS had the second largest share of major awards with almost a third of the total. Although the VECs/schools and FÁS were also the top two provider types each year over the period 2007-2009, there has been a two percentage point increase in the VEC/schools share of major awards since 2007 and a concomitant decline (of two percentage points) in FÁS's share. Despite this decline in share, however, the number of FÁS award recipients rose, in absolute terms, by more than 1,400 to reach 9,252 in 2009. The number of VECs/schools awards increased by 3,400 to reach 14,413 in 2009. The distribution of awards by other provider types is broadly in line with that of preceding years.

Figure 5.3 FETAC Major Awards by Provider Type, 2009



Source: FETAC

Progression to Higher Education: Holders of FETAC major awards are eligible to apply, through the Central Applications Office, for a limited number of places at higher education institutions using their FETAC award rather than Leaving Certificate results in order to compute CAO points. In 2009, more than 8,100 (or 11%) of all CAO applicants were holders of a FETAC major award¹⁹. This represents a 12% increase on 2008. Early statistics for 2010 indicate further increases in the number (and share) of CAO applicants who hold FETAC awards, which are estimated to account for 14% (or

¹⁹ Source: FETAC Annual Report 2009: Highlights



approximately 10,600) of all applicants for 2010. It should be noted that FETAC award holders do not necessarily obtain a place on the basis of their FETAC award alone; some may apply using their Leaving Certificate results or a combination of Leaving Certificate results and their FETAC award.

5.4 Minor Awards

Between 2007 and 2009, the number of candidates receiving minor awards rose by more than a half (55%) and went from 87,662 in 2007 to 135,804 in 2009. The bulk of this increase occurred in 2009 with an additional 42,000 awards recipients when compared to 2008. As in 2008, candidates received, on average, two minor awards.

Award Level: In 2009, the largest share of minor awards was at level 5, accounting for one half (or approximately 134,000 awards) of all minor awards made that year. Level 3 minor awards had the second highest share with a quarter of the total (almost 67,000 awards), followed by level 4 awards which had almost a fifth (19% or approximately 51,500 awards).

Over the period 2007-2009, the number of awards made at each level increased. The most significant increase was for level 6 awards which more than doubled in number over the three year period. Level 5 awards also increased substantially - by over 70%. Most of these increases occurred between 2008 and 2009.

Awards by Field of Learning: As detailed in Table 5.6, the services category (e.g. catering; security services) had the highest number of minor awards (75,820 or 28%), followed by general programmes (e.g. communications; computer literacy) with 64,565 awards (or 24% of all minor awards). Health and welfare had the highest number of level 5 awards while level 6 awards were made mostly in education.

Table 5.6 Minor Awards by Field of Learning, 2009

Field	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Grand Total
General	188	334	37,682	5,907	19,284	1,170	64,565
Education	-	-	-	24	2,847	4,684	7,555
Humanities & Arts	6	7	8,704	3,870	8,717	1,631	22,935
Social Science, Business & Law	-	-	4,379	12,997	26,713	2,967	47,056
Science	9	-	1,833	611	3,877	645	6,975
Engineering, Manuf. & Const.	-	-	1,878	773	2,806	2,854	8,311
Agriculture & Vet.	-	-	3,188	338	1,840	154	5,520
Health & Welfare	-	-	1,001	1,096	26,319	1,527	29,943
Services	-	-	7,859	25,846	41,269	846	75,820
Total	203	341	66,524	51,462	133,672	16,478	268,680

Source: FETAC

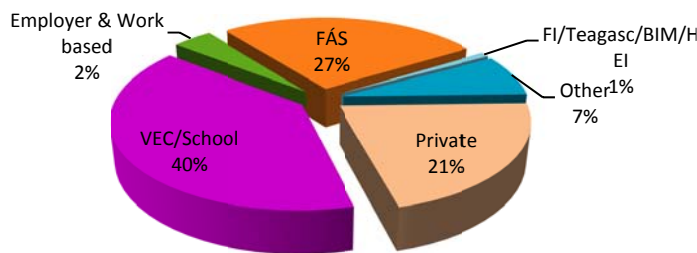


Gender: Overall, minor awards recipients were more likely to be female than male with females gaining over one half (58%) of minor awards in 2009. Females outnumbered males at levels 3, 5 and 6 while males dominate at levels 2 and 4. The gender gap is greatest at level 5 (two thirds were for females); minor awards at level 5 include healthcare, childcare, and education, which tend to be more popular course choices for female learners. Males, however, have been making steady gains with the share of total minor awards growing from 37% in 2007 to 42% in 2009.

Age: Older learners are gaining an increasing share of minor awards; award holders aged 40 or more accounted for a third of all minor awards in 2009, compared to a 28% share in 2007. The share of learners aged 30-39 also increased (by two percentage points) over the same period with the result that, for the first time, learners aged 30+ made up the greater share of minor awards recipients in 2009.

Provider Type: In 2009, 40% of minor awards were made for courses taken at VECs/schools. FÁS had the second largest share at over a quarter followed by private providers at just over a fifth.

Figure 5.4 FETAC Minor Awards by Provider Type, 2009



Source: FETAC

5.5 Specific Purpose Awards

Between 2007 and 2009, the number of candidates receiving specific purpose awards declined by more than a fifth, going from almost 20,300 candidates in 2007 to 16,087 in 2009. Although some candidates in 2007 received more than one award, candidates in 2008 and 2009 received one award per candidate. This means that in terms of awards made (rather than candidates), the decline was even greater (one third) with the number of awards going from 24,157 in 2007 to 16,087 in 2009.

Award Level: Over the period 2007-2009, specific purpose awards were made at levels 4, 5 and 6 only. In 2009, the vast majority was at level 5 (over 13,800 or 86%); 11% were made at level 6 with the remaining 3% at level 4. Although there has been a decline in absolute numbers at level 6 since



2007 (-167), in relative terms, the share of specific awards made at this level has actually increased, going from 8% in 2007 to 11% in 2009.

Awards by Field of Learning: The vast majority (81%) of specific purpose awards in 2009 were made in the field of engineering, manufacturing and construction, mostly at level 5 (for courses in health and safety at roadworks and signing or lighting and guarding at roadworks, for example). Awards in the services field of learning, which had the second highest share of awards (at 10%), included programmes in heavy goods driving and warehouse operations.

Table 5.7 Specific Purpose Awards by Field of Learning, 2009

Field	Level 4	Level 5	Level 6	Total
Education	-	-	1,138	1,138
Social Science, Business & Law	-	17	176	193
Engineering, Manuf. & Const.	64	12,627	297	12,988
Agriculture & Vet.	36	3	101	140
Services	362	1,182	84	1,628
Total	462	13,829	1,796	16,087

Source: FETAC

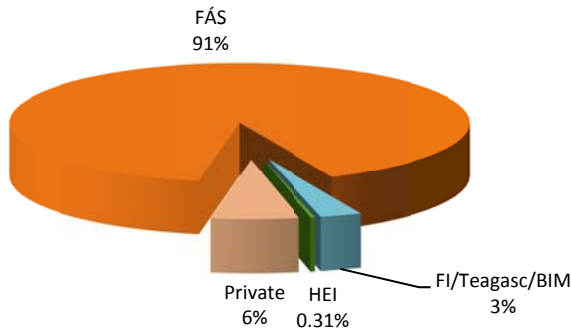
Gender: Overall, the recipients of specific purpose awards are more likely to be male with at least 95% of awards going to male recipients each year. This is related to the fact that Specific Purpose awards were made predominantly in the engineering, manufacturing and construction field of learning for courses related to the construction industry.

Age: Specific Purpose awards holders tend to be in the older age cohorts with over one half aged at least 40 in 2009. The age profile of specific awards recipients has shifted further towards the older age cohorts since 2007 when the share of older recipients (those aged 40 and over) was 32%.

Provider Type: In 2009, the vast majority (91%) of specific purpose awards were made for FÁS provided courses, with courses undertaken at Fáiite Ireland, Teagasc and BIM centres (3%), private provider centres (6%) and other higher education institutions (less than 1%) making up the remainder. This pattern of awards by centre type is very similar to that of 2008 although the relative share for FÁS increased from 87% with concomitant declines for the other provider types.



Figure 5.5 FETAC Specific Purpose Awards by Provider Type, 2009



Source: FETAC

5.6 Supplemental Awards

With just over 1,280 awards made in 2009, supplemental awards make up the smallest type of awards made by FETAC each year. Despite the relatively small share, the number of supplemental awards has more than tripled in the three years since 2007, going from 456 in 2007 to 1,281 in 2009. Supplemental awards were made almost exclusively for courses in heating, gas, biomass, solar installation and safety in gas installation. All recipients were males in 2009 and were more likely to be in the older age cohorts (approximately 31% were aged 40 or over, a decline on the 36% share in 2007).



Chapter 6 Higher Education (Undergraduate - Levels 6-8)

Key Points

- **CAO Acceptances:** there were almost 45,600 CAO acceptances (NFQ 6-8) in 2009, an 8% increase on 2008; at level 8, numbers have been rising steadily (by an average of 6% annually) in recent years and reached 31,420 in 2009
- **Graduate Output:** there were almost 40,000 graduates at levels 6-8 in 2008; almost two thirds were at level 8; graduate output at level 8 grew by 6% but declined at levels 6 and 7 by 33% and 11% respectively over the period 2005-2008
- **Outlook:** steady increases in the CAO acceptances, particularly at level 8, should ensure further increases in overall graduate output
- **Engineering:** CAO acceptances increased across all levels between 2008 and 2009; the decline in graduate output at level 8 that occurred between 2006 and 2007 seems to have halted in 2008 and may even be reversed in the medium term due to the 16% rise in CAO acceptances for this discipline over the period 2008-2009
- **Construction:** following the downturn in the construction sector, courses in construction experienced significant declines in acceptances across all levels in 2009; while graduate output at levels 6 declined between 2007 and 2008, it continued to grow at levels 7 and 8; however, declines in graduate output are likely at all levels in the short-medium term due to the fall-off in CAO acceptances
- **Computing:** CAO acceptances increased significantly at levels 7 and 8 in 2009. While there were small increases in graduate output at levels 6 and 7, and while graduate output at level 8 declined by 11% year-on-year, it was not as severe as the previous year (20%). The growth in CAO acceptances observed in recent years indicate that a reversal of this trend is likely in the short-medium term
- **Science:** CAO acceptances increased across all levels between 2008 and 2009, particularly at levels 7 and 8. Graduate output at level 8 increased by 10% in this discipline between 2007 and 2008, reversing the downward trend of previous years; the 40% increase in the number of CAO acceptances between 2006 and 2009 indicates that this upward trend is likely to continue into the medium term.

6.1 Introduction

Chapter 6 is the first of three chapters in this report devoted to higher education in Ireland. Here the focus is on the flows into and out of higher education at undergraduate level while the following chapter examines flows into and out of higher education at postgraduate level. The third higher education chapter looks at the destination of students on graduation.

Undergraduate education includes programmes leading to a higher certificate (NFQ 6), an ordinary bachelor degree (NFQ 7) or an honours bachelor degree (NFQ 8). Learning outcomes associated with



these levels are outlined in Appendix B. The aim of this section is to provide as comprehensive an overview as possible of the supply of skills emerging from undergraduate level higher education by examining those intending to enter, those already in, and students emerging from Irish higher education programmes spanning levels 6-8 on the NFQ.

The first section of this chapter focuses on CAO acceptance data with the aim of indicating students' choices on entering higher education. Enrolment data, which is examined in Section 6.3, shows the total number of students enrolled in undergraduate higher education; the number of students graduating is provided in Section 6.4. The time series examined here is four years rather than five years since much of the data at levels 6 and 7 is only available separately since 2005. The final section of this chapter compares Ireland's performance internationally in terms of graduate output at undergraduate level.

6.2 CAO Acceptances

In Ireland, higher education institutions have delegated to the Central Applications Office (CAO) the task of processing applications to their first year undergraduate courses. The majority of those entering full-time higher education at levels 6, 7 and 8 apply for their desired courses through the CAO although in some cases foreign and mature students may apply directly to the education provider.

CAO course acceptances are not the same as student enrolments. Some acceptors do not enrol and some seek deferment. Nonetheless, as CAO acceptance data becomes available shortly after and acceptance data provides a good indicator of the number of first year entrants to programmes at levels 6-8.

6.2.1 CAO Acceptances by NFQ Level

Figure 6.1 provides the total number of CAO acceptances by NFQ level for the period 2006-2009. Over this period, the total number of people who accepted a place on a full-time undergraduate course in Irish higher education grew by a fifth, going from almost 39,000 in 2006 to almost 45,600 in 2009. The greatest increase occurred between 2008 and 2009 when numbers increased by 8% or almost 3,500 in absolute terms.

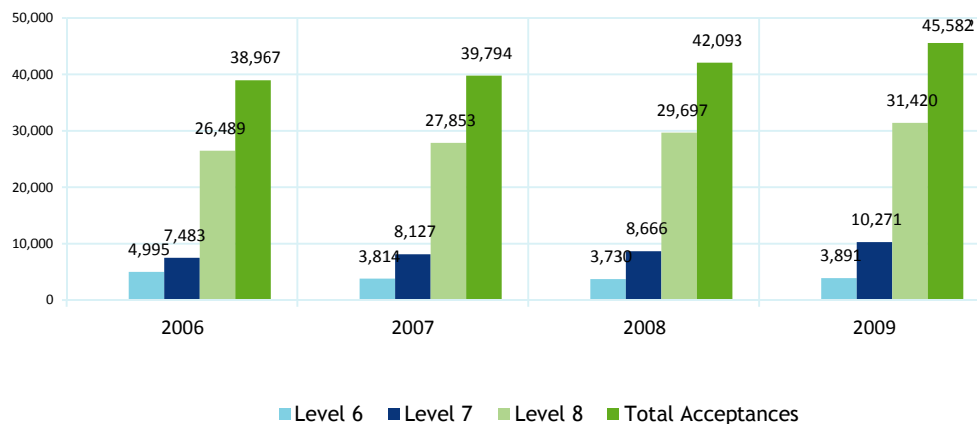
Level 6: Although CAO acceptances at level 6 experienced an increase of 4% between 2008 and 2009, they fell by more than a fifth over the period 2006-2009. Their share of total CAO acceptances also decreased from 13% in 2006 to 9% in 2009. Overall, 1,100 fewer people accepted a place on a level 6 programme in 2009 compared to 2006.

Level 7: Acceptances at this level have been increasing steadily over the time period in question with a 19% (or 1,723 in absolute terms) increase year-on-year between 2008 and 2009. Level 7 acceptances also grew in terms of share, going from 19% to 23% over the four year period.



Level 8: The number of acceptances for level 8 programmes has been rising steadily (by an average of 6% annually) in recent years, growing from almost 26,500 in 2006 to 31,420 in 2009.

Figure 6.1 CAO Total Acceptances by level, 2006-2009*



Source: CAO

6.2.2 CAO Acceptances by Age

Table 6.1 provides a breakdown of CAO acceptances by age group and NFQ level for 2006-2009. With the exception of 16-17 year olds at level 7/6, the number of acceptances increased for all age categories over the period examined. The increases were most significant for those aged 23 and over who saw a rise of 108% for level 7/6 courses and 44% for level 8 courses between 2006 and 2009. For those aged 23 and over, males accounted for the greater share of the increase in acceptances at both levels 7/6 and 8 between 2008 and 2009, at 66% and 73% respectively.

Table 6.1 CAO Acceptances by age 2006-2009

Age	Level 7/6				Level 8			
	2006	2007	2008	2009	2006	2007	2008	2009
16-17	5,454	5,303	5,351	5,523	12,628	13,043	13,847	13,930
18-22	5,374	5,337	5,521	6,118	11,049	12,021	12,841	13,791
23+	1,211	1,418	1,540	2,518	2,576	2,784	3,012	3,701
Total	12,039	12,058	12,412	14,159	26,253	27,848	29,700	31,422

Source: CAO Directors Reports

6.2.3 CAO Acceptances by Discipline

This section examines the distribution of CAO acceptances by discipline and NFQ level (as illustrated in Tables 6.2). The time period for comparisons covers 2008 and 2009.

