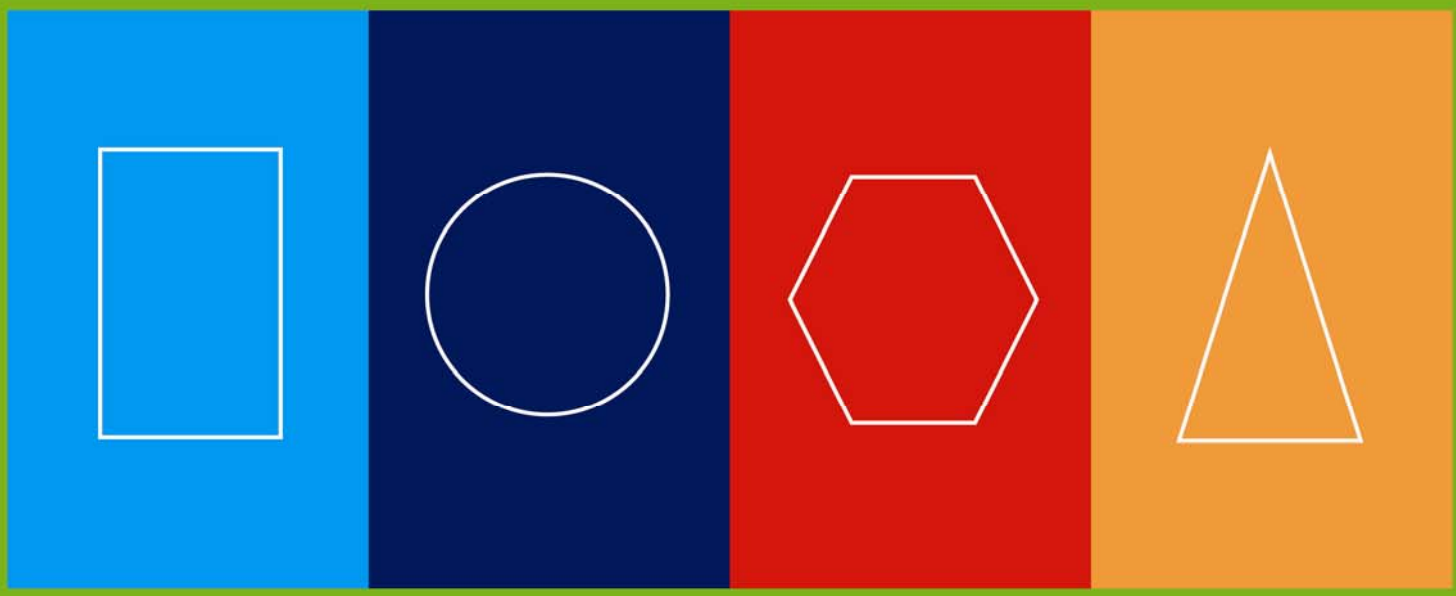

Monitoring Ireland's Skills Supply 2011

Trends in Education and Training Outputs

July 2011

Foras Áiseanna Saothair
Training & Employment Authority

Expert Group on
Future Skills Needs

Monitoring Ireland's Skills Supply

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Foreword

Education and training plays a fundamental role in achieving economic and social progress, most notably by equipping individuals with the skills and competences needed for employment, personal fulfilment and social cohesion. In today's knowledge-based society, the importance of education and training is recognised across a range of bodies, including the European Union and the Organisation for Economic Co-operation and Development as well as the Irish Government; this is reflected in policies and programmes such as the EU 2020 Targets for education and training and the Government's National Skills Strategy, which aim to set education and training objectives to develop a skilled workforce.

The supply of skills to the Irish labour market emerging from the formal education and training system is the focus of *'Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs'*. The report draws together all available information on the inflows and outflows of the Irish education system across the ten levels of the National Framework of Qualifications (NFQ) and provides a unique overview of the skills emerging from the education and training system in Ireland.

The report shows that an increasing number of learners are gaining education and training awards: there were just over 200,000 awards made in 2009/2010 across all levels on the National Framework of Qualifications - a 1.5% rise on the preceding year. With a rising number of enrolments across all sectors of the education and training system, combined with greater retention rates at second level, the number of awards made to learners is likely to increase further in the coming years.

This year's report includes an additional chapter which focuses on the lifelong learning participation of the adult population. The report found that adults (aged 25 and over) are increasingly participating in lifelong learning: there were approximately 111,000 adult lifelong learning participants in quarter 4 2010, a rise of 40% when compared to quarter 4 2005.

'Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs' is the sixth 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).

Una Halligan,
Chairperson, Expert Group on Future Skills Needs

Table of Contents

Executive Summary

'Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs' is the sixth 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).

Key Points

- There were over 200,000 awards in 2010
  - 56,000 Junior Certificates
  - 58,000 Leaving Certificates
  - 32,000 FETAC major Awards
  - 54,00 higher education awards (refers to 2009 data)
- Students are increasingly likely to complete **the Leaving Certificate**: the retention rate rose from 84.8% (2000 cohort) to 87.7% (2004 cohort – exiting in 2009 or 2010)
- The number of **FETAC award holders** (all award types) reached almost 177,000 in 2010, an increase from almost 175,000 in 2009
- There were almost 45,600 **CAO acceptances (NFQ 6-8)** in 2010; at level 6, an increase of 9% occurred while a 6% decline occurred at level 7; level 8 acceptances remained relatively unchanged year-on-year
- At **undergraduate level** (NFQ 6-8), there were almost 38,400 graduates in higher education in 2009, mostly at level 8; compared to 2008, graduate output declined at each undergraduate level (NFQ 6-8)
- Enrolments on **postgraduate higher education** programmes totalled almost 35,000 in 2009, including 8,419 for PhD programmes
- There were almost 16,000 graduates from postgraduate programmes in 2009, an increase of almost 24% since 2005
- In quarter 4 2010, 85% of all level 8-10 graduates aged 25-34 were at work, compared to a rate of 69% for the total in this age cohort at work; their unemployment rate was 7% compared to an overall rate of 15%
- Approximately 111,000 persons aged 25+ participated in lifelong learning (LLL) in quarter 4 2010, representing 4.5% of the adult population

Summary of Outputs from the Irish Education System

Table 1 Summary of Education and Training Awards by NFQ Level, 2010

	NFQ 1-2	NFQ 3	NFQ 4	NFQ 5	NFQ 6	NFQ 7	NFQ 8	NFQ 9/10	Total
Junior Certificate	-	56,000	-	-	-	-	-	-	56,000
Leaving Certificate	-	-	58,000		-	-	-	-	58,000
FETAC (Major awards*)	450	2,600	1,370	20,500	6,830	-	-	-	31,750
Institutes of Technology	-	-	-	-	2,760	6,860	8,650	2,010	20,280
Universities	-	-	-	-	1,170	1,870	17,090	13,960	34,090
Total	450	58,600	79,870		10,760	8,730	25,740	15,970	200,120

Source: State Examinations Commission (SEC); Further Education and Training Awards Council (FETAC); Higher Education Authority (HEA)

Table 2 Summary of Further and Higher Education and Training Awards by Field of Education, 2010

Field	NFQ 1-2	NFQ 3	NFQ 4	NFQ 5	NFQ 6	NFQ 7	NFQ 8	NFQ 9/10	Total
General	450	2,410	530	40	-	-	-	-	3,430
Education	-	-	-	20	70	50	1,720	3,080	4,940
Humanities & Arts	-	-	-	2,470	680	1,110	4,810	2,020	11,090
Social Science, Bus. & Law	-	200	210	5,080	1,960	2,580	7,920	5,240	23,190
Science	-	-	-	610	480	900	3,090	1,710	6,790
Engineering & Construction	-	-	20	540	4,060	2,030	2,730	850	10,230
Agriculture & Veterinary	-	-	70	1,110	980	210	270	70	2,710
Health & Welfare	-	-	20	8,670	1,420	960	4,620	2,630	18,320
Services	-	-	530	1,970	1,120	910	580	380	5,490
Total	450	2,610	1,380	20,510	10,770	8,750	25,740	15,980	86,190

Source: FETAC (Major Awards); HEA

Note: All data has been rounded; differences between the totals in Tables 1 and 2 are due to (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 2009.

*There are four award types on the National Framework of Qualifications (major, minor, special purpose and supplemental awards). Further education and training awards data refers to major awards only. Other award types in the further education and training sector are discussed in Chapter 5.

Levels 1 and 2: FETAC made the first awards at these levels in 2008; in 2010, there were 450 awards, an increase on the 270 awards made in 2009.

Level 3: There were 58,600 awards made at level 3, the vast majority of which were Junior Certificates (56,000 awards). The number of Junior Certificate sits increased by 1% when compared to 2009. The remaining level 3 awards were made by FETAC, mostly for general programmes.

Levels 4 and 5: Almost 80,000 awards were made in 2010. Of these, 58,000 awards were for the Leaving Certificate (spanning levels 4-5 on the NFQ) which is a 1% increase since 2009. 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. There was an 18% rise in level 5 FETAC major awards when compared to 2009 with increases in all disciplines except science.

Level 6: Awards at this level totalled 10,760 - a fall of 8% on the preceding year; almost two thirds of awards were made in the further education and training sector (FETAC major awards), 26% in IoTs and the remaining 11% in universities; approximately 38% of level 6 awards were in the field of engineering, manufacturing and construction (including craft awards).

Level 7: There were 8,730 level 7 awards which is a decline of 5% on the preceding year. More than three quarters of these awards were in the IoT sector with the remainder in universities; social science, business and law accounted for 29% of all level 7 awards made with a further 23% in the field of engineering, manufacturing and construction.

Level 8: At 25,740 awards at this level, there has been little change in the number of awards year-on-year, with social science, business and law accounting for the highest number of level 8 awards, followed by humanities and arts.

Levels 9 and 10: postgraduate awards totalled 15,970 representing a 5% rise since the previous year; one third of postgraduate awards were in education (mostly for postgraduate certs/diplomas). More than one half of all level 9/10 awards were for master degrees, 38% were for postgraduate certs/diplomas with the remaining 8% at doctoral level.

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. Junior infant enrolments peaked in 2008 at 64,000 but significant declines are unlikely in the medium term due to the sustained high number of births in recent years. At second level, first year enrolments have been increasing steadily since 2007, reaching 60,000 in 2010.

The Department of Education and Skills (DES) projects that, even if large-scale emigration and a fall in fertility rates were to occur,

- the number of primary school enrolments will grow from approximately 505,600 in 2009 to at least 536,500 by 2014
- the number of enrolments at second level is also expected to increase over the same period, reaching 331,900 by 2014.

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 apprenticeships. 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.

The inflows to PLC courses have been increasing since 2007 and the DES projects that total enrolments are expected to be approximately 40,000 per annum from 2011 onwards. The number of new registrations for FÁS apprenticeships (for selected trades) is expected to recover from the low of 1,000 in 2009 to approximately 3,600 by 2016 at the earliest.

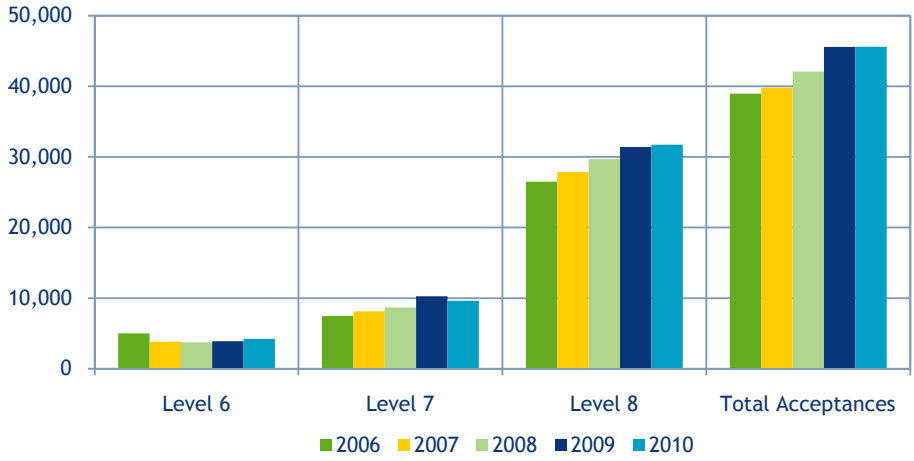
Higher Education and Training

Between 2011 and 2014, the total number of full-time students enrolled in higher education (at undergraduate or postgraduate level) is expected to increase, going from 161,000 in 2010 to in excess of 190,000 by 2014, regardless of the impact of migration and fertility patterns (DES: 2011). By the year 2031, enrolment is expected to further increase and reach just over 275,000 (assuming high outward migration and a fast decline in birth rates to EU norms)[1].

Figure 1 shows the number of CAO acceptances by NFQ level for the period 2006-2010. Almost 45,600 students accepted a place in higher education in 2010 – with no change in overall numbers since 2009. Rising participation rates in higher education combined with an increased number of Leaving Certificate sits should ensure sustained high levels of CAO acceptance numbers (and subsequently graduate output) in the coming years.

[1] These projections are based on the assumption that there will be sufficient capacity within the higher education and training system to accommodate this level of increased demand for places.

Figure 1 CAO Acceptances 2006-2010



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 3 shows that of the 52,300 mathematics candidates in the 2010 Leaving Certificate (all levels), 92% achieved at least a D grade, up one percentage point on the previous year. Higher level candidates accounted for 16% of all mathematics sits in 2010.

Table 3 Number and Share of Students with ≥D grades in Leaving Certificate Mathematics by Level, 2010

Mathematics Level	% of Total Sits	Number of Students with ≥ D	% of Students with ≥ D
Higher	16%	8,100	96%
Ordinary	73%	34,200	90%
Foundation	11%	5,700	95%
Total	100%	48,000	92%

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 at undergraduate level.