In 2009, the disciplines with the greatest number of acceptances differed according to NFQ level. At level 6 and 7, for example, CAO acceptances were more likely to be in technology related subjects than they were at level 8: between 40% and 45% of acceptances at levels 6 and 7 were in technology but just 23% of the total at level 8. On the other hand, humanities and arts made up almost a third of level 8 acceptances but just 1% and 9% of level 6 and 7 acceptances.

Table 6.2 CAO Acceptances by Discipline, Level 6-8, 2009

	Level 6		Level 7		Level 8	
	Acceptances 2009	% Change 08-09	Acceptances 2009	% Change 08-09	Acceptances 2009	% Change 08-09
Engineering	712	+29%	1,570	+21%	1,395	+16%
Construction	288	-36%	1,115	-10%	1,041	-17%
Computing	153	-1%	1,123	+41%	1,380	+37%
Science	419	7%	803	+81%	3,511	+19%
Total Technology	1,572	2%	4,611	+22%	7,327	+14%
Health & Welfare	117	-16%	350	+43%	4,159	-2%
Agriculture and Veterinary	184	47%	295	-3%	485	+28%
Total Health, Vet & Agriculture	301	14%	645	+17%	4,644	+9%
Arts and Humanities	47	0%	884	+12%	9,974	+5%
Social Sciences, Business and Law	1,836	9%	2,736	+13%	6,687	+3%
Education	27	50%	104	+8%	2,229	-2%
Services	108	-38%	1,291	+25%	559	+25%
Total Other	2,018	5%	5,015	+16%	19,449	+2%
TOTAL	3,891	4%	10,271	+18%	31,420	+6%

Source: CAO

Technology

In 2009, technology acceptances totalled over 13,500, a 15% rise on the preceding year. Over half of these were at level 8, over a third at level 7 and the remaining 12% at level 6.



Engineering: acceptances increased across all levels between 2008 and 2009. At level 8, there was a 16% rise counteracting to some extent the declines observed in the preceding two years.

Construction: Following the downturn in the construction sector, courses in construction have experienced significant declines in acceptances across all levels in 2009. Level 6 acceptances had the most notable decline falling by a third since 2008. At level 8 acceptances declined by 17% year-on-year between 2008 and 2009. These declines are not expected to recover in the short-term.

Computing: in 2009, the number of persons accepting places on computing courses increased significantly at levels 7 and 8. Level 8 had the highest number of computing acceptances in 2009, at 1,380 which was a 37% increase on the previous year and a 49% increase since 2006.

Science: Level 8 acceptances, which make up approximately three quarters of all those in this discipline, have been increasing steadily in recent years with a year-on-year increase of 41% between 2008 and 2009. This was due to both an increase in the number of persons accepting places on general science courses and the introduction of new courses such as biomedical science. At level 7, acceptances increased by 81% due largely to the introduction of a number of new courses relating to forensic analysis and pharmaceutical science. Acceptances at level 6 declined in recent years from an already small base, although they recovered slightly in 2009.

CAO Acceptances (NFQ 6-8): Health, Veterinary & Agriculture

Health and Welfare: The vast majority (83%) of healthcare course acceptances were for level 8 programmes; most of the remainder is comprised of level 7 acceptances with level 6 making up just a 5% share in 2009. The decline in the number of acceptances at level 8 is due chiefly to a reduction in the number of places allocated for nursing.

Agriculture & Veterinary: The overall number of acceptances for this discipline increased between 2008 and 2009. However, given the comparatively small base, the growth in absolute terms was modest.

CAO Acceptances (NFQ 6-8): Other Disciplines

Arts & Humanities: Acceptances in this discipline were predominantly at level 8. At almost 10,000, the arts & humanities discipline accounted for 32% of all acceptances at level 8 in 2009, an increase of 5% since the previous year.

Social Science, Business & Law: At level 6, while an increase in acceptances of 9% occurred between 2008 and 2009, this is still less than the number of acceptances in recent years. This is due primarily to a reduction in the numbers taking legal and business studies courses. At level 7, acceptances also increased in the period examined. While increases at level 8 have been modest, this discipline alone accounted for almost a fifth of all level 8 CAO acceptances in 2009.



Services: The numbers of acceptances on services courses are small for level 6 and 8 but accounted for 13% of all acceptances at level 7. An increase of 25% occurred year-on-year at level 8 due, in part, to new sports-related courses.

6.2.4 CAO Applicant Data 2010

CAO applicant statistics from February 1st 2010 give early indications of trends emerging for those potentially entering the higher education system in September 2010, although it should be borne in mind that CAO applicant data does not equal future enrolments. The key points from the first round of CAO Applicant data for 2010 include:

- **Technology:** While an increase in the number of 1st preference applications has occurred for engineering, computing and science courses across all levels, construction has seen declines in the number of applicants at level 8 and particularly at levels 7/6.
- **Health, Veterinary & Agriculture:** Increases in the number of 1st preference applications to courses in these disciplines has occurred year-on-year at all levels.
- **Other Disciplines:** While 1st preference applicants to education courses at level 7/6 increased, some declines occurred at level 8. Business and law courses saw a decline in interest across all levels whereas services experienced an upsurge in interest at all levels.
- **Student Statistics:** An increase has occurred in the number of mature students applying for higher education courses through the CAO system along with an increase in the number of applicants who hold FETAC qualifications.

6.3 Undergraduate Enrolments

This is the first time undergraduate enrolments have been included in the Monitoring Ireland's Skills Supply series of reports. While enrolment data lags behind that of CAO acceptance data (by one academic year), enrolment data is useful as it captures part-time students and others who may have entered higher education directly rather than through the CAO. In addition, while CAO acceptance data is a good indicator of entry to higher education enrolment data is more accurate as some CAO acceptors may not actually go on to enrol in higher education. Enrolment data also indicates the total number of people studying at higher level in any given year providing a picture of the overall magnitude of higher education at undergraduate level.

Figure 6.2 shows the total number of undergraduate enrolments by NFQ level over the period 2005-2008. In 2008, there were 138,580 undergraduate enrolments in Irish higher education, an increase of 11% on 2005 and a 1% increase on 2007. These increases did not occur evenly across the three NFQ levels: the largest increase, in both relative and absolute terms, was at level 7 which grew by approximately one half to reach 30,119 in 2008. Level 8 enrolments rose by 10% (or 9,282 in absolute terms) over the same four-year period. At level 6 enrolments declined by in excess of 5,000 although increases may occur for 2009 given the slight increase in CAO acceptances for that year.

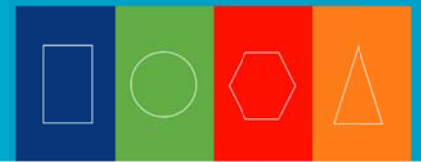
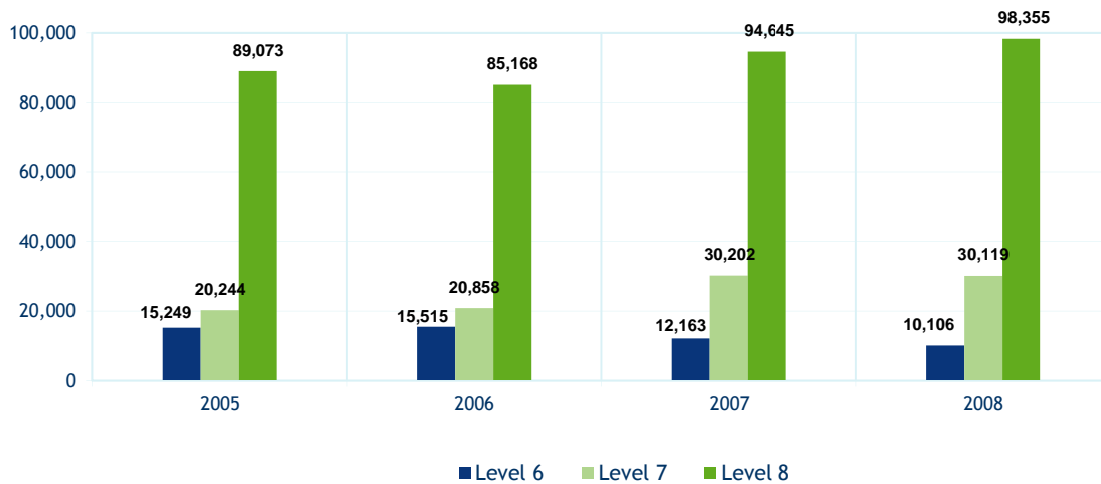


Figure 6.2 Total Enrolments by level (6-8), 2005-2008



Source: HEA

6.3.1 Enrolments: Student Details

This section examines the student profile of those enrolling in higher education at undergraduate level by providing details of the gender and institution type attended (i.e. IoT vs university), mode of study and age.

Provider Type and Gender

Level 6: Males account for the majority of enrolments at this level. However, due to a reduction in the overall number of males enrolled, their share declined slightly from 57% to 55% over the period 2005 -2008. More than four fifths of all enrolments at this level were in institutes of technology.

Level 7: Males also account for the majority of enrolments at level 7. The increase in the number of enrolments at level 7 was strong for both genders, but particularly so for males with their share increasing from 51% in 2005 to 58% in 2008. IoTs also dominate at this level making up 90% of enrolments.

Level 8: The pattern observed for enrolments at levels 6 and 7 is reversed for level 8: more than one half of all student enrolments is female and almost three quarters of enrolments are in the university sector.



Table 6.3 Enrolments by Provider Type and Gender, Level 6-8, 2008

	Level 6			Level 7			Level 8		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
IoTs	5,045	3,663	8,708	16,274	10,820	27,094	11,665	14,172	25,837
Universities	552	846	1,398	1,220	1,805	3,025	30,305	42,200	72,505
Total	5,597	4,509	10,106	17,494	12,625	30,119	41,970	56,372	98,342

Source: HEA

Full-time/Part-time

The proportion of part-time students enrolled has increased for both level 6 and 7 courses, but particularly for level 6 with an increase from 12% to 52% between 2005 and 2007 (detailed in Table 6.4). Level 8 enrolments have maintained a similar share of full-time and part-time enrolments over the four year period.

Table 6.4 Undergraduate Enrolments by Full-time/Part-time and level, 2005-2008

	Level 6				Level 7				Level 8			
	2005	2006	2007	2008	2005	2006	2007	2008	2005	2006	2007	2008
Full-time	88%	63%	48%	52%	83%	74%	74%	83%	95%	95%	94%	95%
Part-time	12%	37%	52%	48%	17%	26%	26%	17%	5%	5%	6%	5%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: HEA

Age

Level 6: The majority (79%) of those enrolled in full-time education at level 6 in the higher education sector are aged 22 or less. However, those in part-time education at this level are in the older age cohorts. When compared with level 7, as detailed in the figure below, the proportion of full-time students enrolled in level 6 courses are more skewed to the younger age cohorts. This is expected as level 6 courses tend to be shorter 1-2 year programmes.

Level 7: This level had the highest proportion of persons enrolled aged 23 and over, at 22%. The part-time enrolments are skewed towards the older age cohorts with the majority of students at all levels aged 30 and over.

Level 8: More than four fifths of full-time students were aged 22 or less; on the other hand the vast majority of part-time students were aged 23 or more (94%).

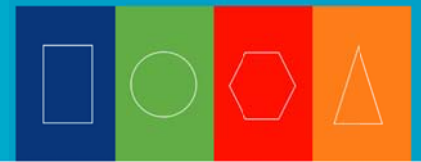
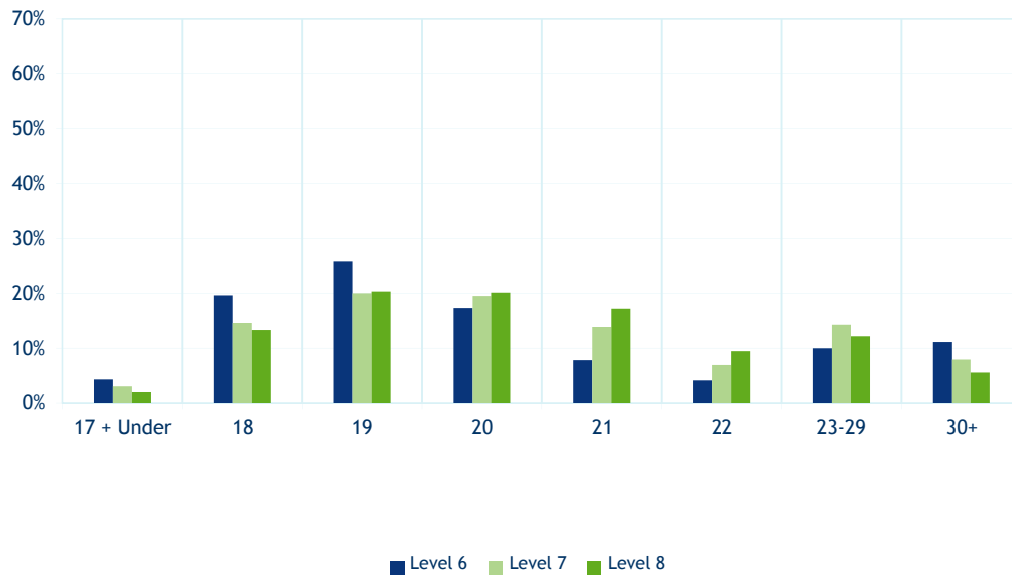
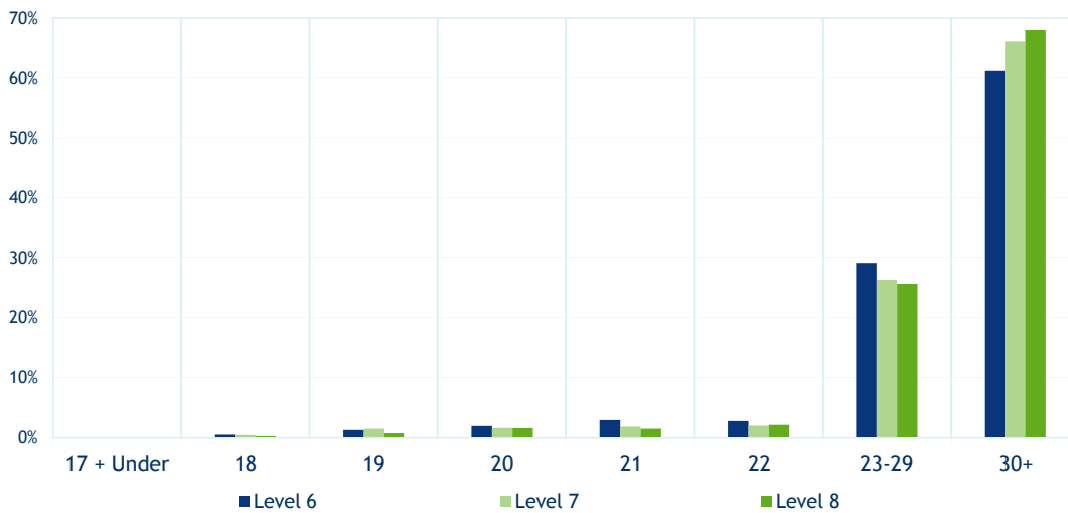


Figure 6.3 Full-time Enrolments by Age and Level, 2008 (%)



Source: HEA

Figure 6.4 Part-time Enrolments by Age and Level, 2008 (%)



Source: HEA



6.3.2 Enrolments by Discipline

Table 6.5 shows the number of undergraduate enrolments by discipline for each NFQ levels 6-8. The 'other' category has the largest share of enrolments for each NFQ level making up over half of all enrolments at levels 6 and 8 and 45% of level 7 enrolments. Technology subjects make up the second largest category, although shares range from almost a quarter at level 8 to over 40% at level 7. Almost 20% of level 8 enrolments were in health, vet and agriculture but only 12% of level 6 and 14% level 7 were in this discipline.

Table 6.5 Enrolments by Discipline and Level, 2008

Discipline	Level 6	Level 6 %	Level 7	Level 7 %	Level 8	Level 8 %
Engineering & manufacturing	1,364	13%	4,239	14%	5,460	6%
Construction	993	10%	4,074	14%	4,126	4%
Computing	751	7%	2,245	8%	3,230	3%
Science	371	4%	1,568	5%	10,192	10%
Total Technology	3,479	34%	12,126	41%	23,008	24%
Agriculture/Veterinary	180	2%	861	3%	1,200	1%
Health & Welfare	1,025	10%	3,393	11%	18,822	19%
Total Health, Vet & Agriculture	1,205	12%	4,254	14%	20,022	20%
Arts & Humanities*	971	9%	3,277	11%	20,144	21%
Education	343	3%	105	0%	5,614	6%
Social Sciences, Business & Law	3,427	34%	6,537	22%	27,313	28%
Services	804	8%	3,630	12%	1,751	2%
Total Other	5,545	54%	13,549	45%	54,822	56%
Total All	10,229	100%	29,929	100%	97,852	100%

Source: HEA

*Note: includes combined studies

Technology

There were almost 39,000 students enrolled on technology related courses in 2008. Level 7 had the highest proportion of technology courses, at 41%. At level 8, the highest number of technology enrolments was for science courses whereas at level 6 it was for engineering and manufacturing courses.



Health, Veterinary & Agriculture

Almost 19,000 students were enrolled on level 8 courses in health and welfare subjects. Enrolments in health and welfare courses accounted for 10% and 11% of level 6 and 7 enrolments respectively. Agriculture and veterinary courses made up a relatively small proportion of enrolments at all level (between 1% and 3%).

Other Disciplines

Social sciences, business and law had the highest proportion of enrolments across all levels. A further 21% of all enrolments at level 8 were in arts and humanities.

6.4 Undergraduate Output

The latest graduation data is for 2008 while disaggregated data for level 6 and 7 is only available from 2005 onwards; this sub-section examines trends for the period 2005-2008. There were almost 40,000 graduates at levels 6-8 in 2008. Of these, 65% were at level 8, 23% at level 7 and 12% at level 6. The number of graduates at level 6 and level 7 declined by 33% and 11% respectively over the period from 2005 to 2008, while graduate numbers at level 8 increased by 6%.

Level 6: The decline in graduate numbers at level 6 is expected to continue as there have been no signs of recovery in enrolments as yet, although the small increase in CAO acceptances in 2009 suggests that graduations at this level could rise from 2011.

Level 7: On the other hand, declines in graduate output at level 7 are expected to reverse in the short term due to the recent upsurge in enrolments at this level (a 50% increase between 2006 and 2007).

Level 8: At this level, it is likely that graduate numbers will not show any major increases in the short-term, although an examination of CAO acceptances and enrolments shows that the steady growth that has been observed in recent years is likely to continue in the medium term.



Figure 6.5 Total Graduate Output by level (6-8), 2005-2008



Source: HEA, IoTs (to 2006)

6.4.1 Graduate Output: Student Details

This section examines the student profile of those graduating from higher education at undergraduate level by providing details of the gender, institution type attended (i.e. IoT vs university) and mode of study.

Provider Type and Gender

Level 6: The IoTs continue to be the main provider of level 6 courses with almost two thirds of all graduates in this sector; nonetheless, universities have seen an increase in their share of graduates, particularly females. While IoT graduate numbers declined over the period 2005 to 2008 by 49%, the number of graduates from universities increased by 55%. Over one half of graduates at this level were male.

Level 7: A similar pattern occurs at level 7; while the IoTs continue to have the greater share of graduates (78%) at this level, they have seen a drop in graduate numbers of 17% while university output experienced an increase of 19% over the period 2005-2008. While there are more males graduating from IoTs at this level, there are more females than males graduating from universities.

Level 8: Females dominate in the graduate output of both IoTs and universities with a 54% and 61% share respectively. The proportion of males versus females graduating at level 8 has remained



virtually unchanged over the period between 2005 and 2008. Two thirds of graduate output at this level is from the university sector.

Table 6.6 Graduate Output by Provider Type, Gender and level, 2008

	Level 6			Level 7			Level 8		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
IoTs	1,750	1,324	3,074	3,850	3,269	7,119	3,880	4,640	8,520
Universities	826	892	1,718	748	1,311	2,059	6,842	10,788	17,630
Total	2,576	2,216	4,792	4,598	4,580	9,178	10,722	15,428	26,150

Source: HEA

Mode of Study: Full-time/Part-time

Table 6.2 shows the distribution of full- and part-time students, by NFQ level for 2007 and 2008. Although the share of part-time students at level 8 remained unchanged at 8% between 2007 and 2008, it increased at levels 6 and 7 over the 12-month period. The increase was particularly pronounced at level 6 where part-time students outnumbered full-time students.

Table 6.7 Undergraduate Output by Full-time/Part-time and level, 2007-2008

	Level 6		Level 7		Level 8	
	2007	2008	2007	2008	2007	2008
Full-time	4,150	2,185	6,714	6,326	24,099	24,051
Part-time	2,171	2,607	2,626	2,852	1,972	1,962
Total	6,321	4,792	9,340	9,178	26,071	26,013

Source: HEA

6.4.2 Graduate Output by Discipline

This section examines graduate output by discipline for levels 6 and 7 (Table 6.8) and level 8 (Table 6.9) over the period 2007-2008.

The breakdown by broad discipline is similar for levels 6 and 7 with over 50% of graduate output in the 'other' category, followed by approximately 30% in technology related subjects.



Table 6.8 Level 6 and 7 Graduate Output by Discipline, 2007-2008

Discipline	Level 6			Level 7		
	2007	2008	% Change 2007-08	2007	2008	% Change 2007-08
Engineering & manufacturing	646	507	-22%	794	797	0%
Construction	806	489	-39%	1,137	1,249	10%
Computing	236	264	12%	410	416	1%
Science	206	194	-6%	405	496	22%
Total Technology	1,894	1,454	-23%	2,746	2,958	8%
Agriculture/Veterinary	143	70	-51%	302	288	-5%
Health & Welfare	429	448	4%	944	1,038	10%
Total Health, Vet & Agriculture	572	518	-9%	1,246	1326	6%
Arts & Humanities*	418	284	-21%	1,333	1,243	-7%
Education	68	252	271%	87	143	64%
Social Sciences, Business & Law	2,221	1,236	-44%	2,848	2,459	-14%
Services	1,148	1,048	-9%	1,080	1,049	-3%
Total Other	3,855	2,820	-27%	5,348	4,894	-8%
OVERALL Total	6,321	4,792	-24%	9,340	9,178	-2%

Source: HEA

*Also includes studies in general and combined fields

Technology (Level 6 and 7)

At level 6, computing was the only discipline to increase in numbers over the period from 2007 to 2008. Output on construction courses fell by 39% while engineering and manufacturing graduate output declined by 22%. At level 7, technology-related courses increased by 8%, with the greatest percentage increase occurring for science courses, at 22%.

Health, Veterinary & Agriculture (Level 6 and 7)

Agriculture and veterinary courses experienced a decline in graduate output at both levels 6 and 7, although the numbers involved are relatively small. The number of graduates from health and welfare courses increased by 4% and 10% at levels 6 and 7 respectively.

Other Disciplines (Level 6 and 7)

At level 6, education courses were the only courses to experience an increase, from 68 to 252. Output from social sciences, business and law courses declined by 44% over the period examined. At level 7, education also increased significantly albeit from a small base. Social sciences, business and law courses had the highest percentage decline across all disciplines at this level, at 14%. Table 7.3 sets out the total number of level 8 graduates by discipline for 2007 and 2008.



Table 6.9 Level 8 Graduate Output by Discipline, 2007 & 2008

Level 8 graduates	2007	2008	% Change
Engineering & Manufacturing	1,489	1,482	0%
Construction	1,092	1,369	25%
Computing	976	868	-11%
Science	2,280	2,516	10%
Total Technology	5,837	6,235	7%
Agriculture/ Veterinary	302	267	-12%
Health & Welfare	4,385	4,170	-5%
Total Health, Vet. & Agriculture	4,687	4,437	-5%
Arts & Humanities	5,398	4,808	-11%
Education	1,811	1,574	-13%
Social Sciences, Business & Law	7,740	8,523	10%
Services	598	573	-4%
Total Other	15,547	15,478	-1%
OVERALL TOTAL	26,071	26,150	0%

Source: HEA

Technology (Level 8)

- **Engineering:** The decline in graduate output that occurred between 2006 and 2007 seems to have halted in 2008 and may even be reversed in the medium term due to the 16% rise in CAO acceptances for this discipline over the period 2008-2009.
- **Construction:** A further increase in graduate output occurred in 2008 but this is likely to reverse in the coming years with the significant drop-off in students accepting places on construction-related courses in 2009.
- **Computing:** Although graduate output declined by 11% year-on-year, it was not as severe as the previous year (20%). Indeed, the accelerating increases in CAO acceptances observed in recent years indicate that a reversal of this trend is likely in the short-term.
- **Science:** Graduate output increased by 10% in this discipline between 2007 and 2008, reversing the downward trend of previous years. The 40% increase in the number of CAO acceptances between 2006 and 2009 indicates that this upward trend is likely to continue into the medium term.



Healthcare, Veterinary & Agriculture (Level 8)

- Health and welfare: With a decline of 5% in 2008, graduate output returned to its 2006 level. The reduced allocation for places in nursing will further negatively impact on output in the short-medium term.
- Agriculture/Veterinary: This discipline also experienced a decline of 12%, albeit the numbers involved are small.

Other Disciplines (Level 8)

- Arts & Humanities: Graduate output levels in this discipline remained static between 2006 and 2007 and then declined by 11% in the period 2007-2008.
- Education: The 13% reduction in graduate output partly reverses the increase of 31% in the preceding years.
- Social Sciences, Business & Law: This discipline continues to increase each year, with a 10% increase occurring in this period.
- Services: A decline of 4% occurred in output in this discipline, although the numbers involved are very small.

6.5 International Comparison

In this section we present the findings of an OECD survey of education entitled ‘Education at a Glance 2009’ in order to compare Ireland’s performance in terms of undergraduate output with that of other countries. To date, no cross-classification of NFQ award levels and OECD data (which is classified according to ISCED levels) is available and any comparison between graduate output by NFQ level and international data will only be approximate. However, the ISCED definitions of education levels that correspond to Irish higher education are as follows:

ISCED Level	Corresponds to :
Level 5: Tertiary Type B	Higher Certificate/Ordinary Bachelor Degree
Level 5: Tertiary Type A (First Degree)	Honours Bachelor Degree
Level 5: Tertiary Type A (Second or Further Degree)	Postgraduate Qualifications (except PhD)
Level 6: Advanced Research Qualifications	PhD

At undergraduate level, Irish higher education programmes correspond broadly to the ISCED categories level 5 Tertiary Type B and Tertiary Type A (first degree).

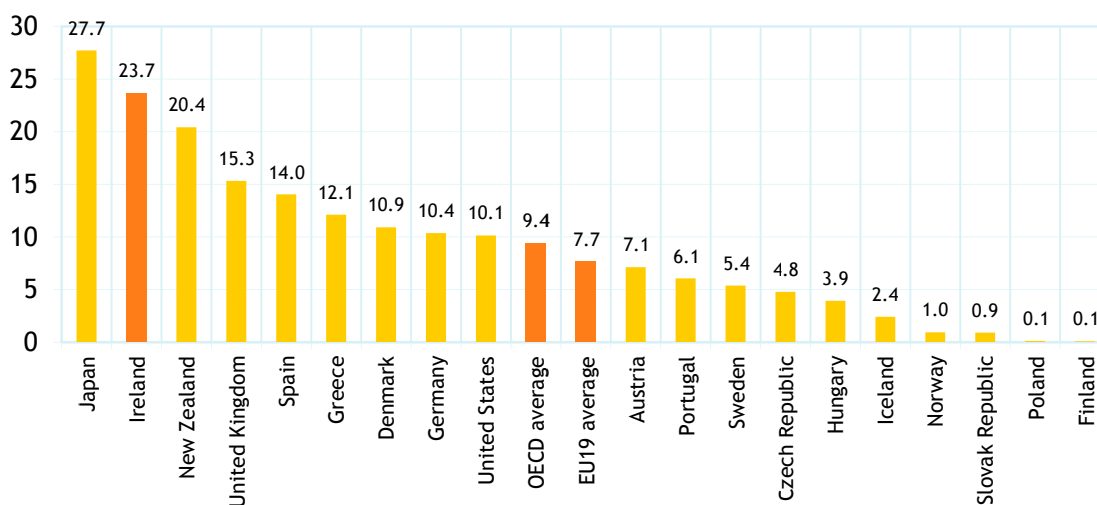
The graduation rates from Tertiary Type B programmes across selected OECD countries are presented in Figure 6.6 In 2007, 23.7% of the relevant age cohort in Ireland obtained a qualification corresponding to a higher certificate/ordinary degree. Only Japan had a higher graduation rate at this level. This share is considerably higher than the OECD average of 9.4% and more than three



times the EU 19 average of 7.7%. The profile of Ireland's performance internationally has changed little in recent years, ranking consistently above the OECD and EU averages.

It should be noted that not all countries have higher education programmes at this level; in Finland, for example, this type of education is being phased out and the number of students enrolled at this level is almost negligible.

Figure 6.6 Share of Tertiary Type B Graduates to the Population in Selected OECD Countries, 2007

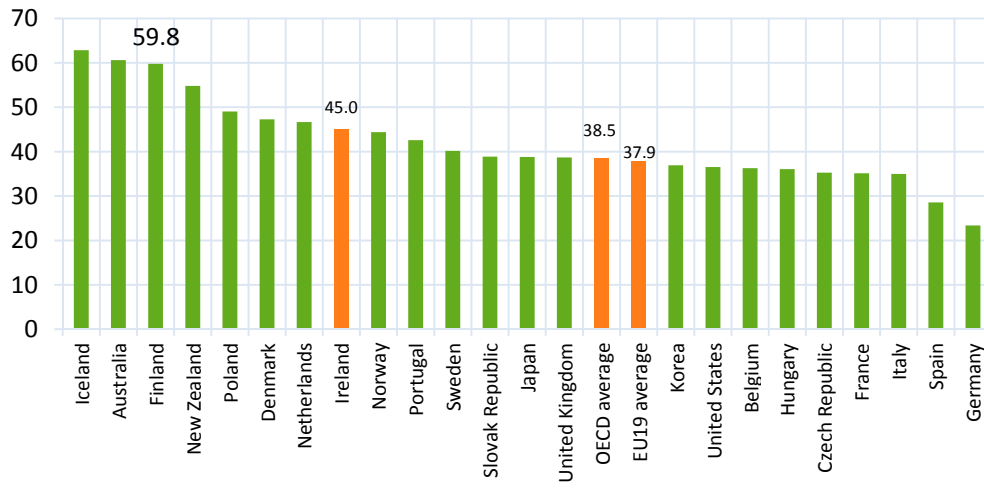


Source: Education at a Glance 2009

The graduation rates for OECD countries at Tertiary Type A level (first degree), corresponding to honours bachelor degree level in Ireland, are presented in Figure 6.x. At 45%, Ireland's graduation rate is well above the OECD and EU averages of 38.5% and 37.9% respectively. It nonetheless lags behind that of the top performers such as Iceland, Australia and Finland where graduation rates are approximately 60% or higher. This is the first year where Tertiary Type A level education data has been available at a disaggregate level, allowing a comparison for Ireland for honours bachelor degree level.



Figure 6.7 Tertiary Type A (First Degree) Graduation Rates, 2007



Source: OECD (Education at a Glance 2009)



Chapter 7 Postgraduate Higher Education

Key Points

- **Enrolments** totalled almost 31,800 in 2008, including 7,250 for doctoral programmes
- **Graduate output:** there were almost 15,200 graduates in 2008, an increase of almost 20% since 2004; PhD awards increased by almost 50% to over 1,100 since 2004
- **Outlook:** the steady increases in postgraduate enrolments (by an average of 9% annually since 2006) indicates that output at this level will also continue to increase in the coming years
- **Engineering and manufacturing:** Graduate output across all award types declined by 8% over the period 2007-2008; while growing enrolments indicate a rise in PhD awards in the medium-term, increases are unlikely at postgraduate cert/diploma and master's level in the short-term due to the declines in enrolments for these programmes observed between 2007 and 2008
- **Construction:** despite the 27% increase in graduate output, this level of growth is not expected to continue due to the recent fall in the number of enrolments at masters' level
- **Computing:** enrolments and graduate output have remained mostly static across all programme types
- **Science:** this discipline has the largest share of enrolments on PhD programmes which have continued to increase year-on-year (11% in 2008); small declines occurred for the other two programme types. Science graduates accounted for one third of all PhDs in 2008.