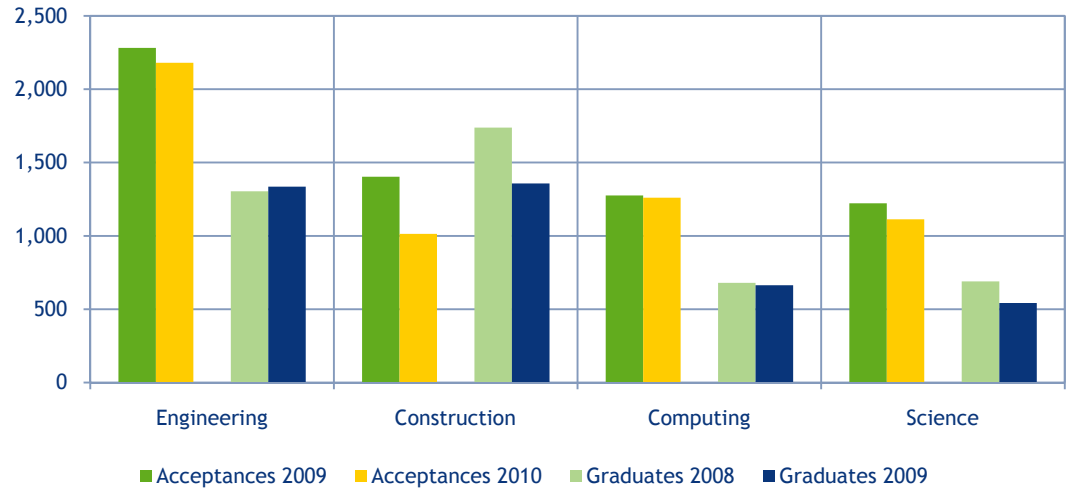
- **Engineering**: At levels 7/6, CAO acceptances decreased between 2009 and 2010 while output increased; the reverse occurred at level 8. Recent increases in CAO acceptances at level 8 should see a reversal in the short-term of the downward trend observed in the graduate output at this level.

- **Construction:** 2009 was the first year that a decline was observed in output from construction courses at all levels but particularly pronounced at levels 7/6; the significant drop in CAO acceptances suggests that this downward trend is set to continue, and indeed intensify, in the medium term.

- **Computing:** The recent increases in level 8 CAO acceptances, particularly between 2008 and 2009, have yet to be reflected in graduate output although this is expected in the short-medium term. No significant changes were observed at levels 7/6.

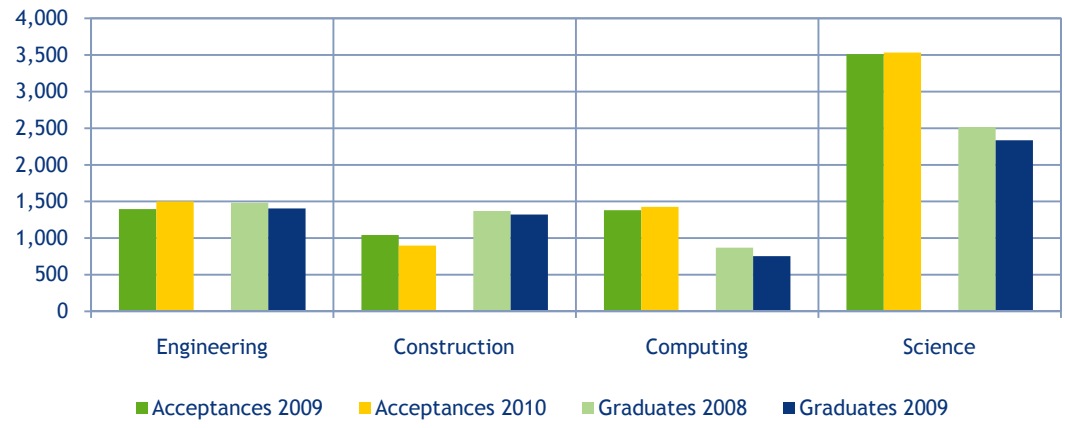
- **Science**: While CAO acceptances at level 8 remained steady between 2009 and 2010, a decline of 9% occurred at levels 7/6. The increases experienced in graduate output at all levels in the period 2007-2008 were reversed between 2008 and 2009.

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



Source: CAO; HEA

Figure 3 Level 8 Science & Technology CAO Acceptances and Graduate Output

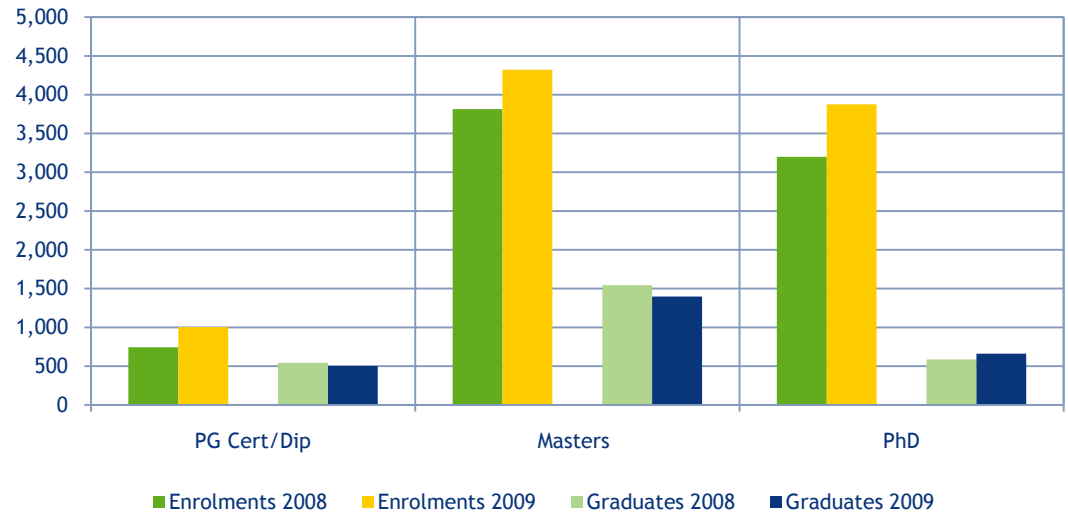


Source: CAO; HEA

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 Graduate Output



Source: HEA

- **Postgraduate Certs/Diplomas:** Between 2008 and 2009, science and technology enrolments increased by 35%, reversing recent declines. While enrolments declined for construction courses, all other subjects experienced an increase, particularly in the case of computing which increased by 77%. At the same time, graduate output declined by 8%, primarily due to declines in science output.

- **Masters:** Science and technology enrolments increased by 13% while output declined by 9%. The increase in enrolments, across all subjects, suggests that a reversal of the recent decline in output levels will occur in the short-term.

- **PhD:** This was the only postgraduate programme type to experience an increase in graduate output in the period 2008 to 2009. A further increase in enrolments of 21% indicates that this pattern is set to continue. Science accounted for over half of all PhD technology enrolments, with a 26% increase year-on-year.

Chapter 1 Introduction

1.1 Description

This chapter outlines the Irish education system. While the focus is on the formal education system, lifelong learning and mature-entry 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.

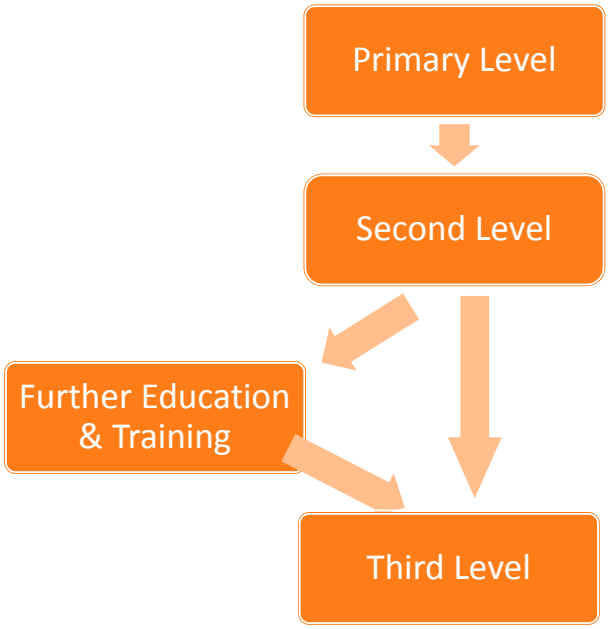
Second level education usually lasts five to six years and is divided into the junior cycle (three years duration) and the senior cycle (two years). Some pupils also undertake the Transition Year Programme – a one year programme which aims to act as a bridge between the junior and senior cycles. Secondary 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 level[2].

On completing second level education, school leavers who wish to continue studying have a number of options, one of which is the further education and training system where learners 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.

Another option for school leavers and holders of further education and training awards (e.g. a FETAC award) is higher education where learners may 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 ordinary degree/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.

[2] 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



1.2 National Framework of Qualifications

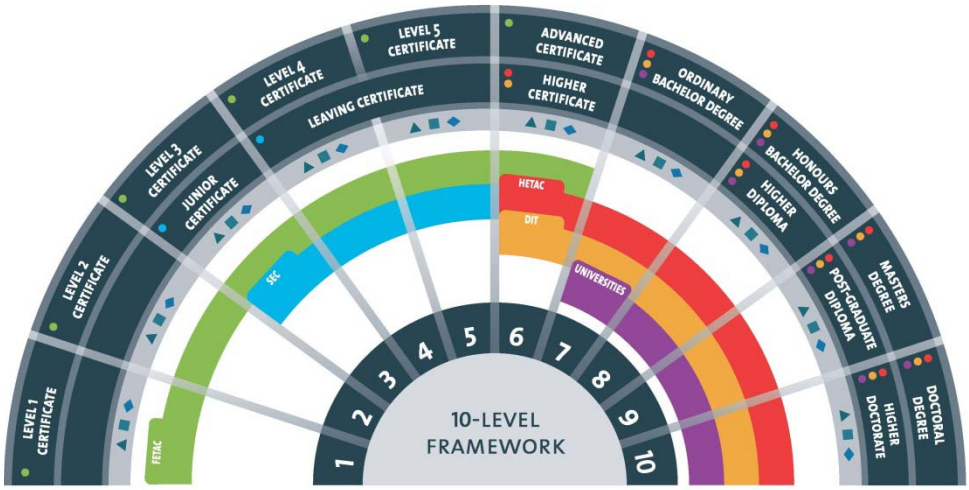
The National Framework of Qualifications (NFQ) was introduced in 2003 and implemented thereafter following an extensive consultation process with all of the national key stakeholders. Based on learners' standards of knowledge, skill and competence, the Framework facilitates the development, recognition and awarding of qualifications. Awards gained in schools, the workplace, the community, training centres, colleges and universities can all be placed on the Framework.

The structure of the Framework is based on award levels and types, which are outlined in Figure 1.2. There are ten award levels, which indicate the standard of learning (ranging from the most basic to doctoral awards). There are also four award-type categories, which serve as an indicator of the purpose, volume and progression opportunities associated with a particular award[3].

- **A major award** is the main class of award made at a level; examples of major awards include the Leaving Certificate, a FETAC major certificate or an honours bachelor degree.
- **A minor award** provides recognition for learners who achieve a range of learning outcomes but not the specific combination of learning outcomes required for a major award. A minor award is linked to a major award.
- **A special purpose award** is made for very specific purposes, e.g. heavy goods driving.
- **A supplemental award** is for learning which is additional to a previous award; it could, for example, relate to updating and refreshing knowledge or skills, or to continuing professional development e.g. safety and gas installation award.

[3] Source: National Qualifications Authority of Ireland (NQAI).

Figure 1.2 National Framework of Qualifications



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 Skills (DES). 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 Skills.

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. private 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.

In addition to the aforementioned national awarding bodies (e.g. FETAC, HETAC and the universities), the awards made to learners by some professional bodies (e.g. ACCA) and by some international awarding

bodies operating in Ireland (e.g. the Open University) are aligned with the National Framework of Qualifications at award level.

1.4 Education Data Collection

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

- The Central Statistics Office (CSO) provided demographic data, data relating to the education attainment of those in the workforce, and data on the lifelong participation of the adult population
- The State Examinations Commission (SEC) provided data on Junior Certificate and Leaving Certificate examination candidates and results
- The Department of Education and Skills (DES) provided school and PLC course enrolment data as well as 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 universities for 2005-2009 and institutes of technology (IoTs) for 2007-2009
- 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
- Eurostat provided the data on outgoing Erasmus students from Irish universities
- The OECD education online database was the source of international higher level graduation data.

This report focuses on the most recent education data available; 2010 data was available for Junior and Leaving Certificate numbers, CAO acceptance data, and FETAC awards data; the latest available year for higher education data was 2009 (2008 for OECD data). Data from private/independent providers of professional and higher education was available for 2009 or 2010, depending on the provider.

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: Chapters 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. The number of Irish-resident students pursuing education in other countries is presented in Chapter 10. Finally, Chapter 11 examines the extent to which the adult population in Ireland engages in lifelong learning.

Chapter 2 Demographic Profile

Key Points

- In 2009, the number of births in Ireland reached approximately 74,700 - a slight decline on the record high of 75,100 observed in 2008
- Inflows to the education and training system continued to grow across almost all sectors of the education and training system (except junior infants)
- Junior infant enrolments declined by 1% between 2008 and 2009; however, at 63,700 they remain the second highest number recorded in over ten years
- In 2010 at almost 60,500 enrolments, the number of Junior Cycle entrants reached its highest point since 2000
- While PLC course enrolments (1st year) increases were modest year-on-year (1% between 2009 and 2010), between 2006-2010 it grew by almost a third reaching almost 32,900 in 2010
- New entrants to higher education rose by 5% between 2008 and 2009, amounting to almost 41,000 in 2009
- The vast majority (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 may have implications for enrolments at all levels of the education system in the medium term. Net outward migration increased from 7,800 in April 2009 to 34,500 in April 2010 – the highest since 1989 (CSO *Population and Migration Estimates* 2010). The effects of migration on school enrolments, however, are expected to be mitigated by the natural increase in the population: between quarter 1 2008 and quarter 4 2010, the overall number of children aged 0-4 years in the population increased by 13% (an additional 40,000 children), despite a 2% decline (7,000 fewer children) in the number of non-Irish 0-4 year-olds (CSO QNHS data).