7.1 Introduction

This chapter focuses on the supply of skills emerging from higher education programmes at postgraduate level which span levels 9 and 10 on the National Framework of Qualifications. Master degrees and postgraduate diplomas (first stage of a master degree) are placed at level 9 with doctoral degrees at level 10. For presentation purposes higher diplomas from universities and all postgraduate diplomas, whether conversion or leading to a master degree, are discussed in this chapter. The learning outcomes associated with a level 9 or level 10 award are outlined in Appendix B.

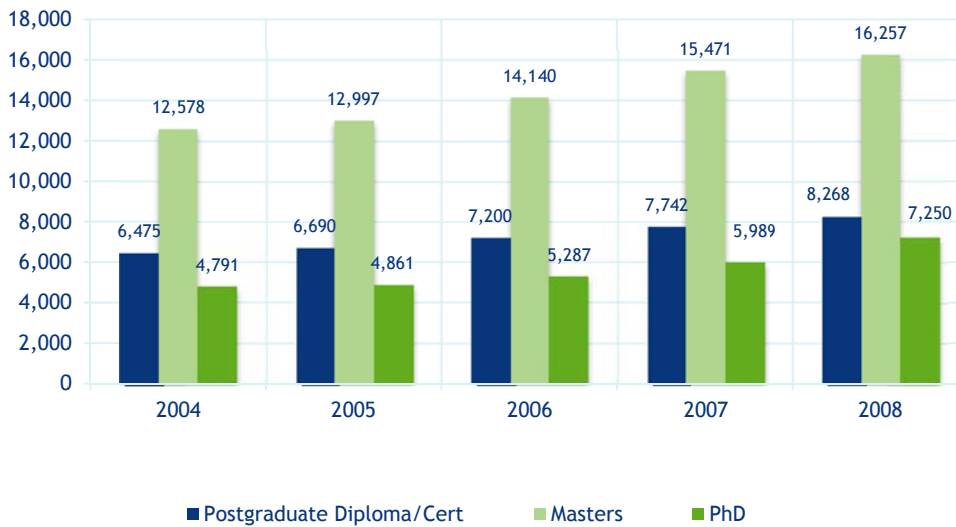
First, the total number of postgraduate students enrolled in higher education at levels 9 and 10 is provided. This is followed by an analysis of graduate output at these levels. Variables examined for both enrolment and graduation data include a discipline breakdown and student details (such as gender, higher education sector attended, etc.). The final section provides an international perspective on how Ireland's performance in terms of graduate output at postgraduate level compares with that of other OECD countries.



7.2 Level 9/10 Enrolments

There were almost 31,800 postgraduate students enrolled in Ireland's universities and IoTs in 2008. Enrolments on level 9 and 10 courses have been increasing steadily in recent years, by an average of 9% each year since 2006. Most notably for the period 2007-2008, PhD student enrolments increased by 21%, while postgraduate certs/diplomas courses increased by 7% and masters enrolments saw an increase of 5%.

Figure 7.1 Level 9/10 IoT and University Enrolments, 2004-2008



Source: DES, HEA

7.2.1 Postgraduate Enrolments: Student Details

This section examines the student profile of those enrolled in postgraduate programmes by providing details of the gender, institution type attended (i.e. IoT vs university), mode of study and age.

Gender and Provider Type

The gender distribution of postgraduate students varies depending on the programme type. In 2008, postgraduate certs/diplomas and masters had a higher proportion of female students, with 68% and 53% respectively, while PhD students were more likely to be male (51%). Universities had the highest number of postgraduate enrolments across all levels when compared with IoTs.



Table 7.1 Enrolments by Provider Type and Gender, 2008

	Postgraduate Certs /Diplomas		Masters		PhD	
	Males	Females	Males	Females	Males	Females
IoTs	343	379	1,772	1,712	251	203
Universities	2,322	5,224	5,926	6,847	3,471	3,324
Total	2,665	5,603	7,698	8,559	3,722	3,527

Source: HEA

Full-time/Part-time

Postgraduate certs/diplomas: Enrolments in these courses are nearly equally divided between full- and part-time students, although at 53% in 2008, the slight majority are enrolled in full-time courses. The proportion of part-time students enrolled increased by one percentage point over the period 2007 to 2008.

Masters: Almost two thirds of those enrolled in masters courses are in full-time education; this share remained unchanged over the period examined.

PhDs: 87% of all students enrolled in PhD programmes are studying full-time. The share did not change over the period 2007 to 2008.

Table 7.2 Enrolments by Full-Time and Part-Time Status, 2007 and 2008

	Postgraduate Certs /Diplomas		Masters		PhD	
	2007	2008	2007	2008	2007	2008
Full-time	54%	53%	61%	61%	87%	87%
Part-time	46%	47%	39%	39%	13%	13%
Total	100%	100%	100%	100%	100%	100%

Source: HEA

Age

Postgraduate certs/diplomas: This category had the highest share of students enrolled aged 30 and over.

Masters: Those enrolled on masters courses have the largest share of students aged between 17 and 22, at 16%. This is most likely due to the progression of students directly from their honours bachelor degree course.

PhDs: The highest proportion of students enrolled on PhD programmes is aged between 23 and 29.

Table 7.3 Postgraduate Enrolments by Age, 2008

	Postgraduate Certs /Diplomas	Masters	PhDs
17-22	10%	16%	4%
23-29	43%	42%	52%
30+	45%	42%	41%
Age Unknown	2%	1%	3%
Total	100%	100%	100%

Source: HEA

7.2.2 Level 9/10 Enrolments by Discipline

Table 7.4 details student enrolments by discipline and programme type for 2007 and 2008. In 2008, education had the highest share of postgraduate cert/diploma enrolments at 42%; more than one third of master degree enrolments were in social sciences, business and law, and 24% of all PhD enrolments were enrolled in science courses.

Table 7.4 Level 9/10 Enrolments in Higher Education by Discipline, 2007-2008

	Postgraduate Certs/Diplomas		Masters		PhD	
	2007	2008	2007	2008	2007	2008
Engineering & Manufacturing	174	145	1158	1,082	750	862
Construction	112	172	315	301	86	115
Computing	238	209	1313	1,349	458	471
Science	249	218	1217	1,083	1567	1,751
Total Technology	773	744	4003	3,815	2,861	3,199
Agriculture/ Veterinary	1	26	81	80	156	184
Health & Welfare	2,176	2,025	2,137	2,319	652	888
Total Health, Vet. & Agriculture	2,177	2,051	2,218	2,399	808	1,072
Arts & Humanities*	348	384	2,382	2,650	1,092	1,523
Education	2,831	3,491	964	1,069	231	319
Social Sciences, Business & Law	1,404	1,377	5,519	5,909	950	1,082
Services	209	221	385	415	47	55
Total Other	4,792	5,473	9,250	10,043	2,320	2,979
OVERALL TOTAL	7,742	8,268	15,471	16,257	5,989	7,250

*includes general and combined studies

Source: HEA



Technology

- Engineering and manufacturing: While total enrolments remained constant between 2007 and 2008, increases at PhD level masked declines in master degree and postgraduate cert/diploma enrolments.
- Construction: The 15% rise in total enrolments is due primarily to an increase at postgraduate cert/diploma, chiefly in architecture.
- Computing: There were few changes in this discipline across all programme types.
- Science: This discipline has the largest share of enrolments on PhD programmes which have continued to increase year-on-year (11% in 2008). Small declines occurred for the other two programme types.

Health, Agriculture and Veterinary

- Agriculture & Vet: The numbers involved are small, but increases were observed for both postgraduate certs/diplomas and PhDs.
- Health & Welfare: While declines occurred for postgraduate certs/diplomas, increases in enrolments occurred for masters and particularly PhD programmes. At PhD level, 62% of enrolments were in the area of medicine and diagnostics

Other Disciplines

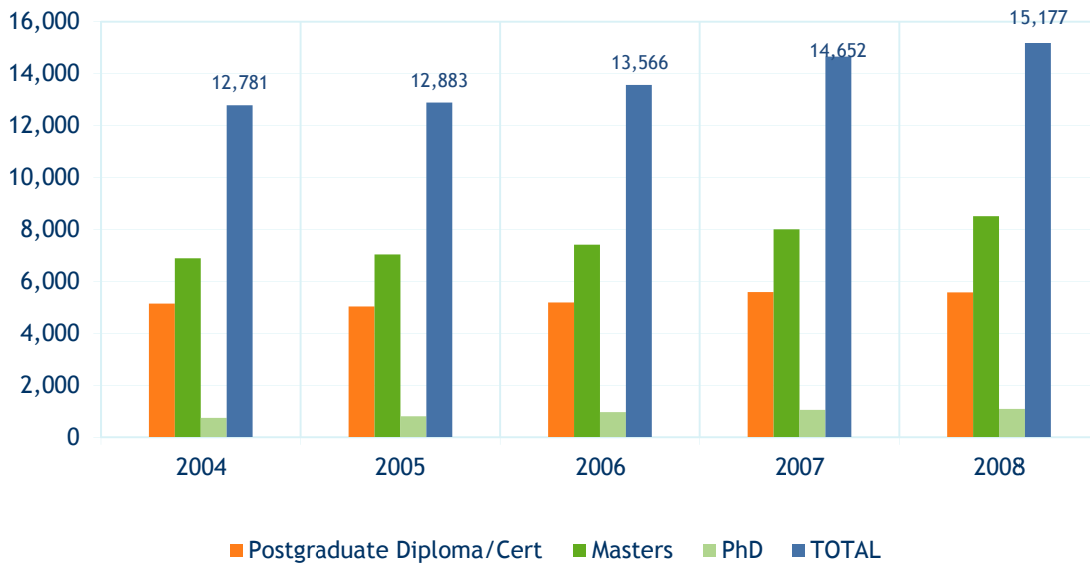
- Humanities & Arts: Significant increases across all programme types are related to the increases in general and combined studies which are included in this discipline.
- Education: This discipline has the largest share of enrolments on postgraduate cert/diploma programmes which have increased significantly since 2007, from 2,831 to 3,491, an increase of 23%.
- Social science, business & law: This discipline has the largest share of enrolments on masters programmes with an increase of 7% occurring between 2007 and 2008 in this programme type; there was also a 14% increase in the number of PhD enrolments over the same period.
- Services: Slight increases occurred across all programme types.

7.3 Level 9/10 Graduates

As shown in Figure 7.2, a total of 15,177 students graduated with a postgraduate qualification in 2008; of these, 37% were postgraduate certs/diplomas, 56% were masters and 7% for PhD programmes. Postgraduate output has been continually increasing in recent years, with a 19% increase over the period 2004 to 2008; the number of PhDs awarded over this period increased by almost 50%.



Figure 7.2 Level 9/10 Graduate Output by Award Type, 2004-2008



Source: HEA

7.3.1 Graduate Details

This section examines the student profile of those emerging from postgraduate programmes by providing details of the gender and institution type attended (i.e. IoT vs university) and mode of study.

Provider Type & Gender

Universities were the predominant provider of postgraduate courses across all programme types. In terms of gender in 2008, females accounted for two thirds of postgraduate cert/diploma graduates, 56% at masters level and 51% at PhD level (Table 7.5). Although enrolments in PhD courses were primarily male (Table 7.1), graduate output is more equally divided between the genders.

Table 7.5 Graduates by Provider Type and Gender, 2008

	Postgraduate Certs /Diplomas		Masters		PhD	
	Males	Females	Males	Females	Males	Females
IoTs	318	334	614	645	31	38
Universities	1,553	3,371	3,136	4,115	506	516
Total	1,871	3,705	3,750	4,760	537	554

Source: HEA



Full-time/Part-time

The distribution of awards by mode of study is detailed in Table 7.6 by programme type:

- Postgraduate certs/diplomas: The proportion of part-time graduates has been increasing over the period 2006 to 2008.
- Masters: Part-time graduates are also on the increase at masters level.
- PhDs: In contrast to part-time graduate output, the proportion of students graduating from full-time PhD programmes increased from 81% in 2006 to 86% in 2008.

Table 7.6 Graduates by Full-Time and Part-Time Status, 2008

	Postgraduate Certs /Diplomas			Masters			PhD		
	2006	2007	2008	2006	2007	2008	2006	2007	2008
Full-time	66%	63%	60%	73%	71%	70%	81%	82%	86%
Part-time	34%	37%	40%	27%	29%	30%	19%	18%	14%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: HEA

7.3.2 Level 9/10 Graduates by Discipline

Table 7.7 compares the distribution of level 9/10 graduates by discipline for 2007 and 2008.

Increases in graduate output occurred for most disciplines, except engineering & manufacturing, arts and humanities, and services.

Table 7.7 Level 9/10 Graduations by Discipline, 2007-2008

Level 9/10 graduates	2007				2008				% Change
	PG Cert/Dip	Masters	PhDs	Total	PG Cert/Dip	Masters	PhDs	Total	
Engineering & Manufacturing	97	362	143	602	93	340	124	557	-8%
Construction	51	161	16	228	85	182	22	289	+27%
Computing	167	594	83	844	164	612	79	855	+1%
Science	142	387	356	885	202	409	362	973	+10%
Total Technology	457	1,504	598	2,559	544	1,543	587	2,674	+4%
Agriculture/ Veterinary	0	29	23	52	0	40	30	70	+35%
Health & Welfare	1,575	695	131	2,401	1,395	1,077	115	2,587	+8%
Total Health, Vet. & Agriculture	1,575	724	154	2,453	1,395	1,117	145	2,657	+9%
Arts & Humanities*	285	1,608	134	2,027	221	1,488	163	1,872	-8%



Social Sciences, Business & Law	1,294	3,397	138	4,829	1,180	3,647	161	4988	+3%
Education	1,858	530	20	2,408	2,093	512	22	2627	+9%
Services	123	242	11	376	143	202	14	359	-5%
Total Other	3,560	5,777	303	9,640	3,637	5,849	360	9,846	+2%
OVERALL TOTAL	5,592	8,005	1,055	14,652	5,576	8,509	1,092	15,177	+4%

*includes general and combined studies

Source: HEA

Technology

- Engineering & manufacturing: The overall number of level 9/10 graduates in this discipline declined by 8% year-on-year between 2007 and 2008, with declines occurring across all programme types.
- Construction: While this discipline experienced a 27% increase in graduate output; this level of growth is not expected to continue due to the recent fall in the number of enrolments at masters' level.
- Computing: This discipline remained largely unchanged over the time frame examined.
- Science: This discipline had the highest number of PhDs at 362 in 2008, making up a third of all PhDs awarded that year. The largest increases in this discipline occurred in output for postgraduate cert/diplomas, at 42%.

Health, Vet and Agriculture

- Agriculture & Vet: While a 35% increase occurred year-on-year, this was from a small base.
- Health & Welfare: Although the number of graduates from postgraduate cert/diplomas decreased year-on-year (by 11%), those graduating with a masters degree increased by 57% typically in courses relating to therapy rehabilitation and counselling.

Other Disciplines

- Arts & Humanities: Overall graduate output in this discipline decreased by 8%, primarily due to the decline in output for masters' programmes.
- Social science, business & law: This is the largest discipline at postgraduate level, and grew by 3% year-on-year; the decline in the number of postgraduate cert/diplomas awarded was outweighed by a 7% increase at masters level.
- Education: The largest share of graduates in this discipline obtained postgraduate cert/diplomas; output from this programme type has been increasing steadily in recent years and is expected to continue in the short-term due to the 23% rise in enrolments since 2007.
- Services: This discipline decreased by 5%, albeit from a small base.

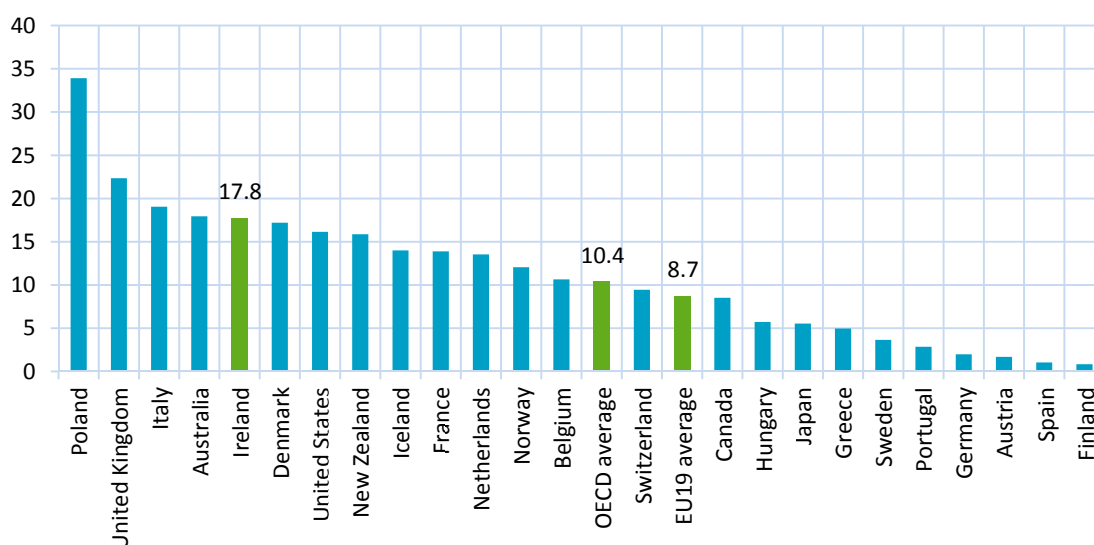


7.4 International Comparison

Ireland's performance in terms of graduate output at postgraduate level is examined in this section, based on the findings of an OECD report (Education at a Glance 2009). As detailed previously in Chapter 6, there is no cross-classification of awards on the NFQ with ISCED education levels (which is used by the OECD). However, master degrees correspond to Tertiary Type A (Second Degree) qualifications and doctoral degrees correspond to Advanced Research Programmes.

Figure 7.3 compares the graduation rates from Tertiary Type A (Second Degree) programmes for selected OECD countries. At 17.8%, Ireland's graduation rate at this level is well above the OECD average (10.4%) and is twice the EU average (8.7%). Overall, Ireland ranks fourth in terms of graduate output at this level, and well behind the top country (Poland) with a rate of 33.9%.

Figure 7.3 Graduation Rate (%) for Selected OECD Countries at Type A (Second Degree), 2007

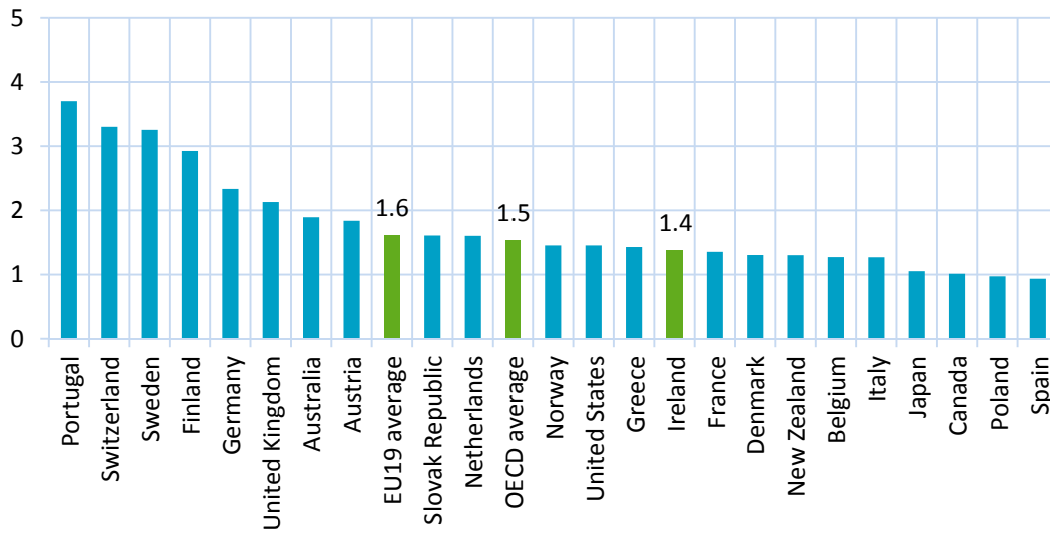


Source: OECD (Education at a Glance 2009)

The graduation rates from Advanced Research Programmes in selected OECD countries are presented in Figure 7.4. Ireland lags behind the EU and OECD averages with a rate of just 1.4% compared to 1.6% and 1.5% for the EU and OECD averages respectively. Ireland's graduation rate at doctoral level is less than half that of the top performers such as Portugal, Switzerland and Sweden which each have graduation rates of 3.3% or higher.



Figure 7.4 Graduation Rate (%) for Selected Countries at Advanced Research Level, 2007



Source: OECD (Education at a Glance 2009)



Chapter 8 Where Do Graduates Go?

Key Points

- Almost three quarters of level 6/7 graduates went on to further study and training in 2007; over one half of level 8 graduates entered employment with a further third entering further studies or training; level 9/10 had the highest proportion of persons in employment both in Ireland and overseas
- In quarter 4 2009, 85% of all level 8-10 graduates aged 25-34 were at work, a decline of 2% since the beginning of 2008; their unemployment rate increased from 3% to 7%
- Those who studied education were the most likely to be at work in quarter 4 2009; graduates from the services discipline had the highest rate of unemployment
- Over the period quarter 1 2008 to quarter 4 2009, the likelihood of those with qualifications in engineering and construction to work in this field decreased and were more likely to work in science related occupations (mainly as software engineers)
- Graduates are significantly more likely than non-graduates to work in professional and associate professional occupations.

8.1 Introduction

This chapter focuses on where graduates go after attaining a higher level qualification. We begin with a summary of the findings of the First Destination Survey (FDS) report which is produced annually by the HEA and surveys Irish graduates nine months after graduation. Based on the Central Statistics Office (CSO) Quarterly National Household Survey (QNHS), we also provide an analysis of the principal economic status (PES) of young graduates (25-34 years) in the Irish labour force, i.e. whether at work, unemployed, student or other. From this data, it is also possible to examine the education field of graduates' highest education attainment and, if at work, their occupation and the sector in which they are employed.

8.2 First Destination Report

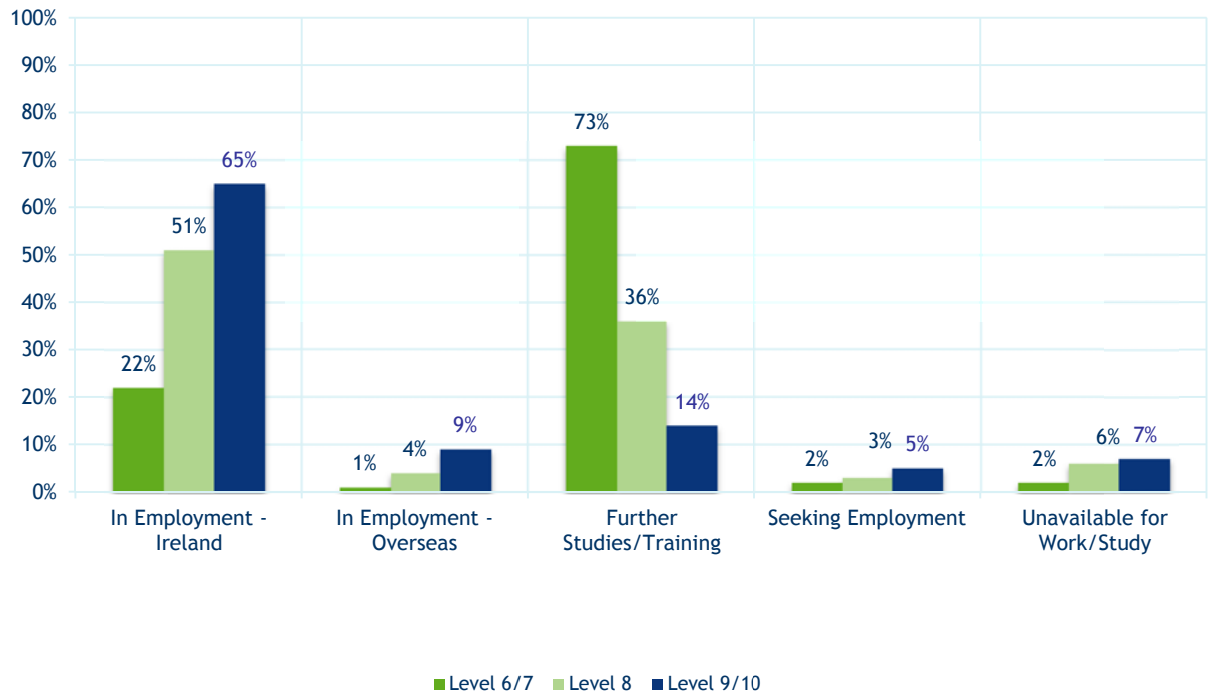
This analysis is based on a recent publication from the HEA entitled 'What Do Graduates Do? The Class of 2007' (HEA: 2009). This report produced findings from a survey of the 2007 graduates nine months after graduation and examines if they have gained employment, are in further study, or are seeking employment. As this is an examination of the status of graduates as of April 2008 it is not thought to capture the effects of the economic downturn.

Figure 8.1 shows the first destination of the 2007 graduates at levels 6-10 on the NFQ. Level 9/10 had the highest proportion of persons in employment in Ireland and overseas, whereas level 6/7 had



the greatest proportion of graduates going on to further study. Just over one half of level 8 graduates entered employment with a further third entering further studies or training.

Figure 8.1 First Destination of All Higher Education Graduates, 2007



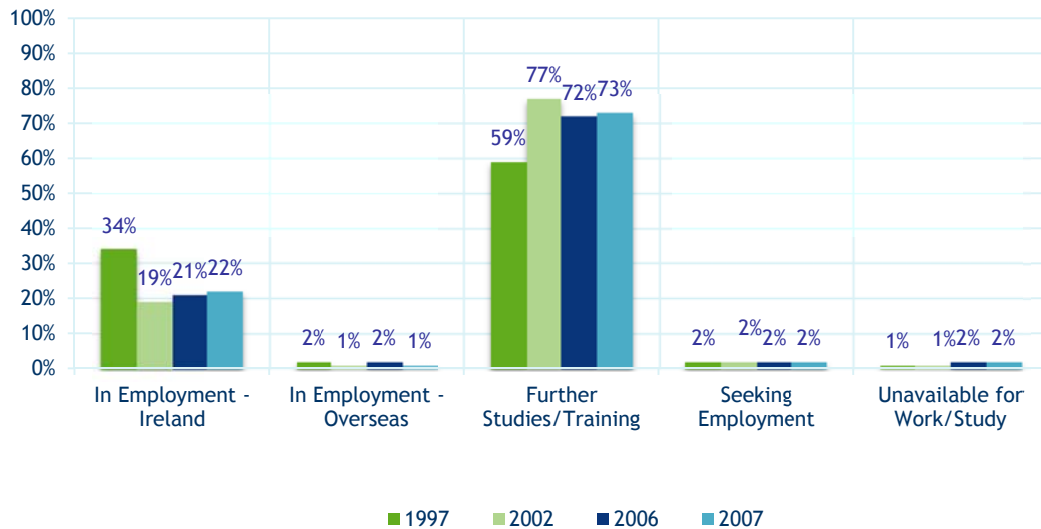
Source: HEA

8.2.1 First Destination by NFQ Level

When the first destination of graduates from level 6/7 programmes is examined over time, the data (presented in Figure 8.2) shows that while the share of graduates undertaking further studies/training peaked at 77% in 2002 it declined slightly to 73% in 2007. The percentage in employment in Ireland has increased since 2002, although it is still well below the 1997 share of 34%.



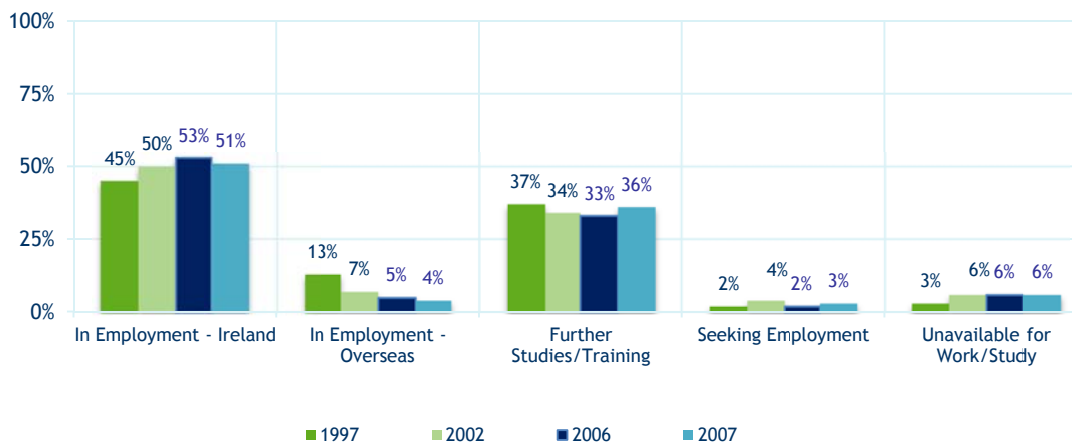
Figure 8.2 First Destination of Level 6/7 Graduates, 1997-2007



Source: HEA

The proportion of level 8 graduates in employment in Ireland peaked in 2006 at 53%, with a decline of two percentage points occurring in 2007 (as per Figure 8.3). The proportion of graduates in employment overseas has been declining in recent years although this may see a reverse in future surveys due to Ireland's economic downturn and an increase in outward migration. Although some fluctuations have occurred, at least one third of level 8 graduates went on to further study or training in each of the years examined. The share of those unavailable for work or study doubled between 1997 and 2002 but has remained almost constant since then.

Figure 8.3 First Destination of Level 8 Graduates, 1997-2007

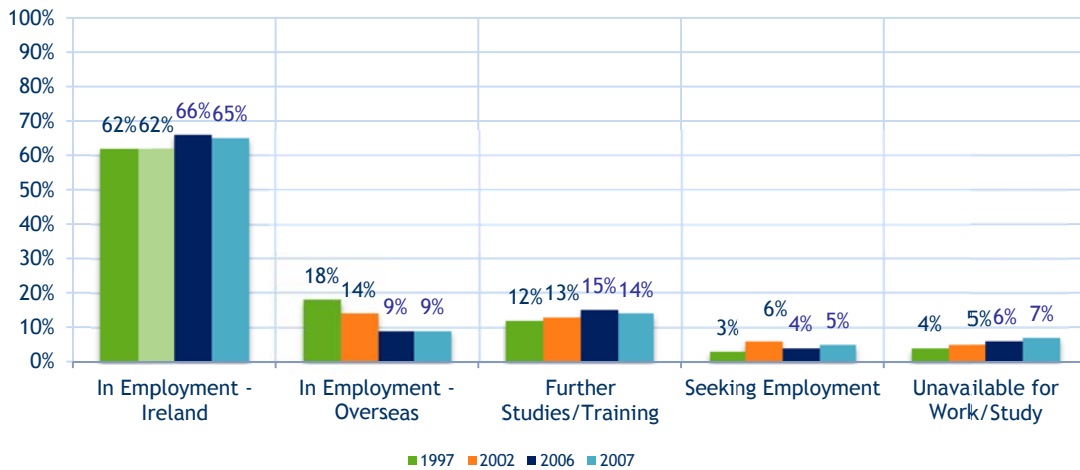


Source: HEA

In 2007, 65% of all graduates from level 9/10 courses were in employment in Ireland, with a further 9% in employment overseas (Figure 8.4). The proportion employed overseas has been declining in recent years while the percentage of those unavailable for work/study has been increasing.



Figure 8.4 First Destination of Level 9/10 Graduates, 1997-2007



Source: HEA

8.2.2 Destination by Employment and Sector

Table 8.1 shows the sectors in which the 2007 graduates are employed in Ireland. Over two thirds of all graduates with level 8-10 qualifications who are employed in Ireland work in non-market services. A further 15% are employed in business, finance and insurance services while the remainder is distributed across other sectors.