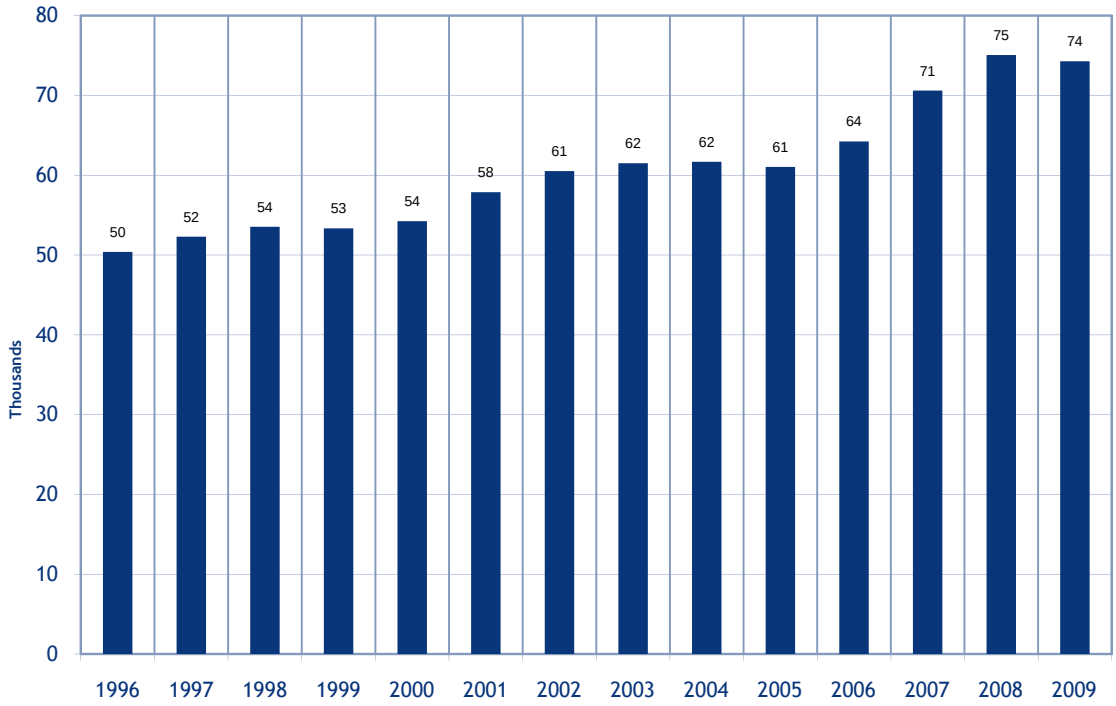
The first section examines the number of births in Ireland in the 14 year period 1996-2010; this is followed by an analysis of trends in the inflows at primary, post-primary, selected further education and training, and higher education level.

2.2 Births

The total number of births in Ireland for the period 1996-2009 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, for the most part, increased steadily between 1995 and 2009. At approximately 75,000, the number in births in 2008 was the highest on record since 1896. Despite slight declines in 2009, the number of births was nonetheless greater than in 1996. Given that on average children enter the primary school education system at the age of 4 or 5 years, the particularly sharp increase in 2007, and the sustained higher number of births since then, will have implications for junior infant enrolments from September 2011 onwards, unless negative migratory patterns intervene.

Figure 2.1 Number of Births in Ireland 1996-2009



Source: CSO

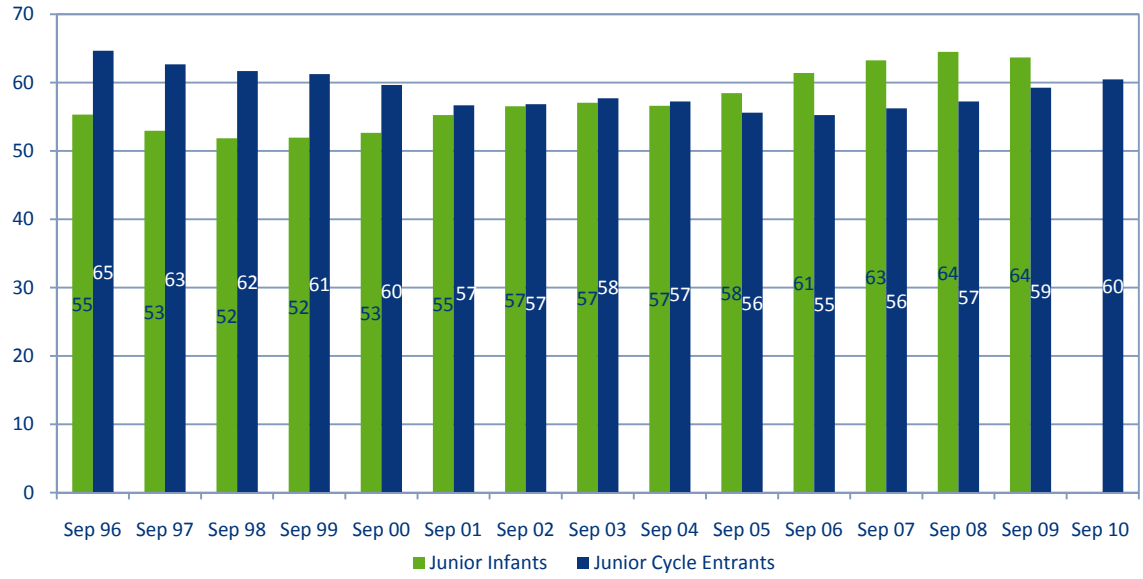
2.3 Primary and Post-Primary

2.3.1 Inflows

The number of enrolments in junior infants at primary level increased annually between September 2005 and 2008 (Figure 2.2); the 3% decline observed in 2009 is possibly a reflection of the 1% decline in the number of births five years previously as well as possible emigration from Ireland by parents of children from this age cohort. Nonetheless, due to the sharp increase in the number of births that occurred between 2006 and 2008 (Figure 2.1), it is likely that this decline will be reversed in the short-medium term.

Figure 2.2 also shows the number of pupils entering the first year of the Junior Cycle over the period 1996-2010. The number of Junior Cycle entrants was largely in decline until 2006, apart from a small increase in 2003. Thereafter, numbers began to increase 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 2010, at almost 60,500 enrolments, the number of Junior Cycle entrants reached its highest point since 2000.

Figure 2.2 New Entrant Enrolments in Primary and Post-Primary Schools (000s), 1996-2010



Source: DES

2.3.2 Potential Future Intake

According to DES estimates[4] (2011), the number of pupils enrolled at primary level is not expected to decline before the year 2015, even if large-scale emigration and a fall in fertility rates were to occur. Depending on migration and fertility patterns, enrolments at primary level are projected to reach between 536,500 and 542,600 by 2014– an increase of 26,000-33,000 on the 510,000 enrolments in 2010. By 2020 at the latest enrolment numbers are projected to decline for the remainder of the period to 2031.

At second level, even allowing for a high level of outward migration and a decline in fertility rates, the number of enrolments (excluding students enrolled on Core VTOS programmes) is not expected to decline before the year 2015. Depending on migration patterns and fertility rates, enrolments at second level are expected to reach between 331,900 and 337,000 – a rise of 15,000-20,000 compared to the 317,000 enrolments in 2010.

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 further education and training (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 further education and training. 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 also other FET routes, including Fáilte Ireland, Teagasc, or Bord Iscaigh Mhara training, among others)

Table 2.1 shows the number of new entrants to higher education by age for 2008/09 and 2009/10. In 2009/10, the number of new entrants to full-time, undergraduate higher education in Ireland totalled 40,815, 5% more than in the preceding year. While the vast majority (73%) were aged 19 or less, the numbers of students aged 23 or more grew by 26% over the two-year period, albeit from a relatively low base. Mature students (i.e. those aged 23 or more) accounted for 14% of all new entrants in 2009/10, up from a 12% share in 2008/09.

[4] DES (2011). *Projections of Full Time Enrolment: Primary, Second and Higher Level, 2011-2031.*

Table 2.1 New Entrants to Full-time Undergraduate Higher Education by Age, 2008/2009 and 2009/10

Age	2008/09	2009/10	% Difference 08/09 - 09/10
19 and under	28,700	29,756	4%
20-22	5,346	5,032	-6%
23+	4,782	6,027	+26%
Total	38,828	40,815	+5%

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

Table 2.2 shows the numbers entering selected further education and training pathways over the period 2006 to 2010 (FÁS (selected courses), Youthreach programmes and Post Leaving Certificate (PLC) courses)[5]. It is important to note that while these are among some of the popular routes chosen by school leavers, many students do not necessarily enter FET directly on leaving school. For example, in 2010, 86% of new starts on FÁS community training courses were aged under 20; 23% of total PLC (including 2nd year) enrolments were aged under 20.

Between 2006 and 2010 (2009 for Youthreach programmes), there were increases in the number of starters on PLC, Youthreach and FÁS community training courses (excluding apprenticeship training). The number of first year PLC course enrolments grew by almost a third (approximately an additional 8,000 learners) to reach almost 33,000 in 2010. The number of starters on FÁS training programmes also increased, by 6%. The number of learners at foundation level in Youthreach courses rose by almost a fifth (19%, or 250 additional learners) between 2006 and 2009.

In contrast, the number of new registrations for FÁS apprenticeships declined over the period 2006-2010, going from 8,300 to 1,200, translating into a decline of more than 7,000). 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.)

[5] PLC data is per academic year; FÁS data is per calendar year.

Table 2.2 PLC Course Enrolments (1st year), Youthreach Enrolments (Foundation Level), FÁS Community Training (New Starts) and FÁS Apprenticeship New Registrations 2006-2010

Year	PLC (1st Year Enrolments)	Youthreach (Foundation Level Enrolments)	FÁS Community Training (New Starts)[6]	FÁS Apprenticeships (New Registrations)
2006	24,942	1,339	2,579	8,318
2007	24,572	1,525	2,606	6,767
2008	28,160	1,656	2,316	3,764
2009	32,401	1,589	2,233	1,532
2010	32,880	n/a	2,417	1,197

Source: DES (PLC & Youthreach), FÁS (Community Training & Apprenticeship)

2.4.2 Potential Future Intake

According to DES enrolment projections[7], between 2011 and 2014 the total number of full-time students enrolled in higher education (at undergraduate or post-graduate level) is expected to increase by 18% (or 30,000 additional students) to reach in excess of 190,000 enrolments. By the year 2031, enrolment is expected to further increase and reach just over 275,000 (assuming high outward migration and a fast decline in birth rates to EU norms)[8].

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. The DES estimates that total number of students enrolled on PLC courses will be 40,000 from 2011 onwards. Recent apprenticeship forecasts[9] for selected trades[10] provide estimates of FÁS apprenticeship recruitment. Under the benchmark scenario, the number of new apprenticeship registrations was expected to recover from the low in 2009 (of 1,010 for the selected trades) to reach approximately 3,560 by 2014, but remaining well below the peak of 7,467[11]. It should be noted, however, that economic conditions have further deteriorated since these projections were calculated in late 2010 and it is now considered that the rate of recovery in the number of new registrations will be slower than envisaged in these forecasts and the figure of 3,560 may not be reached before 2016 at the earliest. Alternative forecasts are being developed and will be available by autumn 2011.

[6] FÁS provides a wide range of courses; only community training is provided here as this course type is most relevant to school leavers (the vast majority (86%) of new starts were aged less than 20 years in 2010, compared to 11% for FÁS specific skills training).
[7] DES (2011). *Projections of Full Time Enrolment: Primary, Second and Higher Level, 2011-2031.*
[8] These projections are based on the assumption that there will be sufficient capacity within the higher education and training system to accommodate this level of increased demand for places.
[9] Forecasts of Apprentice Intake into Selected Construction and Non-Construction Trades to 2014 (McGrath & Shally (FÁS) 2011).
[10] The trades included were construction related trades (electrician, carpenter and joiner, cabinet maker, brick and stone-layer, plumber, plasterer, painter and decorator, construction plant fitter) and four non-construction trades (motor mechanic, vehicle body repairer, fitter and toolmaker).
[11] This figure does not pertain to a particular year; it is the sum of the peak intake for the individual trades in question.

Chapter 3 Junior Certificate

Key Points

- At over 56,088 in 2010, the number of Junior Certificate sits increased slightly (by 1%) compared to 2009
- The retention rate to completion of the Junior Certificate was estimated at 94.5% for the 2004 cohort; females were slightly more likely than males to sit the Junior Certificate: females had a retention rate of 94.9%; males, 94.2%
- Junior Certificate students are increasingly opting to sit the higher level paper in most of the top ten Junior Certificate subjects (except history)
- **Mathematics**: although the higher level participation rate for mathematics increased from 42% to 45% between 2006 and 2010, this is one of only two Junior Certificate subjects where the majority of candidates sat the ordinary level paper
- **Science**: the take-up rate for science increased slightly, going from 86% to 88% between 2006 and 2010; science candidates were also more likely to obtain a pass grade at both higher and ordinary level in 2010 than in 2006 (the higher level pass rate rose from 95% to 96%; ordinary level from 97% to 99%)
- In terms of results, females outperformed males in all selected subjects at both higher and ordinary level
- **International Comparison**: data from PISA 2009 shows that Ireland's performance in
  - reading literacy was **slightly below** the OECD average, ranking 17 out of 34 OECD countries
  - mathematics was **significantly below** the OECD average (26th place)
  - scientific literacy was **significantly above** the OECD average (14th place).