Table 8.1 Employment Sectors of Levels 8-10 Graduates Employed in Ireland

Sectors of employment	Total %
Agriculture, Forestry & Fisheries	0%
Manufacturing Industries	4%
Electricity, Gas & Water Supply	0%
Building & Construction	1%
Distribution	2%
Business, Finance & Insurance Services	15%
Computing & Software Applications	1%
Transport, Storage & Communication	1%
Non Market Services	68%
Personal & Recreational Services	2%
Professional Services nec	2%
Other Industries or Industry Not Stated	3%
Total	100%

Source: SLMRU Analysis based on HEA (FDS) data



8.3 Quarterly National Household Survey (QNHS)

The focus of this section is on the skills that are currently available amongst young graduates in Ireland's labour force today. For the purposes of this analysis we examine only those aged 25-34 years as this age cohort is the closest proxy for recent graduates from higher education. Based on the CSO's QNHS, the educational attainment of recent graduates is analysed as well as their employment profile.

The QNHS is a survey which is run every quarter by the CSO and captures data on a wide range of variables. Included in these variables are questions on an individual's current principal economic status (PES) (i.e. at work, unemployed, student, home duties, other), the highest level of education attained, the education field and, for those in employment, their occupation and the sector in which they are employed.

As this survey collects data on respondents' education attainment, it is possible to examine the economic status of third level graduates in Ireland and to identify their field of education. However, it should be borne in mind that the education field refers to the field of learning from the highest qualification attained and as such may mask a person's primary degree i.e. those with a computing degree may go on to attain an MBA and would therefore be captured in the social science, business & law category rather than in computing. Due to recent changes by the CSO in their presentation of the QNHS data, quarter 1 2008 is used as the baseline for comparison²⁰; quarter 4 2009 is the latest data available.

8.3.1 Graduates in the Population

A total of 776,000 persons in the population in Ireland were aged between 25 and 34 in quarter 4 2009 (see Table 8.2 below). Of these, over 211,000, or 27%, had attained a third level degree or above (corresponding to NFQ levels 8-10). For the purposes of this report this level of attainment will be henceforth referred to as level 8+. A further 144,000, or 19%, had attained a third level non-degree qualification (corresponding to NFQ levels 6-7). As the First Destination Survey indicates, approximately three quarters of all those who attain a level 6/7 qualification in higher education go on to further study. For this reason, this report focuses on those more likely to be recent entrants to the workforce, i.e. those with level 8+ qualifications.

²⁰ At the beginning of 2009, the QNHS was produced on a calendar quarter basis (i.e. Jan-Mar) whereas previously it had been on a seasonal quarter basis (i.e. Dec-Feb). For comparison purposes, the CSO made calendar quarter 1 2008 available to the SLMRU and therefore all data produced here refers to calendar quarter data. Changes have also occurred in relation to the analysis of education attainment data; however, this change is thought to have a greater effect on those with lower levels of education attainment.

Table 8.2 Population Aged 25-34 by Education Attainment, Q4 2009

	Total	%
Third level degree or above (NFQ Level 8+)	211,700	27%
Third level non-degree (NFQ Level 6/7)	143,900	19%
Leaving Cert and FET (NFQ Level 4/5)	288,200	37%
Lower Secondary or less (NFQ Level 3 or less)	94,900	12%
Other/Not stated	37,300	5%
Total	776,000	100%

Source: SLMRU analysis of CSO data (QNHS)

8.3.2 Economic Status of Graduates

Table 8.3 focuses on the economic status of 25-34 year olds with level 8+ qualifications. In 2009, 85% of all graduates at this level were at work, which is a decline of 2% since the beginning of 2008. The rate of unemployment for this grouping increased from 3% to 7%.

For both time periods, female graduates outnumbered males both overall and in terms of those at work. The total numbers of those at work declined by 20,000; almost two thirds of this decline was due to a reduced number of females at work. Males however were more likely to be unemployed with 3% in quarter 1 2008 rising to 8% in quarter 4 2009 compared to 2% and 5% for females for the same time periods.

Table 8.3 Principal Economic Status (PES) of Level 8+ Graduates aged 25-34 by Gender, Q1 2008 and Q4 2009²¹

	Q1 2008				Q4 2009			
	Total Male	Total Female	Total	% of Total	Total Male	Total Female	Total	% of Total
At Work	87,800	112,600	200,400	87%	80,700	100,200	180,900	85%
Unemployed	3,200	3,100	6,300	3%	7,800	6,400	14,300	7%
Student	5,500	6,800	12,300	5%	4,800	4,100	8,900	4%
Total	96,500	122,500	219,000	95%	93,300	110,700	204,100	96%

Source: SLMRU analysis of CSO data (QNHS)

²¹ Home duties and 'other' categories have been excluded from this table as the numbers involved are too small to report.



8.3.3 Economic Status of Graduates by Field of Learning

Table 8.4 compares the economic status of those with level 8+ qualifications by field of education between quarter 1 2008 and quarter 4 2009. People who studied education were the most likely to be at work in both time periods; health and welfare had the second highest proportion of persons at work, at 91%. While 90% of engineering graduates were at work in quarter 1 2008, this dropped to 80% in quarter 4 2009. Graduates in science, mathematics and computing had a relatively low share of people at work but at larger share undertaking further studies, categorised in the Table under the 'Other' column. At 12%, services had the highest proportion of unemployed persons in quarter 4 2009, an increase from 1% in quarter 1 2008.

Table 8.4 Education Field of those Aged 25-34 with Level 8+ Qualifications by PES, Q1 2008 and Q4 2009

Education Fields	Q1 2008				Q4 2009			
	At work	Unemployed	Other	Total	At work	Unemployed	Other	Total
Education	91%	1%	8%	100%	92%	4%	4%	100%
Humanities and Arts	83%	4%	14%	100%	81%	10%	9%	100%
Social sciences, Business & Law	89%	2%	9%	100%	88%	5%	7%	100%
Science, Maths & Computing	81%	4%	15%	100%	80%	8%	12%	100%
Engineering, Manuf. & Const.	90%	3%	7%	100%	80%	11%	9%	100%
Agriculture and Veterinary	84%	8%	8%	100%	86%	9%	6%	100%
Health and Welfare	89%	2%	9%	100%	91%	3%	6%	100%
Services	87%	1%	13%	100%	78%	12%	10%	100%
Other	87%	2%	11%	100%	83%	7%	10%	100%
Total	87%	3%	10%	100%	85%	7%	8%	100%

Source: SLMRU analysis of CSO data (QNHS)

8.3.4 Employed Graduates - Education Field

This subsection focuses on the 25-34 year old level 8+ graduates who were in employment. Over a third of all employed graduates held a qualification in social sciences, business and law amounting to 69,000 in quarter 4 2009 (Table 8.5). Females outnumbered males in all categories except science and engineering.

Those with education qualifications were the only category to increase in numbers over the period quarter 1 2008-quarter 4 2009 and this was the case for both males and females. The number of engineering, manufacturing or construction graduates in employment declined by 7,700 - the largest decline over the period; most of this decline was for males.

Table 8.5 Those in Employment Aged 25-34 with Level 8+ Qualifications by Field of Learning, Q1 2008 and Q4 2009

Education Fields	Q1 2008			Q4 2009		
	Total Male	Total Female	Total	Total Male	Total Female	Total
Education	3,500	12,600	16,100	4,000	13,700	17,800
Humanities and Arts	7,200	13,400	20,600	5,900	11,300	17,200
Social sciences, Business and Law	29,400	42,300	71,700	31,300	37,700	69,000
Science, Mathematics and Computing	12,000	9,200	21,200	10,900	7,800	18,700
Engineering, Manufacturing and Construction	23,000	6,200	29,200	16,300	5,200	21,500
Agriculture and Veterinary	2,500	1,300	3,800	1,800	1,900	3,600
Health and Welfare	2,900	17,800	20,700	4,600	14,600	19,100
Services	3,000	4,800	7,800	2,000	2,900	4,900
Other	4,300	5,100	9,400	4,000	5,100	9,100
Total	87,800	112,600	200,400	80,700	100,200	180,900

Source: SLMRU analysis of CSO data (QNHS)

8.3.5 Employed Graduates - Occupational Distribution

This subsection first compares the education discipline of employed graduates with the broad field in which they work providing an estimate of the extent to which people work in areas relating to their third level qualification²². This is followed by an occupational breakdown of all level 8+ graduates and contrasts it with that of the total in employment for this age group (i.e. 25-34 years) to show the extent to which a level 8+ qualification affects the occupation in which one works.

Table 8.6 examines the destination of those in employment by education field and occupation field. Eighty two percent of those with education or health and welfare qualifications work in a similar field. In contrast, only 11% of those who have gained level 8+ qualifications in humanities and arts are employed in this field; 47% are employed in areas relating to social sciences, business and law and a further 18% are employed in education-related occupations.

While the humanities and arts graduates working in education were chiefly teachers at second level, the science graduates working in education were almost exclusively university or IoT lecturers.

²² The field in which an individual worked was categorised by the SLMRU by aligning occupations with International Standard Classification of Education (ISCED) fields of training. Appendix C details the occupations included within each occupational field. It should be borne in mind that the analysis is approximate intended as an indicator of skills matching.



Most social science, business and law graduates work in a related field with approximately one third of these working as chartered accountants or financial managers.

This distribution is broadly in line with that reported in the previous edition of this report (2009: p 28) which reported on quarter 4, 2008. However, those with qualifications in engineering and construction were less likely than they were one year previously to work in this field with an increased share working in science related occupations (mainly as software engineers).

Table 8.6 Occupation Field of Those Aged 25-34 in Employment by Field of Learning, Q4 2009

Occupation Fields	Education	Humanities & Arts	Social sciences, Business & Law	Science, Maths & Computing	Engineering, Manufacturing and Construction	Agriculture & Veterinary	Health & Welfare	Services
Education	82%	18%	5%	10%	6%	11%	1%	2%
Humanities and Arts	0%	11%	1%	0%	2%	0%	0%	0%
Social sciences, Business & Law	6%	47%	74%	17%	15%	22%	5%	31%
Science, Mathematics and Computing	3%	4%	3%	54%	16%	14%	8%	15%
Engineering, Manufacturing & Construction	2%	7%	6%	10%	53%	8%	2%	5%
Agriculture & Veterinary	0%	0%	0%	0%	1%	23%	0%	0%
Health & Welfare	4%	4%	4%	4%	1%	9%	82%	8%
Services	4%	9%	7%	6%	5%	12%	2%	39%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: SLMRU analysis of CSO data (QNHS)

In quarter 4 2009, there were approximately 556,000 25-34 year-olds at work, with 180,939 of these holding level 8+ qualifications. As detailed in Table 8.7, the majority of those in employment with level 8+ qualifications were employed in managerial, professional and associate professional occupations; although the numbers have declined over the period examined, the share has increased by three percentage points from 70% to 73%. This compares to 24% for those aged 25-34 with less than level 8+ qualifications at the end of 2009. Graduates are significantly more likely than non-graduates to work in professional and associate professional occupations and slightly more likely to work as managers and administrators.

Table 8.7 Occupational Breakdown of Those at Work Aged 25-34 by Education Level, Q1 2008 & Q4 2009

	Q1 2008		Q4 2009	
	Level 8+ Grads	All others at work	Level 8+ Grads	All others at work
Managers & Administrators	15%	11%	15%	12%
Professional Occupations	35%	3%	40%	4%
Associate Professional & Technical Occupations	20%	7%	18%	8%
Clerical & Secretarial Occupations	10%	14%	11%	16%
Craft & Related Occupations	4%	19%	2%	15%
Personal & Protective Service Occupations	5%	14%	5%	16%
Sales Occupations	6%	11%	5%	10%
Plant & Machine Operatives	2%	11%	2%	9%
Other Occupations	3%	12%	2%	9%
Total	100%	100%	100%	100%

Source: SLMRU analysis of CSO data (QNHS)

8.3.6 Sectoral Employment of Graduates

Table 8.8 below compares the distribution of level 8+ graduates by sector with all others aged 25-34 years at work. Level 8+ graduates are employed in almost all sectors except agriculture, forestry and fishing. These graduates are more likely to be employed in education, health, professional, financial and IT related sectors than the remainder of this age cohort.

The distribution of graduates by sector has remained largely unchanged over the period examined. In absolute terms, there has been a drop of 50% in the numbers of 25-34 year olds working in construction, for both level 8+ graduates and all others at work.



Table 8.8 Sectoral Employment of those aged 25-34 with level 8+ Qualifications, Q4 2009

Sector	Q1 2008		Q4 2009	
	Level 8+ Grads	All others at work	Level 8+ Grads	All others at work
Agriculture, forestry & fishing	1%	3%	0%	2%
Industry	12%	16%	12%	15%
Construction	3%	18%	1%	7%
Wholesale & retail trade; repair of motor vehicles & motorcycles	7%	18%	8%	14%
Transportation & storage	1%	4%	1%	4%
Accommodation & food service activities	4%	8%	3%	7%
Information & communication	9%	2%	10%	5%
Financial, insurance & real estate activities	11%	5%	12%	8%
Professional, scientific & technical activities	14%	3%	12%	6%
Administrative & support service activities	3%	5%	3%	3%
Public administration & defence; compulsory social security	4%	4%	5%	5%
Education	14%	2%	16%	7%
Human health & social work activities	13%	7%	13%	11%
Other NACE activities	4%	5%	4%	5%
Total	100%	100%	100%	100%

Source: SLMRU analysis of CSO data (QNHS)



Chapter 9 Private Education and Training Provision

Key Points

- HETAC awards made to those pursuing higher education outside the university and IoT sector stood at almost 3,300 in 2009, 60% of which were made at level 8
- Over one half of all HETAC awards in the private/independent sector were in the field of humanities and arts, with a further 38% in business related studies
- Approximately 6,000 individuals obtained a qualification awarded by a professional institute in 2009, mostly in business (e.g. banking, accounting, etc.).

9.1 Introduction

Education and training in Ireland also includes a small, but significant, private sector, comprised of private, independent colleges and professional institutes. Courses offered in private colleges are accredited by a variety of awarding bodies including the Higher Education and Training Awards Council (HETAC) and the National University of Ireland. Professional institutes provide training for occupations such as bankers, accountants, insurance brokers, lawyers, managers, etc. In the main, professional institutes act as their own awarding bodies²³.

There are a number of limitations when gathering awards data for the private sector. First, there is no definitive list of all private education and training provision in Ireland. Second, not all parties involved are in a position to make such data, if held, available for publication. The numbers in this chapter therefore do not reflect the full extent of private education and training in Ireland. Third, it is not possible to make year-on-year comparisons as data received each year is not always from the same providers/awarding bodies.

Given the aforementioned limitations, the data discussed in this chapter represents the minimum number of individuals who obtained a recognised qualification via private education pathways in 2009. First, HETAC awards data for higher education institutions outside of the university and IoT sectors is examined²⁴. The second section provides an overview of the qualifications gained by those pursuing education and training at some of the professional institutes in Ireland²⁵.

²³ The data in this section is not directly comparable with that in the 2008 issue of Monitoring Ireland's Skills Supply as we were unable to obtain (a) data from the same sources as last year and (b) data in a similar format (i.e. at course level). Only professional institutes that act as education or training providers are included in this analysis in order to avoid any double counting which may arise in cases where students must source their own education via private or public bodies.

²⁴ Appendix D details these higher education institutions.

²⁵ Appendix D details these professional institutes.



9.2 Private/Independent Higher Education Graduates

Table 9.1 shows the distribution of HETAC awards by NFQ level and discipline. Approximately 60% of HETAC awards were level 8 awards, with a further 20% at level 7. Level 6 and levels 9/10 awards each accounted for 10% of the total.

More than one half of awards in 2009 were in the arts and humanities category (which includes unspecified fields of learning), mostly at level 8. Business had the second highest share at 38% and made up over 1,260 awards. The remaining 8% of awards was in the science and engineering category.

Overall, almost two thirds of award recipients in 2009 were female; they outnumbered males at all NFQ levels except level 9/10. At levels 9/10 males made up 53% of the awards. In terms of discipline, females dominated in arts and humanities with 77% of awards; males, on the other hand, had the greater share of science and engineering awards at 73%; the gender distribution of awards in by business category was almost balanced with females accounting for a 54% share of these awards.