3.1 Introduction

This chapter provides an overview of the Junior Certificate, which has been placed at level 3 on the National Framework of Qualifications (NFQ). Following a description of the Junior Certificate programme in terms of candidate numbers, the subject choices and achievements of Junior Certificate students is outlined. The chapter concludes with a summary of the 2009 PISA cycle which provides an indication of how Ireland's 15-year-olds perform internationally at this level.

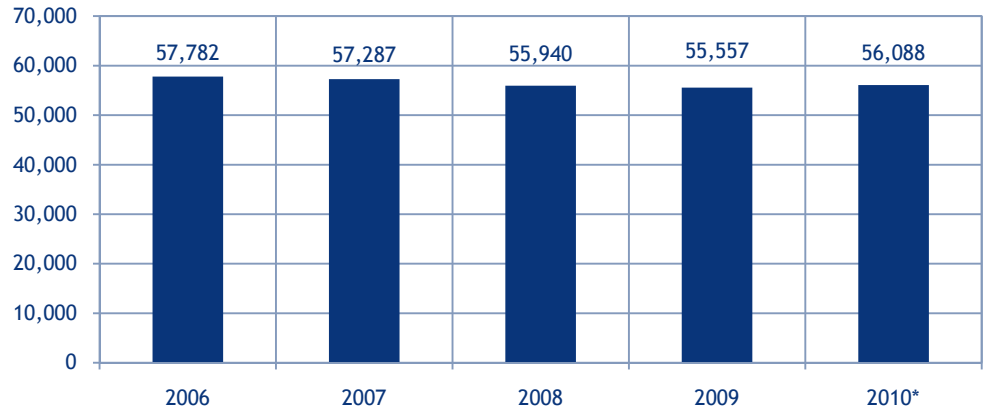
3.2 Junior Certificate: Candidates and Examination

Students normally sit the Junior Certificate examination on completion of the Junior Cycle which forms the first three years of second level education, by which time candidates are typically aged 15 years. In 2011, the Department of Education and Skills (*Retention Rates of Pupils in Second Level Schools 1991 to 2004 Entry Cohorts*) estimated that of the students who entered the Junior Cycle in 2004, 94.5% sat the Junior Certificate examination[12]. However, females were slightly more likely than males to sit the examination: females had a retention rate of 94.9%; males, 94.2%. These rates were lower than those observed in preceding years but may be due to methodological issues rather than an actual decline in the Junior Certificate retention rate[13].

In addition to second level pupils enrolled on the Junior Cycle programme, candidates following an approved course of study outside the State or attending an approved course of study organised under the Vocational Training Opportunities Scheme (VTOS), Adult Literacy and Community Education Schemes or the Back to Education Initiative (BTEI) may also sit the Junior Certificate examination. In 2010, 1,135 Junior Certificate candidates were re-entrants to education, sitting the examination through education schemes such as VTOS and BTEI. This is a decline on the figure of 1,267 for 2009, although the share of re-entrants among Junior Certificate candidates has remained at approximately 2% of the total.

Figure 3.1 shows the number of Junior Certificate sits each year over the period 2006-2010. Following steady declines between 2006 and 2009, 2010 saw a 1% rise in the number of Junior Certificate sits which went from 55,557 in 2009 to 56,088 in 2010. Slightly more males than females sat the examination in 2010: there were 28,523 male candidates and 27,565 female candidates, making up 51% and 49% of the total respectively.

Figure 3.1 Junior Certificate Sits 2006-2010



Source: SEC

*Data for 2010 is provisional only

[12] The data on Junior Certificate retention rates is unadjusted for those transferring to non-aided second level schools and other destinations.

[13] The DES found that of all those who entered the Junior Cycle in 2004, over 1,000 students who were present in the Senior Cycle had not sat the Junior Certificate. The presence of these students in the Senior Cycle indicates that they may have sat the examination, but were not captured in the data for methodological reasons.

3.3 Junior Certificate Subject Choice and Levels

The Junior Certificate examination is offered in more than 25 subjects. With the exception of civic, social and political education (CSPE), which is available at common level only, all subjects can be taken at either higher or ordinary level; in addition, English, mathematics and Irish are also available at foundation level. Candidates normally take between eight and ten subjects.

3.3.1 Top-Ten Subject Choice – Total Sits

The top ten subjects in the 2006 and 2010 Junior Certificate examinations are presented in Table 3.1; an indication of the take-up rate is also provided. Each year, 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 second level students. In addition, at least 90% of candidates each year took geography and history.

The most notable differences observed over the five-year period include:

- **A decline in absolute numbers for all subjects** except religious education; these declines are mostly associated with the 3% fall in the number of Junior Certificate candidates that occurred between 2006 and 2010
- A slight rise in the take-up rate for science; from 86% to 88% which, combined with a fall in the take-up rate for Irish, resulted in **science replacing Irish as the sixth most popular Junior Certificate subject**
- Declines in the take-up rates for Irish and French, which each fell by three percentage points.
- While there were declines of between 1% and 3% in the numbers sitting most subjects, the numbers sitting Irish and French fell even more sharply, with a 7% fall off in the absolute numbers sitting each of these two languages.
- A rise in the take-up rate for religious education (from 41% to 46%); this continues the gains in the take-up rate for this subject which have been observed since the year it was first examined in 2003.

Table 3.1 Junior Certificate Sits and Take-up Rates by Subject, 2006 & 2010*

Subject	2006 Sits	2006 Take-up	2010 Sits	2010 Take-up
English	57,125	99%	55,446	99%
Mathematics	56,965	98%	55,290	99%
C.S.P.E	56,148	97%	54,753	98%
Geography	52,255	90%	51,214	91%
History	51,310	89%	50,356	90%
Science**	49,909	86%	49,446	88%
Irish	50,871	88%	47,547	85%
French	35,701	62%	33,247	59%
Business studies	33,821	58%	32,456	58%
Religious education	23,997	41%	25,930	46%

Source: SEC

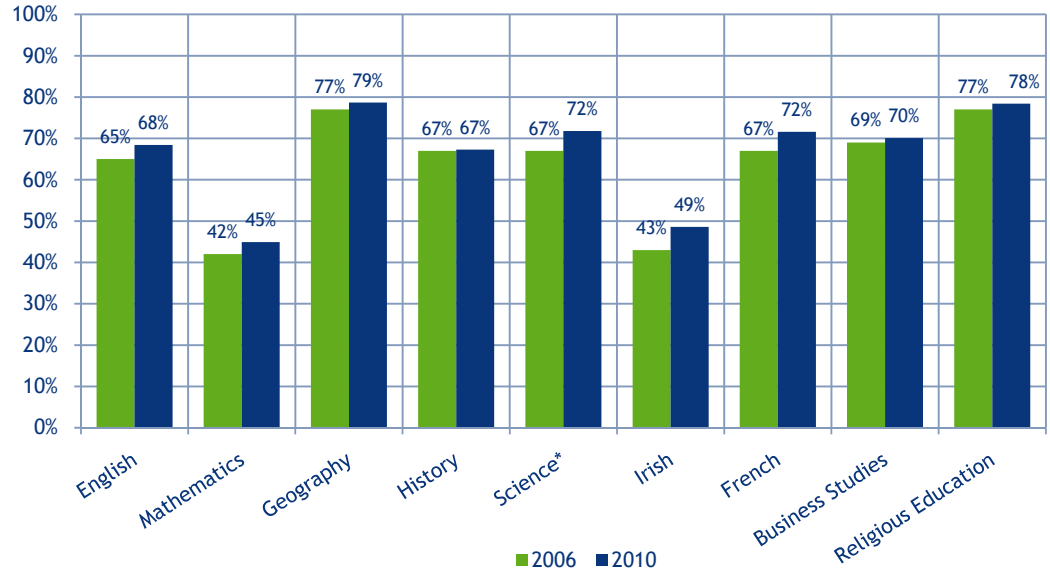
*Data for 2010 is provisional
** The numbers for science in 2006 include the Revised Science syllabus, introduced for the first time in the 2006 Junior Certificate examination, and the older 1989 science syllabus

3.3.2 Top-Ten Subject Choice - higher level sits

Figure 3.2 compares the higher level participation rates for the most popular Junior Certificate subjects in 2006 and 2010. Junior Certificate students are increasingly opting to sit the higher level paper in the majority of these subjects: with the exception of history which remained unchanged at 67%, the share of those sitting higher level papers rose since 2006. (C.S.P.E is not included in the graph as it is offered at common level only.)

In any given year, at least two thirds of Junior Certificate students sat the higher level paper in all but two subjects (mathematics (45%) and Irish (49%)). Despite these comparatively low shares, however, the higher level participation rate increased by three percentage points for mathematics and by six percentage points for Irish over the five year period 2006-2010.

Figure 3.2 Junior Certificate Higher Level Participation Rates 2006 & 2010



Source: SEC

*The numbers for science in 2006 include the Revised Science syllabus and the older 1989 science syllabus

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. in the PISA survey carried out every three years by the OECD which is summarised at the end of this chapter).

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 2006 and 2010. The data shows that:

- at least 98% of candidates in the English examination (at both higher and ordinary levels) gained at least a D grade every year, although there was a slight increase in 2010 (to 99%) for higher level English
- in mathematics, higher level students were more likely than ordinary level students to achieve a grade D or more (96% compared to 93% in most years); over the five year period, the share of candidates achieving a pass grade fell slightly at ordinary level (going from 94% in 2006 to 93% in 2008 and beyond) and remained mostly the same at higher level (96%); foundation level candidates (not included in the table) had a pass rate or 97%, up slightly from 96% in 2009.
- science candidates were increasingly likely to take the higher level paper (see Figure 3.2) 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 95% to 96% at ordinary level and from 97% to 99% at higher level over the five year period.

Table 3.2 Junior Cert Student Achievement in English, Maths and Science, 2006-2010

Subject	2006≥ D %	2008 ≥ D %	2009 ≥ D %	2010 ≥ D
Higher Level				
English	98%	99%	98%	99%
Mathematics	96%	97%	96%	96%
Science*	97%	99%	98%	99%
Ordinary Level				
English	98%	98%	98%	98%
Mathematics	94%	93%	93%	93%
Science*	95%	96%	96%	96%

Source: SEC

* Data for 2006 includes both the 1989 science syllabus and the Revised Syllabus

3.3.4 Gender Distribution by Subject Choice 2010

The gender distribution of sits in the top ten Junior Certificate subjects (higher and ordinary level) is provided 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 art, craft and design, languages (Irish, French and to a lesser extent English) and religious education.

With the exception of business studies, where 51% of candidates were female, ordinary level subjects were taken mostly by males. The gender distribution was almost balanced for history and mathematics where males made up 51% of sits; subjects where males considerably outnumbered females included science and languages.

Table 3.3 Gender Breakdown of Higher and Ordinary Level Subjects 2010

	Higher Level				Ordinary level			
	Total Male	% Male	Total Female	% Female	Total Male	% Male	Total Female	% Female
English	17,722	47%	20,218	53%	9,179	59%	6,370	41%
Maths	12,163	49%	12,677	51%	13,307	51%	12,546	49%
Geography	20,027	50%	20,262	50%	5,717	52%	5,208	48%
History	16,867	50%	17,018	50%	8,323	51%	8,148	49%
Science	17,658	50%	17,830	50%	8,128	58%	5,830	42%
Irish	9,720	42%	13,391	58%	12,427	56%	9,961	44%
French	10,544	44%	13,260	56%	5,296	56%	4,147	44%
Business Studies	11,211	49%	11,532	51%	4,799	49%	4,914	51%
Religious Education	9,250	45%	11,086	55%	3,024	54%	2,570	46%
Art, Craft, Design	4,715	32%	9,911	68%	3,494	52%	3,187	48%

Source: SEC

3.3.5 Gender Distribution of Junior Certificate Results

The gender differences in achievements for the most popular Junior Certificate subjects at higher level are provided in Table 3.4. Females outperformed males in each of the subjects presented in the Table. The largest gender gaps were observed for languages, religious education and art, craft and design, with gaps of between nine and 14 percentage points in the shares of males and females obtaining at least a C grade. The smallest gender gap was in geography and science, where the difference was one and two percentage points respectively.

Table 3.4 Gender Differences in Achievement at Higher Level, Junior Certificate 2010

	Males ≥ C	% Males*	Females ≥ C	% Females*	Difference (Percentage point)
English	12,544	71%	16,704	83%	12
Maths	9,249	76%	10,048	79%	3
Geography	15,095	75%	15,458	76%	1
History	11,656	69%	12,607	74%	5
Science	14,431	82%	15,060	84%	2
Irish	7,395	76%	11,446	85%	9
French	6,748	64%	9,636	73%	9
Business Studies	9,048	81%	9,870	86%	5
Religious Education	7,622	82%	10,191	92%	10
Art, Craft, Design	3,535	75%	8,792	89%	14

Source: SEC

* % of all males/females sitting the subject

At ordinary level, females again outperformed males in all selected subjects (Table 3.5). The gender gap was most pronounced for art, craft and design (10 point gap), English (12 point gap) and French (13 point gap). The smallest gaps were in geography and history where the gap was one percentage point and two percentage points respectively.

Table 3.5 Gender Differences in Achievement at Ordinary Level, Junior Certificate 2010

	Males ≥ C	% Males*	Females ≥ C	% Females*	Difference (percentage point)
English	6,857	75%	5,536	87%	12%
Maths	9,437	71%	9,711	77%	6%
Geography	4,366	76%	3,999	77%	1%
History	5,901	71%	5,984	73%	2%
Science	6,355	78%	4,806	82%	4%
Irish	9,132	73%	8,604	86%	13%
French	3,024	57%	2,722	66%	9%
Business Studies	3,634	76%	4,085	83%	7%
Religious Education	2,510	83%	2,320	90%	7%
Art, Craft, Design	2,380	68%	2,487	78%	10%

Source: SEC

* % of all males/females sitting the subject

3.4 International Comparison: PISA Results 2009

The Programme for International Assessment (PISA) is an international assessment of the knowledge and skills of 15-year olds in reading, mathematics and science, sponsored by the Organisation for Economic Co-operation and Development (OECD). PISA takes place in OECD and partner countries every three years. The first PISA cycle was in 2000; the most recent in 2009.

In this section we draw on a recent publication (Perkins et al 2010) to outline some of the key findings in relation to Ireland's performance in PISA 2009 and the trends in student achievements observed since PISA 2000. This analysis serves as an indicator of how Irish 15-year-olds compare with their peers in international reading, mathematical and scientific literacy tests.

The latest PISA results show Ireland's 15-year-olds scored below the OECD average in reading and mathematics, and above average in science. There were declines in their overall ranking in reading and mathematics; however, Ireland climbed two places in science.

3.4.1 Reading Literacy

In 2009, Ireland's performance in reading literacy was slightly below the OECD average, although in statistical terms, the difference between the two was not significant. Overall, Ireland ranked 21st out of 65 participating countries (17 out of 34 OECD countries). This is in marked contrast to Ireland's performance in 2000 where it ranked 5th out of all OECD countries and was significantly above the OECD average. In fact, Ireland's fall from 5th to 17th place was the largest decline across all 39 countries that participated in both PISA 2000 and PISA 2009.

3.4.2 Mathematical Literacy

Ireland's mean score in mathematics was significantly below the OECD average in 2009. Ireland ranked 32nd among 65 participating countries and 26th out of 34 OECD countries. Ireland's performance in mathematics declined: its rank dropped from 20th to 26th among participating countries and the overall drop in its average score was the second largest decline among countries participating.

3.4.3 Scientific Literacy

In science, Ireland's mean score was significantly above the OECD average for 2009. Overall, it ranked 20th out of 65 countries and 14th out of 34 OECD countries. Furthermore, between 2006 and 2009, Ireland's rank climbed two places from 20th to 18th among countries participating in both years.

Table 3.6 PISA 2009 Results for Selected OECD Countries

Reading		Mathematics		Science	
Korea	539	Korea	546	Finland	554
Finland	536	Finland	541	Japan	539
Canada	524	Switzerland	534	Korea	538
New Zealand	521	Japan	529	New Zealand	532
Japan	520	Canada	527	Canada	529
Australia	515	Netherlands	526	Estonia	528
Netherlands	508	New Zealand	519	Australia	527
Belgium	506	Belgium	515	Netherlands	522
Norway	503	Australia	514	Germany	520
Estonia	501	Germany	513	Switzerland	517
Switzerland	501	Estonia	512	United Kingdom	514
Poland	500	Iceland	507	Slovenia	512
Iceland	500	Denmark	503	Poland	508
United States	500	Slovenia	501	**Ireland**	**508**
Sweden	497	Norway	498	Belgium	507
Germany	497	France	497	Hungary	503
Ireland	**496**	Slovak Republic	497	United States	502
France	496	Austria	496	Czech Republic	500
Denmark	495	Poland	495	Norway	500
United Kingdom	494	Sweden	494	Denmark	499
Hungary	494	Czech Republic	493	France	498
Portugal	489	United Kingdom	492	Iceland	496
Italy	486	Hungary	490	Sweden	495
Slovenia	483	Luxembourg	489	Austria	494
Spain	481	United States	487	Portugal	493
Czech Republic	478	**Ireland**	**487**	Slovak Republic	490
Slovak Republic	477	Portugal	487	Italy	489
Luxembourg	472	Spain	483	Spain	488
Austria	470	Italy	483	Luxembourg	484

	Statistically significantly above the OECD average
	Not statistically significantly different from the OECD average
	Statistically significantly below the OECD average

Source: Adapted from PISA 2009: The Performance and Progress of 15-year-olds in Ireland[14]

[14] Summary Report 2010 (Perkins, Moran, Cosgrove & Shiel)

Chapter 4 Leaving Certificate (NFQ 4/5)

Key Points

- At 57,839 sits in 2010, the number of Leaving Certificate sits was 1% higher than in 2009 and was the greatest number recorded over the period 2006-2010
- Students are increasingly likely to complete the Leaving Certificate: the retention rate for the 2004 cohort (exiting in 2009/10) was 87.7% (adjusted rate[15]), compared to 84.8% (adjusted rate) for the 2000 cohort
- Girls were more likely than boys to sit the examination; 86.5% of females in the 2004 cohort sat the Leaving Certificate compared to 82.4% of males (unadjusted rates)
- Over the period 2006-2010, there was an increase in the higher level participation rate for all subjects, except mathematics
- **Mathematics** had the lowest rate of higher level participation (16%) in 2010, amounting to approximately 8,400 sits; this was the only subject which saw a decline in higher level participation between 2006 and 2010, going from 18% in 2006 (amounting to approximately 9,000 sits)
- There was an increase in the take-up rate for biology (up from 49% to 54% over the five-year period), resulting in approximately 4,400 additional sits in 2010 compared to 2006
- Biology was the only science subject in the top-ten in 2010; chemistry and physics were ranked 13th and 15th respectively

4.1 Introduction

The focus of this chapter is on the Leaving Certificate, which spans levels 4 and 5 on the National Framework of Qualifications. We begin with a brief description of the Leaving Certificate and the candidates that typically sit the examination. This is followed by an analysis of Leaving Certificate trends according to (a) science and related subjects, (b) business and related subjects, (c) languages and (d) gender distribution of subject choices. Grades achievements for key subjects are also provided. This chapter concludes with a short description of recent trends in the points achievements of Leaving Certificate candidates.

[15] This rate is adjusted for students who emigrated, died or who left State-aided schools to pursue their senior cycle education in private non-aided institutions.

4.2 The Leaving Certificate – Examination and Candidates

The Leaving Certificate examination is held at the end of the senior cycle, following five or six years of full-time education at second level. 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 2010, there were 2,823 repeat candidates, representing almost 5% of the total number that year; this is an increase on a 3.8% share in 2009, when there were 2,211 repeat candidates.

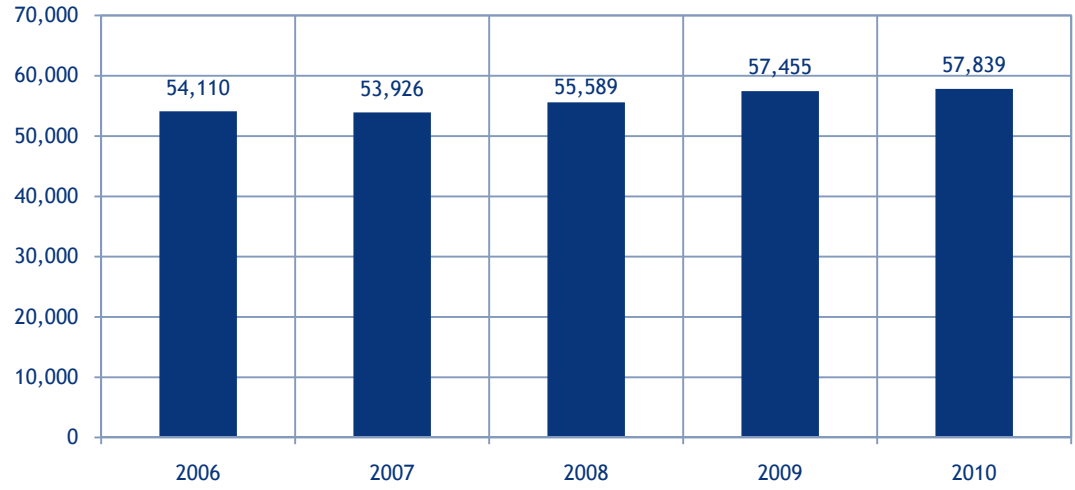
The Leaving Certificate examination may also be taken by candidates studying outside the formal school system. In 2010, 1,267 candidates were re-entrants to education, entered for the Leaving Certificate examination through programmes such as the Vocational Training Opportunities Scheme (VTOS) and the Back to Education Initiative (BTEI); this is a 26% rise on the number in 2009. All told re-entrants to education accounted for 1.8% of all sits in 2010, compared to 1.4% in 2009.

Not all students who enter second level education will complete the Leaving Certificate. The Department of Education and Skills (2011) estimated that of the total cohort of students who entered the Junior Cycle in 2001, 87.7% went on to sit the Leaving Certificate examination 5-6 years later in June 2007 or 2008 (this rate was adjusted to take account of students who emigrated, died or who left the State-aided schools to pursue their senior cycle education in private non-aided institutions)[16]. Overall, second level students were increasingly likely to sit the Leaving Certificate: the rate increased from 84.8% in the 2000 cohort to 87.7% by the 2004 cohort, the highest retention rate to date. The report also found that girls were more likely than boys to sit the examination; 86.5% of females in the 2004 cohort sat the Leaving Certificate compared to 82.4% of males (these rates are unadjusted). The gap between males and females has narrowed somewhat in recent years and while the retention rates for both sexes increased compared to the 2000 cohort, the rise in males was greater (going from 76.6% to 82.4%) than for females (which went from 85.9% to 86.5%) (unadjusted rates).

Figure 4.1 shows the number of Leaving Certificate candidates over the five-year period 2006-2010. At more than 57,800 sits in 2010, the number of candidates was the highest observed over the five year period - 7% more than in 2006 and 1% more than in 2009. This increase is, in part, related to a greater number (and share) of re-entrants to education and repeat students. Males and females took the examination in almost equal numbers making up a 50% share each.

[16] DES (2011) *Retention Rates of Pupils in Second Level Schools 1991 to 2004 Entry Cohorts*

Figure 4.1 Number of Leaving Certificate Candidates, 2006-2010



Source: State Examinations Commission

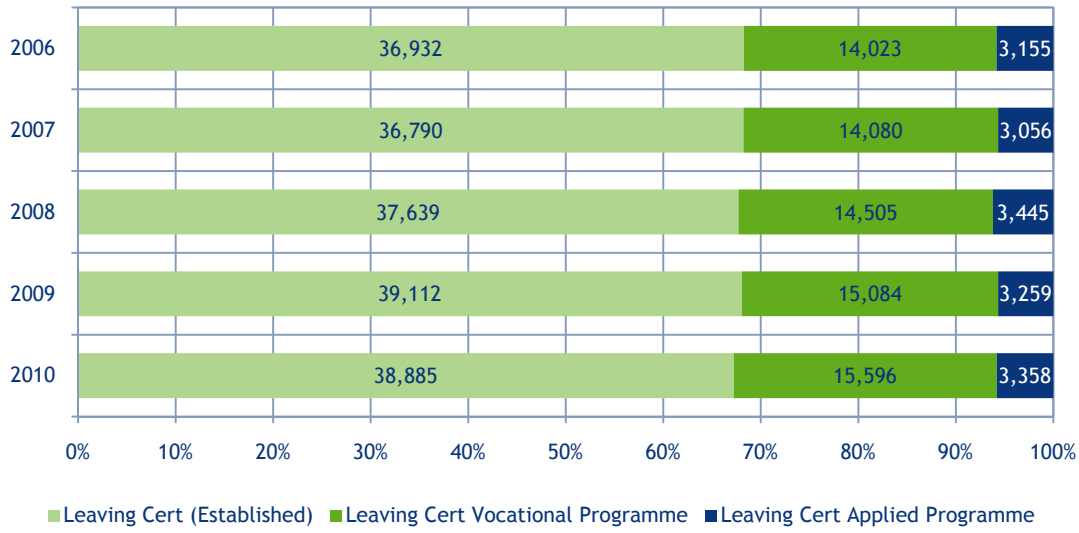
4.3 Leaving Certificate Programme Types

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 the purposes of progression 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.

Figure 4.2 shows the distribution of Leaving Certificate sits by programme type over the period 2006-2010. The Leaving Certificate Established is the most popular examination and is taken by just over two thirds of examination candidates each year; this is followed by the Leaving Certificate Vocational Programme, with over a quarter of candidates annually. The Leaving Cert Applied Programme accounts for the remaining 6% of candidates. The number of candidates taking the vocational programme have increased each year in the five year period examined.