Table 9.1 HETAC Awards (Private/Independent Colleges), 2009

	Arts, Humanities & Unspecified	Business	Science & Engineering	Total
Level 6	177	150	11	338
Level 7	430	188	31	649
Level 8	1,083	819	89	1,991
Level 9 & 10	79	107	133	319
Total	1,769	1,264	264	3,297

Source: HETAC

9.3 Professional Institutes

Although there are some exceptions, awards made by professional institutes are not made according to NFQ levels. However, in consultation with the main providers, it was possible to discern three broad levels for the programmes they offer: sub-degree, degree-level and postgraduate level. Table 9.2 shows the awards by level made by professional institutes in 2009 (postgraduate awards relate mostly to 2008). Almost 6,000 awards were made by professional institutes that year, one half of which was at sub-degree level; 44% at postgraduate level and the remainder at degree level.

Awards by professional institutes were made predominantly in the areas of banking, accountancy, insurance, tax and law. Postgraduate awards were made predominantly in the areas of



accountancy; degree awards in banking and taxation; the sub-degree category in banking and insurance.

Table 9.2 Professional Institutions Awards by level, 2009*

Level	Total	%
Sub-degree	3,004	50%
Degree	351	6%
Postgraduate	2,619	44%
Total	5,974	100%

*The latest available data for some professional institutes was for 2008; this pertains mostly to awards at postgraduate level.

Source: Professional institutes; IAASA (Irish Auditing and Accounting Supervisory Authority)



Chapter 10 Irish Students Abroad

Key Points

- In 2007, almost 18,000 Irish domiciled students were enrolled in higher education programmes in other OECD countries, 90% in the UK
- Three quarters of these students were enrolled in Tertiary Type A programmes with a further 7% enrolled in advanced research degree programmes
- Enrolments declined by 3%, or 567, between 2006 and 2007, primarily for Tertiary Type A programmes
- Over 2,800 Irish domiciled students accepted a place for higher education studies in the UK in 2009, an 8% rise on 2007
- The number of acceptors was spread evenly across the following three broad categories: technology, health, veterinary and agriculture, and the 'other' category
- Over 5,600 Irish students obtained a third level qualification in the UK in 2009, a 2% increase on 2007; more than one quarter of all graduates were in the field of health, veterinary and agriculture.

10.1 Introduction

This chapter aims to provide an overview of the Irish domiciled students who undertook their studies at higher education institutions outside of the Republic of Ireland. Although data is limited in terms of the detail available, the aggregate data is sufficient to provide information regarding country and broad level of study.

The OECD education statistics include a section on international students, defined either as students who are not permanent or usual residents of their country of study or alternatively as students who obtained their prior education in a different country²⁶. The first section of this chapter focuses on the available data regarding the number of Irish-domiciled students enrolled in third level education in other OECD countries. This is followed by an analysis of the data on Irish students in the United Kingdom (UK) which is available in greater detail; this section examines the number of Irish-domiciled students who accepted an offer of a place to study at higher education institutions in the UK through the UK based Universities and Colleges Admission Service (UCAS)²⁷. The final section, using data provided by the Higher Education Statistics Authority (HESA) in the UK, shows the number of Irish students who graduated from higher education programmes in the UK.

²⁶ International student data excludes numbers relating to those undertaking shorter, temporary courses as part of international exchange programmes such as ERASMUS.

²⁷ UCAS is the organisation responsible for managing applications to higher education courses in the UK and is similar to the CAO in Ireland.

10.2 Irish Students in Other OECD Countries

The OECD Education online database was the data source for this section. This database holds data on the distribution of international students by, inter alia, country of origin and level of education. Levels of education are classified according to ISCED levels; Irish higher education levels correspond to the following ISCED categories: Tertiary Type A (honours bachelor degree/master degree); Tertiary Type B (higher certificate/ordinary degree) or advanced research (PhD level).

As detailed in Table 10.1, there were almost 18,000 Irish-domiciled students enrolled in higher education programmes in other OECD countries. The UK had the highest number with a total of 16,254 (approximately 90% of the total). The United States had the second highest number of Irish students at over 1,100. Three quarters of Irish students abroad are enrolled on Tertiary Type A programmes (comparable to honours bachelor degree and master degree programmes in Ireland) while 7% were in advanced research degree programmes (e.g. doctoral programmes).

The number of Irish domiciled students abroad declined by 3% between 2006 and 2007; much of the decline occurred for students undertaking Tertiary Type A programmes in the UK (- a 4% decline). However, there was a small increase (+ 38 students, or 3%) in the number of those on advanced research programmes over the same period.

Table 10.1 Irish Students' Enrolments in OECD Countries*, 2007

Country	Tertiary A	Tertiary B	Advanced Research	Unspecified	Total
Australia	148	2	21	-	171
Others**	83	10	11	-	104
Canada	60	-	24	-	84
Denmark	99	5	-	-	104
Spain	84	-	5	-	89
Sweden	80	-	-	-	80
United Kingdom	12,947	2124	1,183	-	16,254
United States	-	-	-	1,105	1,105
Total	13,501	2141	1,244	1,105	17,991

* Excluding Ireland ** Others include Belgium, the Netherlands, New Zealand and the Slovak Republic

Source: OECD Education Online Database

10.3 Irish Domiciled Students in the UK

This section looks in greater detail at the Irish-domiciled students in higher education in the United Kingdom - the country with by far the highest number of Irish students. In the first section, the number of Irish students accepting a place in UK higher education is provided and includes a

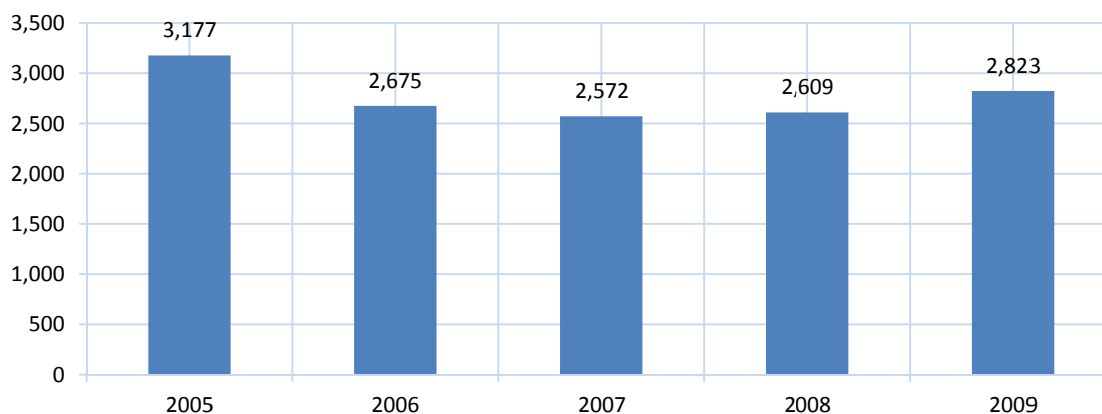


discipline breakdown. This is followed by an overview of the number of students qualifying from UK universities by discipline.

10.3.1 UCAS Acceptors

Over 2,800 Irish domiciled students accepted a place for higher education studies (undergraduate level) in the UK in 2009, an 8% rise on 2007 and the highest number since 2005.

Figure 10.1 Republic of Ireland Domiciled UCAS Acceptors, 2005-2009



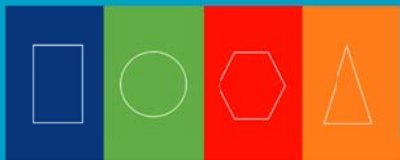
Source: UCAS

Table 10.2 shows the distribution of UCAS acceptors in 2008 and 2009 by discipline. Almost equal numbers of Irish-domiciled acceptors were for courses in the following three broad categories: technology, health, veterinary and agriculture, and the ‘other’ category.

Table 10.2 Republic of Ireland Domiciled UCAS Acceptors by Discipline, 2008-2009

	2008	2009	2008-09 % change
Engineering & Technology	320	305	-5%
Architecture, Building & Planning	190	223	+17%
Science & Computing	367	394	+7%
Total Technology	877	922	+5%
Medicine & Dentistry	76	62	-18%
Subjects Allied to Medicine	782	813	+4%
Agriculture & Vet	80	96	+20%
Total Health, Vet & Agriculture	938	971	+4%
Arts, Humanities & Combined	367	482	+31%
Education	50	77	+54%
Social Science, Business & Law	377	371	-2%
Total Other	794	930	+17%
Overall Total	2,609	2,823	+8%

Source: UCAS



In 2009, 42% of the UCAS acceptors who were domiciled in Ireland were aged 21 or over. The remainder were aged 20 or under. With a 55% share, slightly more females than males accepted a place to study in higher education in the UK.

10.3.2 Irish Domiciled Graduates in the UK

Table 10.3 outlines the number of Irish domiciled graduates in the UK by discipline for the period 2007-2009. Over 5,600 Irish students obtained a third level qualification in the UK in 2009. More than one quarter (almost 1,500) of Irish graduates were in the fields of health, veterinary; a fifth were in social science, business and law and a further 15% were in education. Science and computing graduates made up 14% of the total Irish graduates in the UK in 2008.

Over the period 2007-2009, the number of Irish domiciled students graduating from higher education in the UK grew by 2% (or approximately 100 additional graduates). The most significant increase occurred for graduates in health, vet and agriculture which grew by almost a quarter. Declines were noted in the number graduating in the fields of arts, humanities and combined studies (-19%), science and computing (-12%) and engineering and technology (-13%).

Table 10.3 Irish Domiciled Graduates in UK Higher Education 2007-2009

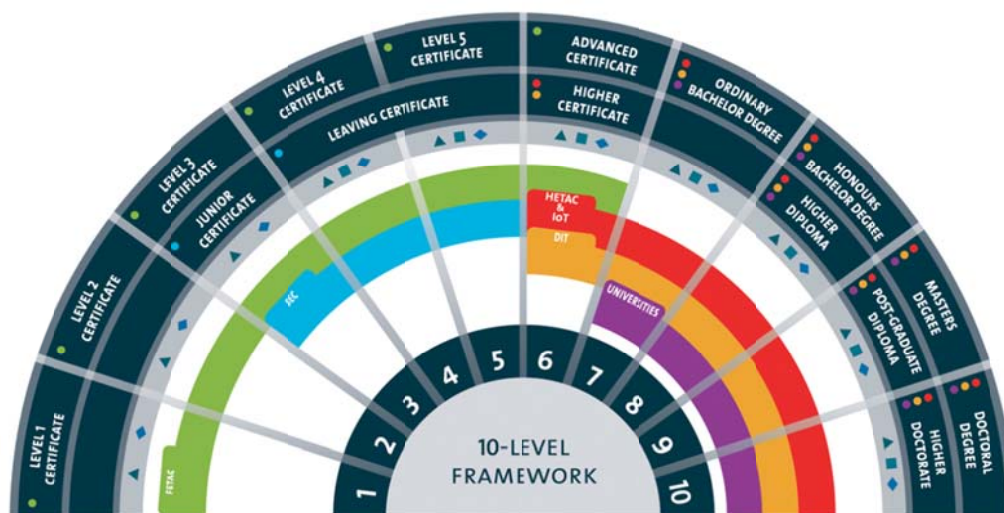
Discipline	2007	2008	2009	% Change 2007-09
Health, vet & agriculture	1,174	1,265	1,455	+24%
Science & computing	779	725	685	-12%
Engineering & technology	521	450	455	-13%
Architecture, building & planning	433	395	455	+5%
Social studies, business & law	963	990	1,100	+14%
Arts, humanities & combined studies	774	685	630	-19%
Education	859	810	825	-4%
Total	5,503	5,320	5,605	+2%

Source: HESA (UK)



Appendix A NFQ Awards

Figure A.1 National Framework of Qualifications



The ‘fan diagram’ above illustrates each of the ten levels on the National Framework of Qualifications, the awarding bodies that make the awards and the major award-types.

Key to Awarding Bodies

- FETAC – Further Education and Training Awards Council
- SEC – State Examinations Commission
- HETAC – Higher Education and Training Awards Council
IoTs – Institutes of Technology
- DIT – Dublin Institute of Technology
- Universities

Key to Awards in the Framework

- ◐ Major Awards
- ▲ Minor Awards
- Supplemental Awards
- ◆ Special Purpose Awards



Appendix B NFQ Learning Outcomes

The National Framework of Qualifications (NFQ) is based on standards of knowledge, skill and competence. The structure of the framework is based on levels which range from level 1 to level 10. Associated with each level is a specified level indicator. Level indicators are broad descriptions of the learning outcomes at a given level in terms of eight sub-strands of knowledge, skill and competence. Outlined below is a synopsis of each level indicator pertaining to NFQ levels 1 - 10, the levels referred to in this report.

Level 1 - The learning outcomes relate to the performance of basic tasks in a controlled environment under supervision and the display of an ability to learn information and basic repetitive skills, as well as to sequence learning tasks. Literacy and numeracy achievements would correspond to those measured at the initial levels of international assessment systems.

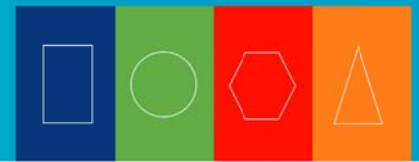
Level 2 - Key outcomes relate are basic literacy and numeracy and the introduction to systematic learning. Learning outcomes relate to the ability to learn new skills and knowledge in a supervised environment and to carry out routine work under direction. Learning outcomes at this level are typically developmental rather than geared towards a specific occupation.

Level 3 - Learning outcomes at this level relate to a low volume of practical capability and of knowledge of theory. The outcomes relate to the performance of relatively simple work and may be fairly quickly acquired. Outcomes at this level may also confer a minimum employability for low-skilled occupations and include functional literacy and numeracy.

Level 4 - Independence is the hallmark of this level. Learning outcomes at this level correspond to a growing sense of responsibility for participating in public life and shaping one's own life. The outcomes at this level would be associated with first-time entry to many occupational sectors.

Level 5 - Learning outcomes at this level include a broad range of skills that require some theoretical understanding. The outcomes may relate to engaging in a specific activity, with the capacity to use the instruments and techniques relating to an occupation. They are associated with work being undertaken independently subject to general direction.

Level 6 - The learning outcomes at this level include a comprehensive range of skills which may be vocationally-specific and/or of a general supervisory nature, and require detailed theoretical understanding. The outcomes also provide for a particular focus on learning skills. The outcomes relate to working in a generally autonomous way to assume design and/or management and/or administrative responsibilities. Occupations at this level would include higher craft, junior technician and supervisor.



Level 7 - Learning outcomes at this level relate to knowledge and critical understanding of the well established principles in a field of study and the application of those principles in different contexts. This level includes knowledge of methods of enquiry and the ability to critically evaluate the appropriateness of different approaches to solving problems. The outcomes include an understanding of the limits of the knowledge acquired and how this influences analyses and interpretations in a work context. Outcomes at this level would be appropriate to the upper end of many technical occupations and would include higher technicians, some restricted professionals and junior management.

Level 8 - Innovation is a key feature of learning outcomes at this level. Learning outcomes relate to being at the forefront of a field of learning in terms of knowledge and understanding. The outcomes include an awareness of the boundaries of the learning in the field and the preparation required to push back those boundaries through further learning. The outcomes relate to adaptability, flexibility, ability to cope with change and ability to exercise initiative and solve problems within their field of study. In a number of applied fields the outcomes are those linked with the independent, knowledge-based professional. In other fields the outcomes are linked with those of a generalist and would normally be appropriate to management positions. Those holding a Level 8 qualification are eligible for transfer to a programme leading to a higher diploma or progression to programmes leading to master degree or postgraduate diploma or in some cases to programmes leading to a doctoral degree.

Level 9 - The learning outcomes at this level relate to the demonstration of knowledge and understanding which is at the forefront of a field of learning. The outcomes relate to the application of knowledge, understanding and problem solving abilities in new or unfamiliar contexts related to a field of study. The outcomes are associated with an ability to integrate knowledge, handle complexity and formulate judgements. Outcomes associated with this level would link with employment as a senior professional or manager with responsibility for the work outputs of teams. Progression and transfer routes for those completing postgraduate diplomas would lead to a masters degree some of which they may be exempt from. Those with masters degrees would progress or transfer to a doctoral degree or to another masters degree or to a postgraduate diploma.

Level 10 - Learning outcomes at this level relate to the discovery and development of new knowledge and skills and delivering findings at the frontiers of knowledge and application. Further outcomes at this level relate to specialist skills and transferable skills required for managing such as the abilities to critique and develop organisational structures and initiate change.