Figure 4.2 Leaving Certificate Candidates by Programme Type, 2006-2010



Source: State Examinations Commission

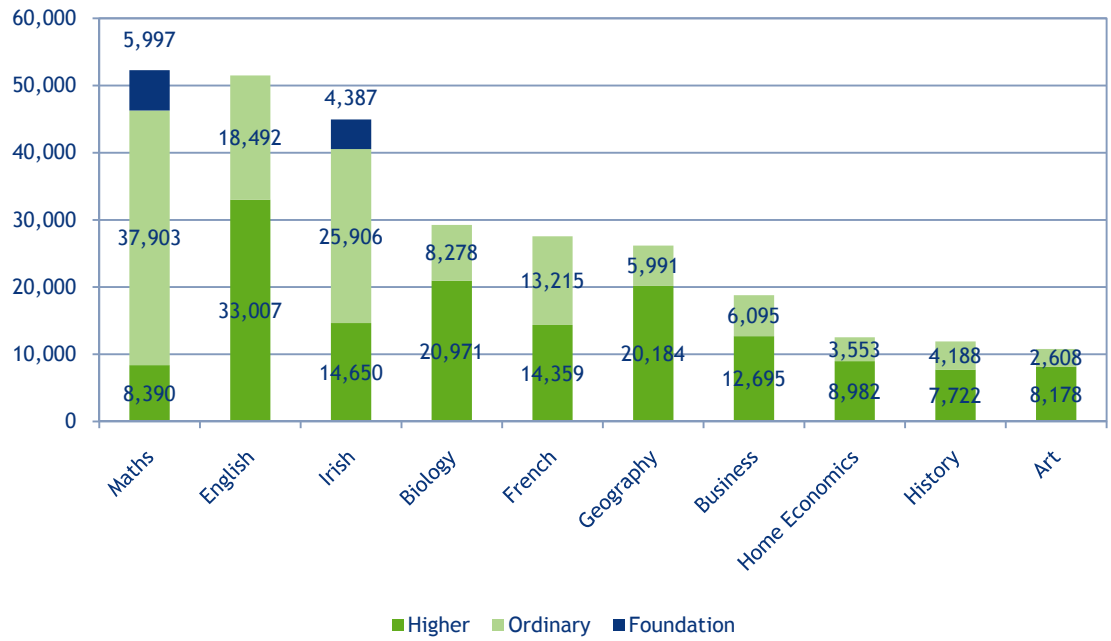
4.4 Leaving Certificate (LCE & LCVP): Subject Uptake & Higher Level Rates

4.4.1 Top ten subject choice

Leaving Certificate Established students and Leaving Certificate Vocational Programme students sit the same examination for each of their subject choices. The ten most popular subjects taken by Leaving Certificate students in 2010 are shown in Figure 4.3:

- In 2010, mathematics and English were the most popular subjects; at least 95% of candidates opted to sit the Leaving Certificate (LCE & LCVP) in these subjects; 82% of candidates sat Irish; the high take-up rates for these subjects is due in part to the fact that they are compulsory subjects for most students and are often a requirement for entry to higher education
- Biology was the only science subject in the top-ten in 2010; chemistry and physics were ranked 13th and 15th respectively
- Within the top ten, geography and art had the largest proportions of higher level sits (in excess of 70% each)
- Mathematics had the lowest rate of higher level sits (16%) followed by Irish and French at 33% and 52% respectively
- In 2010, approximately 11% of all mathematics students took foundation level mathematics, accounting for almost 6,000 sits

Figure 4.3 Top Ten Leaving Certificate Subjects by Level, 2010



Source: State Examinations Commission

4.4.2 Science Subjects

The focus of this section is on mathematics and subjects known as 'core science subjects' or 'laboratory science subjects'[17]. Some programmes offered in higher education require at least one core science subject at Leaving Certificate in addition to mathematics. For example, entry to the human nutrition & dietetics programme at DIT requires at least a grade C in higher level chemistry; the dairy business programme at UCD requires at least a grade D at ordinary level in any laboratory science subject.

Table 4.1 outlines the total number of sits, the uptake rates (i.e. the share of total students who sat each subject) and the higher level participation rates for selected science subjects between 2006 and 2010. In 2010, almost all students sat mathematics (96%) while over half (54%) sat biology. Chemistry and physics had uptake rates of 14% or less. The most notable changes over the five-year period 2006-2010 were:

- an increase in take-up rate for biology (up from 49% to 54% over the five-year period), resulting in approximately 4,400 additional sits in 2010 compared to 2006
- a decline in the take-up rate for physics (down from 14% to 12%) and, to a lesser extent, mathematics (down from 97% to 96%)

[17] Laboratory science subjects include: biology, physics, chemistry, and physics and chemistry. Physics and chemistry, sometimes abbreviated to phys-chem, is a Leaving Certificate subject which covers some elements of the physics syllabus and some of the chemistry syllabus. Candidates are not normally allowed to sit phys-chem in combination with either physics or chemistry. Subjects such as applied mathematics or agricultural science are sometimes accepted as laboratory science subjects, although this varies between college and course.

- an increase in the higher level participation rate for all subjects, except mathematics; this was the only subject which saw a decline in higher level participation between 2006 and 2010, going from 18% to 16% over the five-year period.

Table 4.1 Selected Science Subjects: Total Sits, Take-up and Higher Level Participation 2006, 2009 & 2010

Year	Maths	Biology	Chemistry	Physics	PhysChem
Total Sits (% of Total)					
2006	49,235 (97%)	24,887 (49%)	7,072 (14%)	7,335 (14%)	582 (1%)
2009	51,902 (96%)	28,100 (52%)	7,403 (14%)	6,923 (13%)	519 (1%)
2010	52,290 (96%)	29,249 (54%)	7,548 (14%)	6,745 (12%)	425 (1%)
Higher Level Participation					
2006	18%	69%	81%	71%	79%
2009	16%	72%	82%	68%	79%
2010	16%	72%	83%	72%	84%

Source: State Examinations Commission

Science Subject Combinations

Table 4.2 shows the number of Leaving Certificate students who took at least two science subjects (biology, physics, chemistry, or phys-chem) in 2010. Overall, just under 17% (almost 9,000) of Leaving Certificate students sat at least two core science subjects in 2010; this is a slight increase on a 16% share (8,677 students) in 2009. The most popular combination of core science subjects was biology and chemistry (5,116 sits), followed by chemistry and physics (1,893).

Table 4.2 Students Sitting at Least Two Leaving Certificate Science Subjects, 2010

Subject Combinations	2010 Sits
Biology & Chemistry	5,116
Chemistry & Physics	1,893
Biology & Physics	1,818
Biology & Phys-Chem	166
Total	8,993

Source: State Examinations Commission

4.4.3 Selected Business Related Subjects

Table 4.3 shows the number of Leaving Certificate students who took business, accounting or economics in the examinations in 2006, 2009 and 2010. Overall, business is the most popular subject in this group, with over a third of all Leaving Certificate candidates taking the exam. Between 2006 and 2010, the share of candidates taking business declined from 38% to 34%; a slightly smaller decline was observed for

accounting (down from 14% to 12%); despite a dip to 8% in 2009, the take-up rate for economics was 9% in both 2006 and 2009; economics was the only business related subject to experience a rise in candidate numbers which went from 4,362 to 4,857 between 2006 and 2010 (an 11% rise).

At least two-thirds of business candidates opted to take the higher level paper in each of the business related subjects outlined in Table 4.3. Higher level participation declined slightly for accounting (down from 72% to 71%) while slight increases were observed for business and economics.

Table 4.3 Selected Business Subjects: Total Sits, Take-up and Higher Level Participation 2006, 2009 & 2010

Year	Business	Accounting	Economics
Total Sits (% of Total)			
2006	19,425 (38%)	6,898 (14%)	4,362 (9%)
2009	18,425 (34%)	6,891 (13%)	4,576 (8%)
2010	18,790 (34%)	6,443 (12%)	4,857 (9%)
Higher Level Participation			
2006	66%	72%	78%
2009	67%	70%	77%
2010	68%	71%	79%

Source: State Examinations Commission

4.4.4 Selected Language Subjects

The number of students who sat the five most popular languages in the Leaving Certificate examinations in 2006, 2009 and 2010 is outlined in Table 4.4. For most second level students, English and Irish are compulsory subjects; this is reflected in the fact that these languages had the highest take-up rates each year - 95% and 82% respectively in 2010. Approximately one half of all Leaving Certificate students sat French each year while the take-up rates for German and Spanish were smaller at 13% and 7%, respectively.

Over the five-year period, 2006-2010, there was

- a decline in the take-up rate for three languages: Irish (-4 percentage points); French (-4 percentage points) and German (-2 percentage points)
- an increase in the take-up rate for Spanish, which rose from 5% to 7%
- an increase in the share of higher level sits for Irish (+4 percentage points), French (+4 percentage points) and English (+1 percentage point)

Language subjects tend to have comparatively small higher level participation rates; for each of the five languages in Table 4.4, fewer than two-thirds of students took the higher level paper in 2010; this

compares with higher level participation rates of in excess of two thirds for all other subjects (except mathematics) examined in this paper.

Table 4.4 Selected Languages: Total Sits, Take-up and Higher Level Participation 2006, 2009 & 2010

Year	English	Irish	French	German	Spanish
	Total Sits (% of Total)				
2006	48,406 (95%)	43,928 (86%)	27,809 (55%)	7,731 (15%)	2,371 (5%)
2009	51,032 (94%)	45,636 (84%)	27,675 (51%)	7,574 (14%)	3,277 (6%)
2010	51,499 (95%)	44,943 (82%)	27,574 (51%)	7,305 (13%)	3,645 (7%)
	Higher Level Participation				
2006	63%	29%	48%	62%	58%
2009	64%	32%	49%	58%	57%
2010	64%	33%	52%	60%	56%

Source: State Examinations Commission

Foreign Language Subject Combinations

Table 4.5 shows the number of students who sat two foreign languages in the 2010 Leaving Certificate examination, by languages taken[18]. The foreign languages covered are: French, German, Spanish, Italian, Russian[19] and Japanese. The analysis excludes non-curricular languages, which are not formally taught in the second level system, but which are discussed later in this section.

Almost 1,000 students sat two foreign languages in the Leaving Certificate examination in 2010. Overall, the majority (80%, or 757 students) of those who sat two foreign languages in 2010 had taken French with one other language, mostly either German or Spanish.

There has been little change in the overall numbers between 2008 and 2010 with, on average, 945 students sitting a minimum of two languages each year.

[18] In this context, the term 'foreign' is used to denote a language that is not generally spoken in Ireland and as such excludes English and Irish.

[19] Russian is unusual in that it is a curricular language, taught as a timetabled subject in very few schools, but often taken by students for whom it is a 'heritage' language (i.e. they may have studied Russian as a foreign language in another country; or they may speak Russian in the home) rather than by students learning it as a foreign language.

Table 4.5 Students Sitting at Least Two Leaving Certificate Foreign Language Subjects, 2010

	French	German	Spanish	Italian	Russian	Japanese	Total
French		319	249	50	95	44	757
German	319		56	20	43	12	450
Spanish	249	56		24	15	12	356
Italian	50	20	24		1	2	97
Russian	95	43	15	1		2	156
Japanese	44	12	12	2	2		72

Source: State Examinations Commission

Non-Curricular EU languages

Candidates may also sit examinations in a non-curricular EU language. A non-curricular EU language does not form 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 for the Leaving Certificate examination**. It is therefore a useful indicator of the minimum number of non-Irish EU nationals who sat the Leaving Certificate over the period 2006-2010. Table 4.6, which details the total number of non-curricular language sits between 2006-2010 shows that

- At 1,050 sits in 2010, there was a seven-fold increase in the number of people sitting non-curricular languages in the Leaving Certificate examination between 2006 and 2010. Assuming they were already living in the country, these students most likely entered the second level education system in September 2004 or 2005 (depending on whether they took transition year); this coincides with EU enlargement in May 2004.

Table 4.6 Non-Curricular Languages (Sits) 2006-2010

	2006 Sits	2008 Sits	2009 Sits	2010 Sits
Polish	20	171	328	451
Lithuanian	45	131	176	207
Romanian	0	67	92	121
Others*	25	65	87	97
Latvian	16	50	48	96
Portuguese	22	29	55	49
Dutch	22	28	31	29
Total	150	541	817	1,050

Source: State Examinations Commission

* Others: including Slovakian, Bulgarian, Hungarian, Swedish, Czech, Modern Greek, Finnish, and Estonian

4.4.5 Leaving Cert Achievement by Subject and Level

Table 4.7 below outlines candidates' achievements, in terms of the number of students gaining at least a grade D in the key areas of mathematics, English and core science subjects in the 2006 and 2010 Leaving

Certificate examinations. In general, students sitting higher level papers were more likely than ordinary level candidates to gain at least a grade D in these key subjects. However, with the exception of ordinary level mathematics and higher level physics, the pass rate for each of the selected subjects, at both higher and ordinary level, declined over the five year period.

When considering each of the three levels for mathematics, almost 48,000 candidates (or 92% of the total) achieved a pass grade. The pass rate at ordinary level increased from 88% to 90%; despite a one percentage point decline between 2006 and 2010, the pass rate at higher level (96%) mathematics in 2010 was amongst the highest for all subjects at any level.

In 2010, the subjects with the highest pass rates were: higher level English (98%) and mathematics (96%) and ordinary level English (96%).

Table 4.7 Leaving Cert Achievements in Core Subjects by Level (2006 & 2010)

Level	Subject	2006		2010	
		≥ D Grades	% ≥ D	≥ D Grades	% ≥ D
Higher	English	30,007	99%	32,476	98%
	Maths	8,723	97%	8,081	96%
	Biology	15,829	93%	19,046	91%
	Chemistry	5,292	93%	5,793	92%
	Physics	4,829	93%	4,540	93%
Ordinary	English	17,516	98%	17,813	96%
	Maths	31,047	88%	34,197	90%
	Biology	6,797	87%	7,109	86%
	Chemistry	1,148	84%	1,019	82%
	Physics	1,937	91%	1,652	88%
Foundation	Maths	4,990	98%	5,711	95%

Source: State Examinations Commission

4.4.6 Leaving Certificate: Gender Differences (Subject Choice and Achievement)

The top-ten Leaving Certificate subjects, broken down by gender, are presented in Table 4.8. With regard to the total number of sits, the gender distribution of sits was gender balanced for just two subjects – mathematics and English – and close to gender balanced for Irish and business, where the gender gap was just four percentage points. There were more females than males in six of the top-ten subjects with females dominating particularly in biology and home economics where the gender gap was 28 and 78 percentage points respectively. In contrast males dominated in history and geography with a gender gap of 16 and 10 percentage points respectively.

At higher level, females dominated in seven of the top ten subjects; however, males outnumbered females in mathematics, geography and history. At ordinary level, males dominated in English, Irish,

geography and history; the gender distribution of sits was balanced for ordinary level business and was almost balanced for mathematics and art (where the gender gap was just two percentage points).

At foundation level (not shown in Table 4.8), males outnumbered females in both maths and Irish: of the 4,387 foundation level Irish sits, 67% were male while out of almost 6,000 sits in foundation level maths, 54% were male.