Appendix C Education Field Occupations

Table C.1 Occupations Included in Education Fields

Education Fields	Occupations
Education	Careers advisors
	Driving instructors (excluding HGV)
	Educational assistants
	Higher and further education teachers
	Other managers n.e.c.
	Other teaching professionals nec.
	Primary and nursery education teachers
	Secondary and vocational education teachers
	Special education teachers
	University and RTC teachers
	Vocational, industrial trainers
Humanities and Arts	Actors, entertainers, stage producers and directors
	Artists, commercial/industrial and designers
	Bookbinders and print finishers
	Clergy
	Clothing designers
	Goldsmiths, silversmiths, precious stone workers
	Musical instrument makers
	Musicians
	Originators and composers
	Other printing trades
	Photographers, camera, sound and video operators
	Printers
	Printing machine minders and assistants
Screen printers	
Weavers	
Window dressers, floral arrangers	
Social sciences, Business and Law	Accounts and wages clerks, other financial clerks
	Actuaries, economists, statisticians
	Administrators of schools and colleges
	Advertising and PR managers



Education Fields	Occupations
	Archivists and curators
	Authors, writers, journalists
	Bank etc. managers
	Barristers and advocates
	Buyers (retail)
	Buyers and purchasing officers (not retail)
	Cashiers bank and counter clerks
	Chartered and certified accountants
	Civil Service administrative officers
	Civil Service EO
	Collector salespersons and credit agents
	Commodity and shipping brokers
	Company financial managers
	Company Secretaries
	Computer operators, other office machine operators
	Credit Controllers
	Debt, rent and other cash collectors
	Estimators and valuers
	Filing, computer and other records clerks
	General administrators; national government
	General Managers; large companies
	Importers and exporters
	Judges
	Legal secretaries
	Legal service and related occupations
	Librarians
	Library assistants/clerks
	Local government clerical officers and assistants
	Local government officers
	Management accountants
	Management consultants and business analysts
	Managers/proprietors of shops etc.
	Marketing etc. managers
	Medical secretaries



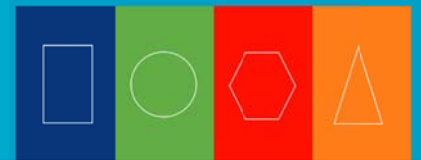
Education Fields	Occupations
	Merchandisers
	Officials of trade association etc.
	Other clerks (n.o.s.)
	Other financial managers n.e.c.
	Other sales representatives n.e.c
	Other secretaries
	Other social/behavioural scientists
	Personnel etc. managers
	Personnel, industrial relations officers
	Petrol pump attendants
	Property and estate managers and proprietors
	Psychologists
	Purchasing managers
	Receptionists
	Retail cash desk and check out operators
	Roundsmen/women and van salespersons
	Sales assistants
	Sen. Managers; national government
	Solicitors
	Stores managers
	Taxation experts
	Technical and wholesale sales representatives
	Telephone operators
	Telephone salespersons
	Typists, word processor operators
	Underwriters, claims assessors and analysts
	Warehousemen/women
	Warehousing managers
Work study officers	
Science, Mathematics and Computing	Biological scientists
	Chemists
	Computer analyst/programmers
	Computer systems managers
	Environmental health officers



Education Fields	Occupations
	Environmental health, Occupational hygienists
	Laboratory technicians
	Marine, insurance and other surveyors
	Other natural scientists n.e.c
	Other scientific technicians n.e.c.
	Physicists
	Software engineers
Engineering, Manufacturing and Construction	Aircraft officers
	Architects
	Architectural, town planning technicians
	Assemblers/lineworkers (electrical/electronic goods)
	Assemblers/lineworkers (metal goods and other goods)
	Bakers, flour confectioners
	Bakery and confectionery process operatives
	Barbenders, steel fixers
	Brewery and vinery process operatives
	Bricklayers, masons
	Builders, building contractors
	Building and civil engineering technicians
	Building inspectors
	Building managers
	Building, mining and other surveyors
	Butchers, meat cutters
	Cabinet makers
	Cable jointers, lines repairers
	Carpenters and joiners
	Chemical engineers
	Chemical, gas and petroleum process plant operatives
	Civil/mining engineers
	Clerk of works
	Clothing cutters, milliners and furriers
	Coach and other spray painters
	Coach and vehicle body builders
Coach trimmers, upholsterers and mattress makers	



Education Fields	Occupations
	Coal mine labourers
	Computer engineers, installation and maintenance
	Construction and related workers
	Cutting and slitting machine operatives
	Design and development engineers
	Draughtspersons
	Electrical engineers
	Electrical, energy, boiler and related plant attendants
	Electrical/electronic technicians
	Electricians, electrical maintenance fitters
	Electronic engineers
	Engineering technicians
	Face trained coal miners
	Floorers, floor coverers, carpet fitters, tilers
	Garage managers and proprietors
	Glass and ceramic furnice operatives
	Glass product and ceramics finishers
	Glass product and ceramics makers
	Glaziers
	Industrial designers
	Inspectors, viewers and testers (metal goods)
	Inspectors, viewers and testers (other goods)
	Knitters
	Labourers in engineering trades
	Labourers in foundries
	Labourers in other making/processing industries
	Machine tool operatives (inc. CNC operatives)
	Managers/proprietors of butchers
	Mates in Building Trade
	Mates in woodworking trades
	Mates to metal/electrical and related fitters
	Mechanical engineers
	Mechanical plant drivers/operatives
	Metal plate workers



Education Fields	Occupations
	Metal polishers
	Metal working production and maintenance fitters
	Mine (excluding coal) and quarry workers
	Mining and energy industry managers
	Motor mechanics
	Moulders and die casters
	Moulders and Furnace operatives (metal)
	Other Assemblers/lineworkers
	Other building and civil engineering labourers
	Other chemical, paper, plastics and related operatives
	Other construction trades n.e.c.
	Other craft and related occupations
	Other electrical/electronic trades n.e.c.
	Other engineers and technologists n.e.c.
	Other food, drink and tobacco process operatives
	Other machine tool setters and CNC setter-operators n.e.c.
	Other metal making process operatives n.e.c
	Other plant, machine and process operatives n.e.c.
	Other routine process operatives
	Other textiles processing operatives
	Other textiles, garments and related trades n.e.c.
	Other transport and machinery operatives n.e.c.
	Other woodworking trades n.e.c.
	Packers, bottlers, canners, fillers
	Painters and decorators
	Paper, wood and related process plant operatives
	Paviors and kerb layers
	Preparatory fibre processors
	Pipe layers/pipe jointers
	Planning and quality control engineers
	Plasterers
	Plastics process operatives
	Plumbers, heating and related trades
	Precision instrument makers



Education Fields	Occupations
	Press stamping and automatic machine workers
	Production and works managers
	Production engineers
	Quantity surveyors
	Radio and telegraph operators
	Radio, TV and video engineers
	Rail construction and maintenance workers
	Road construction and maintenance workers
	Roofers, slaters, tilers, sheeters, cladders
	Routine laboratory testers
	Rubber process operatives and tyre builders
	Scaffolders, riggers, steeplejacks
	Sewing machinists, menders, darners and embroiderers
	Sheet metal workers
	Ship and hovercraft officers
	Shoe repairers and other leather making and repairing
	Shot blasters
	Shunters and points operatives
	Slingers
	Smiths, forge/Metal plate workers
	Spinners, doublers, twisters
	Steel erectors
	Tailors, dressmakers
	Tannery production operatives
	Telephone fitters
	Tobacco process operatives
	Tool makers, tool fitters and markers out
	Town planners
	Tyre and exhaust fitters
	Vehicle body repairers, panel beaters and spray painters
	Warp preparers, bleachers, dyers and finishers
	Washers, screeners and crushers in mines and quarries
	Weighers, graders, sorters
	Welding trades



Education Fields	Occupations
	Woodworking machine operatives
Agriculture and Veterinary	Agricultural machinery drivers
	Farm owners and managers
	Farm workers
	Fishing and related workers
	Fishmongers, poultry dressers
	Forestry workers
	Gardeners, groundsmen/groundswomen
	Horticultural trades
	Other farming occupations
	Other managers in farming, horticulture etc
	Veterinarians
Health and Welfare	Ambulance staff
	Care assistants and attendants
	Chiropodists
	Dental nurses
	Dental practitioners
	Dental technicians
	Hospital porters
	Hospital ward assistants
	Information officers and guidance specialists
	Matrons, houseparents
	Medical practitioners
	Medical radiographers
	Medical technicians, dental auxiliaries
	Midwives
	Nursery nurses
	Nurses
	Nurses aids etc.
	Occupational and therapists n.e.c
	Ophthalmic and dispensing opticians
	Other childcare and related occupations
Other health associate professionals n.e.c.	
Pharmacists/pharmacologists etc	



Education Fields	Occupations
	Physiotherapists
	Playgroup leaders
	Social workers, probation officers
	Welfare, community and youth workers
Services	Air traffic planners and controllers
	Bar staff
	Beauticians
	Bookmakers
	Bus conductors
	Bus conductors and coach drivers
	Bus inspectors
	Car park attendants
	Caretakers
	Chefs, cooks
	Cleaners, domestics
	Counterhands, catering assistants
	Crane drivers
	Customs and excise officers, immigration officers
	Drivers mates
	Drivers of road goods vehicles
	Entertainment and sports managers
	Fire service officers (leading fire officer and below)
	Fork truck drivers
	Hairdressers and barbers managers
	Hairdressers, barbers
	Hotel and accommodation managers
	Hotel porters
	Housekeepers (domestic)
	Housekeepers (non-domestic)
	Inspectors of factories, trading standards
	Kitchen porters
	Launderers, dry cleaners, pressers
	Messengers, couriers
	NCOs and other ranks



Education Fields	Occupations
	Officers in armed forces
	Other occupations in sales and services n.e.c.
	Other personal service workers
	Other security and protective service occupations n.e.c.
	Other statutory inspectors
	Police officers (sergeant and below)
	Postal workers, mail sorters
	Prison service officers (below principal officer)
	Professional athletes, sports officials
	Publicans, innkeepers and club stewards
	Rail engine drivers
	Railway line operatives
	Railway station staff
	Railway station workers, supervisors and guards
	Refuse and salvage collectors
	Restaurant and catering managers
	Road sweepers
	Road transport depot inspectors
	Seafarers (merchant navy) barge and boat operatives
	Security guards and related occupations
	Sen. Fire service officers
	Sen. Police officers
	Senior Prison officers
	Shelf fillers
	Stevedores, dockers
	Taxi, cab drivers, chauffeurs and couriers
	Transport managers
	Travel agency managers
	Travel and flight attendants
	Undertakers
	Waiters, waitresses
	Water and sewerage plant attendants
	Window cleaners
Other	At work no other info



Education Fields	Occupations
	Factory machinists - no other info
	FAS workers - no other info
	Fulltime student
	Maintenance workers - no other info
	Other, no reason specified
	All other gainful occupation n.e.c
	All other labourers and related workers
	Goods porters
	Market/street traders
	Other associate professional and technical occupations n.e.c
	Scrap dealers
	Traffic wardens

Source: Analysis by SLMRU based on ISCED field of training data.



Appendix D Private Education Providers

1. HETAC data in Chapter 9 includes awards data for the following private higher education providers:

Fidelity Investments, Ireland
The American College, Dublin
Griffith College
Kimmage Development Studies Centre
Clanwillaim Institute
Irish Academy of Public Relations
Milltown Institute of Theology And Philosophy
Newpark Music Centre
National College of Ireland
St. Nicholas Montessori College Ireland
The Open Training College
Hibernia College
Carlow College
Institute of Business And Technology, Swords
ICD Business School/BPP Professional Education
Dublin Business School
Independent Colleges
Institute of Physical Therapy and Applied Science
Irish Institute of Purchasing and Materials Management

2. The data for professional institutes includes the following professional bodies:

Irish Auditing and Accounting Supervisory Authority Annual Report - data source for:

- ACCA (Association of Chartered Certified Accountants)
- ICAI (Institute of Chartered Accountants in Ireland)
- ICAI (Institute of Chartered Accountants in Ireland)
- ICPAI (Institute of Certified Public Accountants in Ireland)
- IIPA (Institute of Incorporated Public Accountants)
- CIMA (Chartered Institute of Management Accountants)

Irish Taxation Institute

Institute of Bankers

Kings Inns

The Law Society



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CAO Directors' Report (CAO: Various Years)

FETAC Annual Report 2009 (FETAC 2010)

Forecasts of Apprentice Intake into Construction-Related Trades: 2012 and 2013 (Shally, C. & McGrath, J. Unpublished document: 2009)

Projections of Full Time Enrolment at Primary, Second and Third Level, 2008-2030 (DES: 2010)

Retention Rates of Pupils in Second Level Schools 1991 to 2001 Entry Cohorts (DES: 2009)

School Leavers' Survey Report 2007 (ESRI 2009)

State Examinations Commission Annual Report (SEC: Various Years)

What Do Graduates Do? The Class of 2007 (HEA: 2009)



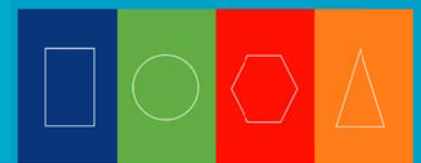
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Publications by the Expert Group on Future Skills Needs

Report	Date of Publication
Future Skills Needs of the Wholesale and Retail Sector	May 2010
The Expert Group on Future Skills Needs Statement of Activity 2009	April 2010
Future Skills Requirements of the Food and Beverage Sector	November 2009
Skills in Creativity, Design and Innovation	November 2009
Monitoring Ireland's Skills Supply: Trends in Education/Training Outputs 2009	November 2009
National Skills Bulletin 2009	July 2009
A Quantitative Tool for Workforce Planning in Healthcare: Example Simulations	June 2009
The Expert Group on Future Skills Needs Statement of Activity 2008	June 2009
A Review of the Employment and Skills Needs of the Construction Industry in Ireland	December 2008
Statement on Raising National Mathematical Achievement	December 2008
National Skills Bulletin 2008	November 2008
All-Island Skills Study	October 2008
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The Expert Group on Future Skills Needs Statement of Activity 2007	June 2008
Future Requirement for High-Level ICT Skills in the ICT Sector	June 2008
Future Skills Needs of the Irish Medical Devices Sector	February 2008
Survey of Selected Multi-National Employers' Perceptions of Certain Graduates from Irish Higher Education	December 2007
The Future Skills and Research Needs of the International Financial Services Industry	December 2007
National Skills Bulletin 2007	November 2007
Monitoring Ireland's Skills Supply: Trends in Educational/Training Outputs	June 2007
Tomorrow's Skills: Towards a National Skills Strategy	March 2007
National Skills Bulletin 2006	December 2006
Future Skills Requirements of the International Digital Media Industry: Implications for Ireland	July 2006
Careers and Labour Market Information in Ireland	July 2006
Skills at Regional Level in Ireland	May 2006
SME Management Development in Ireland	May 2006
Monitoring Ireland's Skills Supply: Trends in Educational/Training Outputs	January 2006



Data Analysis of In-Employment Education and Training in Ireland	December 2005
National Skills Bulletin 2005	October 2005
Skills Needs in the Irish Economy: The Role of Migration	October 2005
Languages and Enterprise	May 2005
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Innovate Market Sell	November 2004
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Literature Review on Aspects of Training of those at Work in Ireland	June 2004
Financial Skills Monitoring Report	November 2003
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The Demand and Supply of Skills in the Biotechnology Sector	September 2003
Skills Monitoring Report - Construction Industry 2003/10	July 2003
Benchmarking Education and Training for Economic Development in Ireland	July 2003
The Demand and Supply of Engineers and Engineering Technicians	June 2003
The Demand and Supply of Skills in the Food Processing Sector	April 2003
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The Third Report of the Expert Group on Future Skills Needs - Responding to Ireland's Growing Skills Needs	August 2001
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Report on E-Business Skills	August 2000
Report on In-Company Training	August 2000
The Second Report of the Expert Group on Future Skills Needs - Responding to Ireland's Growing Skills Needs	March 2000
Business Education and Training Partnership 2 nd Forum, Dublin	March 2000
Business Education and Training Partnership Report on the Inaugural Forum, Royal Hospital Kilmainham	March 1999
The First Report of the Expert Group on Future Skills Needs - Responding to Ireland's Growing Skills Needs	December 1998

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