Table 4.8 Top Ten Leaving Cert Subject Choice by Gender and Level, 2010

	Total				Higher Level				Ordinary Level			
Subject	Total Sits	M	F	Diff	Total Sits	M	F	Diff	Total Sits	M	F	Diff
Maths	52,290	50%	50%	0	8,390	54%	46%	-8	37,903	49%	51%	2
English	51,499	50%	50%	0	33,007	45%	55%	10	18,492	59%	41%	-18
Irish	44,943	48%	52%	4	14,650	35%	65%	30	25,906	52%	48%	-4
Biology	29,249	36%	64%	28	20,971	35%	65%	30	8,278	40%	60%	20
French	27,574	42%	58%	16	14,359	38%	62%	24	13,215	46%	54%	8
Geography	26,175	55%	45%	-10	20,184	54%	46%	-8	5,991	58%	42%	-16
Business	18,790	48%	52%	4	12,695	47%	53%	6	6,095	50%	50%	0%
Home Econ.	12,535	11%	89%	78	8,982	8%	92%	84	3,553	19%	81%	62
History	11,910	58%	42%	-16	7,722	56%	44%	-12	4,188	62%	38%	-24
Art	10,786	38%	62%	24	8,178	34%	66%	32	2,608	49%	51%	2%

Source: State Examinations Commission

Table 4.9 shows the gender breakdown of achievement at higher and ordinary level in the key subjects of English, mathematics, physics, chemistry and biology. Overall, the share of females who obtained at least a grade D exceeded that of males in each of the selected subjects at ordinary level and, with the exception of physics, at higher level. While the gap between females and males is mostly of the order of one-three percentage points, the gender gap in chemistry at ordinary level was considerably greater: 87% of females obtained a pass grade, compared to just 76% for males. In fact, ordinary level chemistry had the lowest pass rate of the selected subjects, for both males and females. Higher level physics was the only subject where the share of males and females obtaining grade Ds or more was identical, at 93%.

Table 4.9 Gender Breakdown of Achievement at Higher and Ordinary Level in Key Subjects, 2010

	English	%	Maths	%	Physics	%	Chemistry	%	Biology	%
Ordinary Level										
Males ≥ D	10,370	96	16,259	88	1,370	88	466	76	2,793	84
Females ≥ D	7,443	97	17,938	92	282	91	553	87	4,316	87
Higher Level										
Males ≥ D	14,395	98	4,368	96	3,251	93	2,437	91	6,577	90
Females ≥ D	18,081	99	3,713	97	1,289	93	3,356	93	12,469	91

Source: State Examinations Commission

4.5 Leaving Certificate Applied Results

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

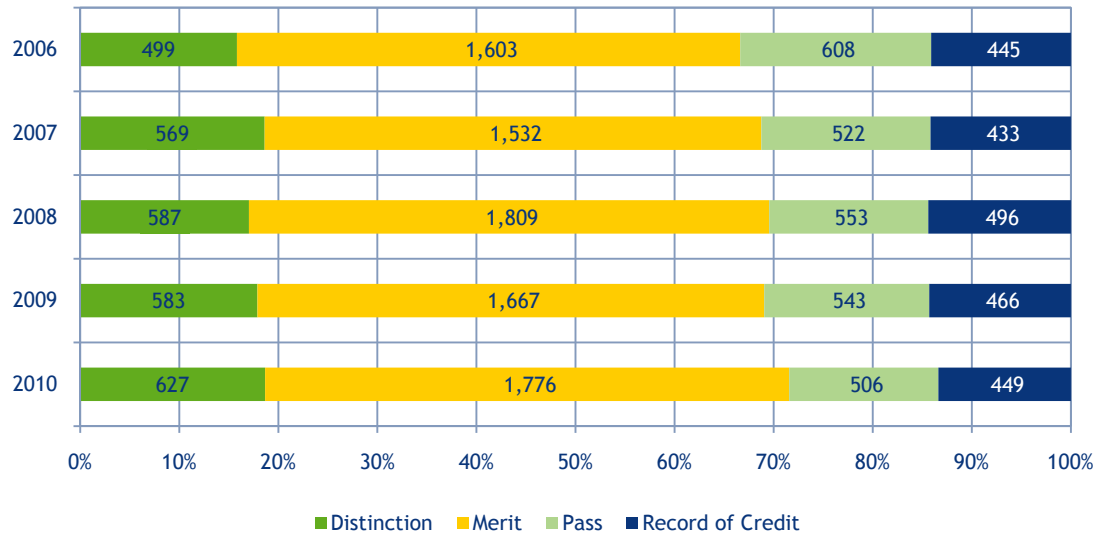
Candidates who obtain less than 60% (120 credits) or who leave school prior to the completion of the programme receive a record of credits.

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)[20] .

In 2010, 3,358 Leaving Certificate students sat the Leaving Certificate Applied Programme. The numbers of students who received a pass, merit, distinction or Record of Credit in the LCA 2006-2010 are presented in Figure 4.4. In 2010, 53% of all LCA candidates received a merit; 19% received a distinction; approximately 15% received a pass while the remaining 14% received a Record of Credit. This distribution of results is broadly in line with 2009 but, when compared to 2006, there has been a gradual shift towards a greater attainment of either merit or distinction: while in 2010, 72% of candidates received either a merit or distinction, this share had increased from 67% in 2006.

Figure 4.4 Leaving Certificate Applied Results, 2006-2010



Source: State Examinations Commission

4.6 Overall Leaving Certificate Performance (LCE & LCVP only)

There is a strong link between prior education attainment (i.e. overall performance in the Leaving Certificate examination) and progression to year two and beyond at third level (HEA: 2010)[21]. The higher a student's prior educational attainment, the more likely they are to progress to the following academic year. For example, the non-progression rate of students who gained CAO 405-450 points (e.g. three C3 grades and three B3 grades at higher level) was 9%, compared to 14% for those who gained 355-400 points (e.g. six C3 grades at higher level). This section looks at Leaving Certificate candidates' performance in terms of the number of CAO points achieved.

[20] For 2010, 40 higher education institutions offered progression to a wide variety of undergraduate higher education programmes spanning levels 6-8 on the NFQ to holders of FETAC major awards.
[21] HEA (2010) *A Study of Progression in Higher Education*

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.

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, subjects carry equal points and points are awarded for each grade as per Table 4.10 below. However, bonus points for higher level mathematics are awarded by some higher level institutions (e.g. University of Limerick, DIT (for selected courses)). 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 4.10 Leaving Certificate Grade Points

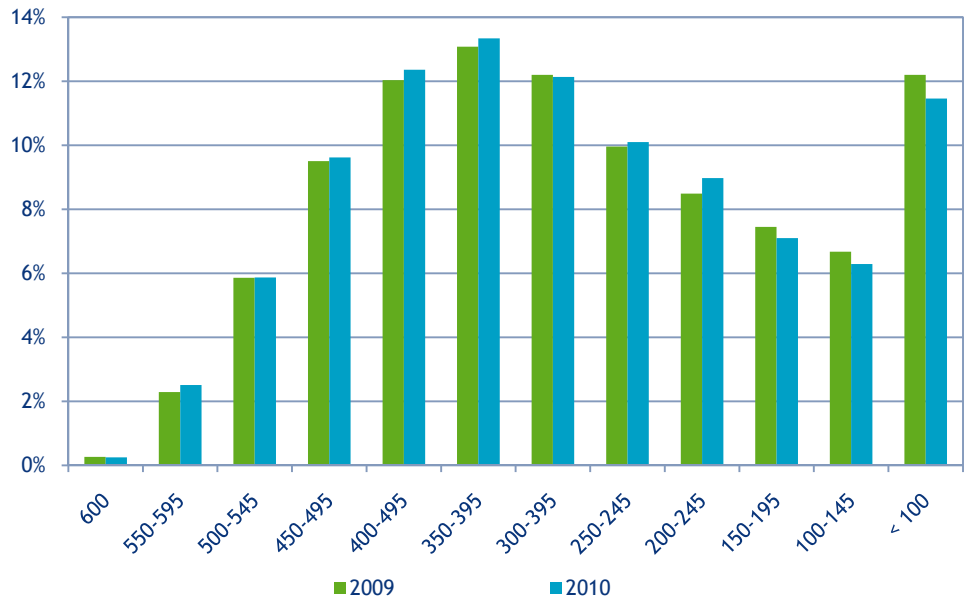
	A1	A2	B1	B2	B3	C1	C2	C3	D1	D2	D3	<E
%	90-100	85-89	80-84	75-79	70-74	65-69	60-64	55-59	50-54	45-49	40-44	0-39
Higher Level	100	90	85	80	75	70	65	60	55	50	45	0
Ordinary Level	60	50	45	40	35	30	25	20	15	10	5	0

Source: CAO

Figure 4.5 compares the points achievements for CAO applicants in 2009 and 2010. 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 2009 and 2010. The data presented here refers to nominal points achievements only and bonus points that may be awarded 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 A1 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) declined slightly.

Figure 4.5 CAO Points Achievements for Leaving Certificate Applicants in 2009 & 2010



Source: CAO

Chapter 5 Further Education and Training

Key Points

- There were almost 176,570 FETAC award holders in 2010, an increase of more than a third on the 2008 number (amounting to an additional 45,000 learners)
- The number of award holders increased for each award type except Special Purpose awards between 2008 and 2010
- Almost one fifth of award holders in 2010 gained major awards
- There were almost 350,000 FETAC awards in 2010
- An increasing share of FETAC awards are being made to male recipients; their share increased from 45% to 47% between 2008 and 2010
- FETAC awards were most likely to be made to younger learners – just under one half were aged less than 30; however older learners (aged 40+) increased their share of awards from 25% to 27% between 2008 and 2010
- With almost 191,000 awards, level 5 accounted for more than one half of all awards in 2010
- Approximately one quarter of all FETAC awards were in the services field of learning (e.g. health & safety, customer care and security); 22% were in core skills, language and general studies
- The largest provider types for FETAC awards were VECs/schools, FÁS and private providers with 44%, 27% and 18% of all awards made respectively in 2010
- In 2010, more than 14,000 of all CAO applicants were FETAC major award holders (amounting to almost one fifth of all CAO applicants)

5.1 Introduction

The focus of this chapter is on the supply of skills emerging from the further education and training (FET) sector in Ireland. FET awards have been placed across levels 1-6 on the NFQ and are made in each category of award type (major, minor, special purpose and supplemental, as detailed in Chapter 1). The education and training provided in the FET sector ranges from short courses to longer programmes, including apprenticeships.

Providers of further education and training in Ireland range from state to semi-state and private organisations. However, a significant share of FET courses across all sectors lead to FETAC (the Further Education and Training Awards Council) awards, which is the national awarding body for FET in Ireland. In 2010, over 900 registered FETAC providers offered programmes leading to FETAC awards. The main 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.

While FETAC is the most significant awarding body in terms of the number of awards made in FET in Ireland, there also exist other awarding bodies (both Irish and international) operating mostly, although not exclusively, in the private FET sector (e.g. City & Guilds). However, the availability of comparable data is limited and only further education and training that leads to a FETAC award is considered in this chapter.

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.

5.2 Overview of Awards Data

Table 5.1 shows the number of FETAC awards and award holders for 2008-2010 by award type. Award holders may obtain more than one type of award; therefore, the number of award holders for individual award types does not sum up to the number in the 'Total' row of Table 5.1. Overall, there were almost 176,570 award holders in 2010, representing an increase of more than a third on the 2008 number (131,000 award holders). This equates to an additional 45,000 award holders, with the bulk of this increase occurring between 2008 and 2009 (almost 44,000 additional award holders). Each year, the number of award holders increased for each award type except Special Purpose awards. The number of special purpose award holders declined by a third over the two year period, going from almost 17,200 in 2008 to 11,300 in 2010. Almost one fifth of award holders in 2010 gained major awards, a share slightly higher than in 2009 (16%), but broadly similar to that of 2008.

Overall, the number of awards increased by almost 60% between 2008 and 2010, going from approximately 220,000 in 2008 to approximately 348,000 in 2010. With the exception of Special Purpose awards, there were increases each year for each award type over the same period. Minor awards made up 87% of all FETAC awards in 2010; major awards, 9% and specific purpose awards, 3%. Supplemental awards made up less than 0.5% of awards each year.

Table 5.1 FETAC Awards by Type and Candidate, 2008-2010

Year	2008		2009		2010	
Award Type	Awards	Award Holders	Awards	Award Holders	Awards	Award Holders
Certificates (Major)	24,429	24,429	28,772	28,722	31,764	31,764
Component (Minor)	177,228	93,910	268,680	135,804	303,577	141,046
Specific (Special) Purpose	17,176	17,176	16,087	16,087	11,337	11,337
Supplemental	717	717	1,281	1,281	1,327	1,327
Total	219,550	131,089*	314,820	174,870*	348,005	176,570*

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

The distribution of awards by NFQ level over the period 2008-2010 is presented in Table 5.2. With almost 191,000 awards, level 5 accounted for more than one half of all awards in 2010; level 3 and 4 awards accounted for almost a fifth of the total each (63,000 at NFQ 3 and 61,000 at NFQ 4); 9% of awards made were at level 6, while awards at levels 1 and 2 made up a negligible share.

Between 2008 and 2010, the share of awards at level 5 increased (from 49% to 55%) but declined slightly at levels 3, 4 and 6. The share of awards at levels 1 and 2 did not change significantly, mainly due to the comparatively low numbers involved.

Table 5.2 FETAC Awards by NFQ Level, 2008- 2010

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Total
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
2010	560	1,243	63,429	61,458	190,751	30,564	348,005

Source: FETAC

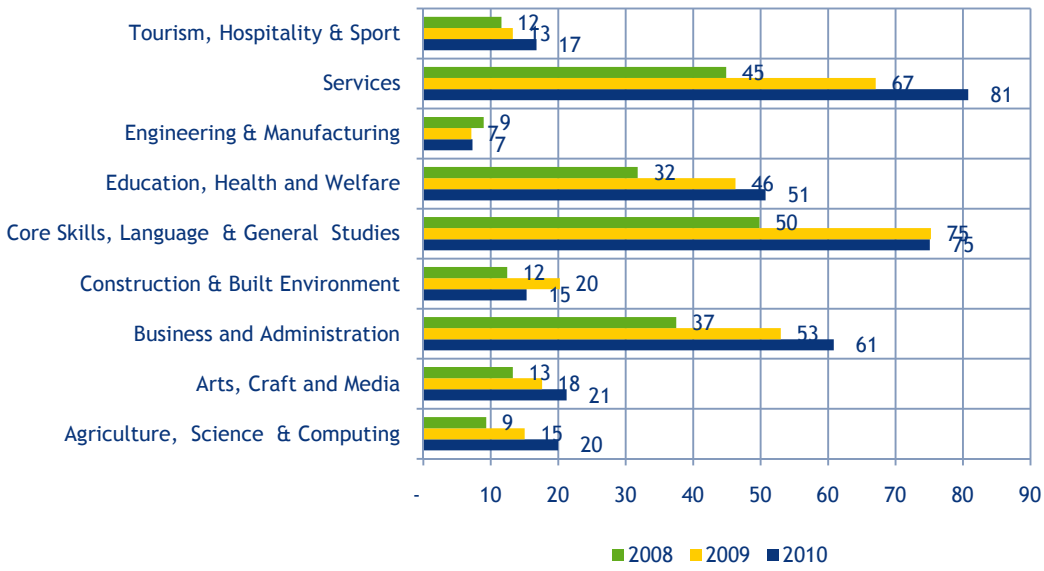
5.2.2 Awards by Field of Learning

Note: in contrast to preceding issues of the Monitoring Ireland's Skills Supply reports, the field of learning for FETAC awards is based on the FETAC field of learning classifications and not, as has previously been the case, on ISCED (International Standard Classification of Education) field of learning categories. For comparative purposes, FETAC awards data for 2008 and 2009 is also provided by FETAC field of learning categories. Data in Table 1.1 in the Executive Summary of this report is provided by ISCED field of learning; the data presented in the aforementioned table is not comparable to the field of learning data in this chapter. FETAC field of learning categories are provided in Appendix A.

Figure 5.1 provides a breakdown of FETAC awards data by field of learning. Almost one quarter of all FETAC awards in 2010 were made in the services category (which includes awards such as food preparation, health and safety, logistics, customer care and security); a further 22% were in core skills, language and general studies (e.g. communications, literacy awards, personal development). The distribution of awards by field of learning category has remained largely similar over the three-year period.

In line with the overall increase in FETAC awards observed between 2008 and 2010, there were increases across most fields of learning. The most notable exception was for awards in engineering and manufacturing which declined from almost 9,000 in 2008 to 7,300 in 2010; this decline was chiefly the result of a reduced number of BER assessment awards, which fell by approximately 3,000 over that period. While the total number of awards in construction and the built environment in 2010 appeared to be above 2008 levels, this is partly related to a reclassification of certain courses within the plant operators category (i.e. construction) which had previously been in the services category, as well as increases in the number of insulation installation and computer aided draughting courses within the construction category.

Figure 5.1 FETAC awards by field of learning (000s), 2008-2010



Source: FETAC

5.2.3 Awards by recipient gender

Table 5.3 shows the gender distribution of FETAC awards recipients in 2008, 2009 and 2010. Overall, slightly more awards were made to female recipients than males every year (53% for females compared to 47% for males in 2010). The gender distribution of level 6 awards recipients was balanced in 2010, although it had been skewed towards male recipients in the preceding years.

While females dominated at levels 5 and 3, awards at levels 1, 2 and 4 were most likely to be made to male recipients.

Table 5.3 FETAC awards by NFQ level, 2008-2010

	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
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%
2010	77%	23%	68%	32%	48%	52%	62%	38%	42%	58%	50%	50%	47%	53%

Source: FETAC

5.2.4 Awards recipient age

The distribution of FETAC awards made to learners by age group is presented in Table 5.4. FETAC awards were most likely to be made to younger learners: just under one half of learners were aged less than 30 years, with a further fifth aged between 30 and 39 years. In 2010, approximately one third of awards were made to learners aged 40 or over.

The share of awards made to older learners increased slightly over the period 2008-2010, with the share made to learners aged 40 and over rising from 28% to 31%.

Table 5.4 FETAC awards by recipient age, 2008-2010

	15-19	20-29	30-39	40-49	50-59	60+
2008	18%	30%	21%	16%	9%	3%
2009	16%	28%	22%	18%	11%	3%
2010	20%	28%	21%	17%	10%	4%

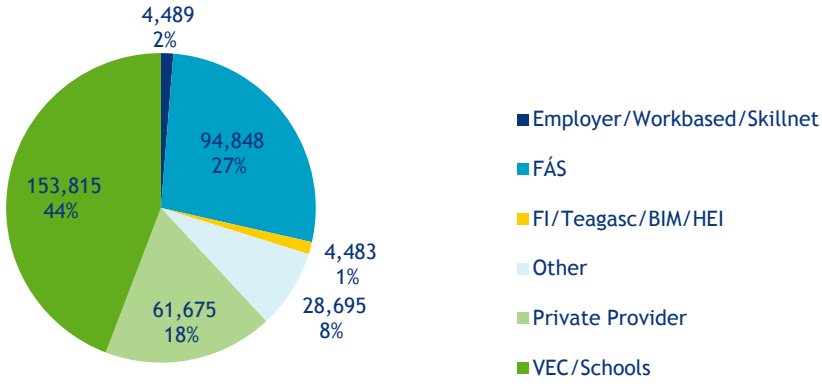
Source: FETAC

5.2.5 Awards providers

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 providers[22] and overestimating that of others.

The distribution of FETAC awards made in 2010 by the main provider types is presented in Figure 5.2. The largest provider types were VECs/schools, FÁS and private providers with 44%, 27% and 18% of all awards made respectively in 2010. The distribution of award by provider type is broadly similar to that of preceding years. However, there has been a six percentage point increase in the number of VEC/Schools awards, a four percentage point decline for FÁS courses and a one percentage point decline each in the share of awards made by private providers and employer/workbased/skillnet courses.

Figure 5.2 FETAC awards by provider type, 2010



Source: FETAC

FI/Teagasc/BMI/HEI refers to the combined number of awards for courses at: Failte Ireland, Teagasc, Bord Iscaigh Mhara, and higher education institutions

5.3 Major Awards

Between 2009 and 2010, there was an 11% rise in the total number of major awards, bringing the total from almost 29,000 to almost 32,000.

Award Level: at almost 21,000, level 5 made up the largest share of major awards, accounting for almost two thirds of the total in 2010 (Table 5.5); this was followed by level 6 with almost 7,000 awards (22%). Most of the remaining awards were made at levels 3 and 4 (a combined total of almost 4,000 awards). The combined share of level 1 and 2 awards amounted to less than 2% (or just under 500 awards).

The distribution of major awards by NFQ level was similar to that of 2009, with the exception of an increased share of awards at level 5 (61% in 2009 compared to 65% in 2010) and a fall in the share of awards at levels 3 and 6 (down from 9% and 24% to 8% and 22% respectively).

[22] 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.

Awards by Field of Learning: approximately 30% of major awards (almost 9,700) were made in the field of education, health and welfare, the vast majority of which were at level 5 (e.g. childcare, healthcare support). This was followed by business and administration awards, which amounted to a fifth (6,500) of all major awards, most of which were also at level 5 and typically for courses such as business and secretarial studies. Craft awards, which are level 6 major awards and are made mostly in the fields of construction and engineering, fell by 21%, going from 4,194 to 3,297 between 2009 and 2010.

Table 5.5 Major awards by NFQ level and field of learning, 2010

Major Awards	NFQ 1	NFQ 2	NFQ 3	NFQ 4	NFQ 5	NFQ 6	Total
Agriculture, Science & Computing	-	-	-	67	1,735	1,084	2,886
Art, Craft & Media	-	-	-	-	2,161	314	2,475
Business & Administration	-	-	196	214	5,291	784	6,485
Construction and the Built Environment	-	-	-	3	257	1,632	1,892
Core Skills, Language & General Studies	170	281	2,406	527	317	-	3,701
Education, Health & Welfare	-	-	-	20	8,691	955	9,666
Engineering & Manufacturing	-	-	-	13	279	1,766	2,058
Services	-	-	-	10	608	90	708
Tourism, Hospitality & Sport	-	-	-	519	1,165	209	1,893
Total	170	281	2,602	1,373	20,504	6,834	31,764

Source: FETAC

Major awards by recipient gender: more major awards were made to females than males in 2010 (58% for females; 42% for males); when broken down by award level, females dominated at levels 3, 4 and 5 (70% of level 5 major awards were made to females); males dominated at levels 1, 2 and 6 (71% of level 6 awards were made to males). The gender distribution of awards by level is, in part, a reflection of the type of courses for which the awards were made: in 2010, almost one half of all level 6 major awards were for craft awards, which are typically male-dominated areas (e.g. carpentry and joinery), while 40% of level 5 major awards were made for courses in childcare, healthcare, hairdressing and secretarial courses – traditionally female-dominated fields.

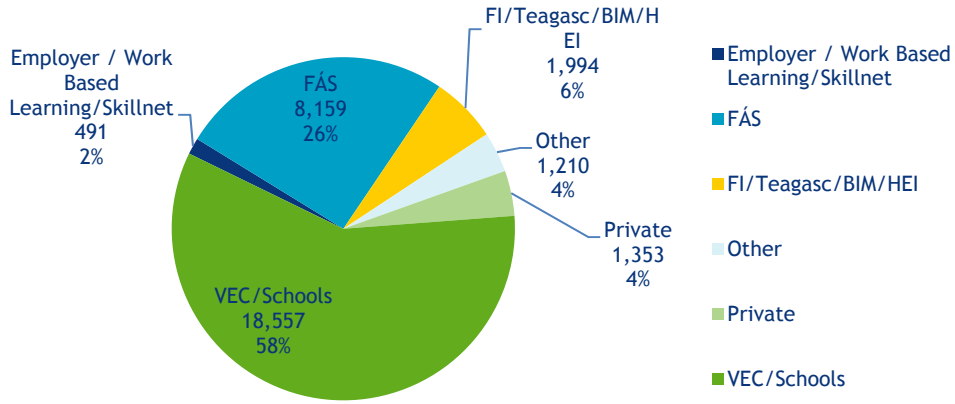
The share of level 6 awards made to males in 2010 declined compared to 2009, going from 80% to 71%. The decline is related to the 21% fall in the number of craft awards made between 2009 and 2010.

Major awards by recipient age: in 2010, more than 60% of major awards were made to recipients aged less than 30 years; 30% went to those aged between 30 and 49 years. This age distribution is broadly in line with 2009.

Major awards by provider: in 2010, the majority of major awards were made for courses taken at either VECs/Schools or FÁS, accounting for 58% and 26% of the total respectively. Compared to 2009, the

distribution of the 2010 awards by provider type was largely similar, with the exception of an eight percentage point rise in awards made for courses taken at VECs/school and a four and three percentage point decline for FÁS and FI/Teagasc/BIM/HEI* courses respectively. The decline in the FÁS share of awards is largely due to the 21% decline in construction related awards (i.e. apprenticeship craft awards). The total decline in the number of FÁS major awards between 2009 and 2010 was almost 1,100, 900of which were for craft awards – awards traditionally associated with the construction industry.

Figure 5.3 Major Awards by Provider Type, 2010



Source: FETAC

*FI/Teagasc/BMI/HEI refers to the combined number of awards for courses at: Fáilte Ireland, Teagasc, Bord Iscaigh Mhara, and higher education institutions

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 (or a combination of these two) in order to compute CAO points. In 2009, more than 8,100 (or 11%) of all CAO applicants were holders of a FETAC major award; by 2010, this number had increased to in excess of 14,000 (or almost one fifth of all applicants)[23]. 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 2009 and 2010, the number of minor award holders rose by approximately 4% or an additional 5,000 individuals to reach approximately 141,000 by 2010. In 2010, there were 303,577 awards made to 141,000 individuals, translating into approximately two minor awards per candidate, on average.

[23] FETAC Annual Report 2009: Highlights; FETAC Annual Report 2010: Highlights.

Award Level: More than one half of all minor awards were at level 5; awards at levels 3 and 4 each accounted for 20%,while 7% of minor awards were at level 6; the combined number of awards at levels 1 and 2 accounted for less than 0.5%.

The distribution of minor awards by NFQ level was similar to that of 2009, with the exception of an increased share of awards at levels 4, 5 and 6 (19%, 50% and 6% in 2009 compared to 20%, 53% and 7% in 2010 respectively) and a fall in the share of awards at levels 3 (down from 25% to 20%).

Awards by Field of Learning: At more than 77,000 in 2010, one quarter of all minor awards were in the services field of learning (e.g. occupational first aid, manual handling, security skills); a further 24% (approximately 71,000) were for core skills, language and general studies (e.g. communications, computer literacy, work experience); business and administration awards, at in excess of 54,000 awards, made up almost a fifth of the total (Table 5.6). More than one fifth (38,000) of the combined number of level 5 and 6 awards were made in the field of education, health and welfare, (mainly for awards in train the trainer, child education and childcare).

When compared to 2009, the share of awards for core skills, language and general skills declined from 27% to 24%, while the share of awards in services (25% in 2010), tourism, hospitality and sport (5%) and agriculture, science and computing (13% in 2010) increased by one percentage point each.

Table 5.6 Minor awards by level and field of learning, 2010

Minor Awards	NFQ 1	NFQ 2	NFQ 3	NFQ 4	NFQ 5	NFQ 6	Total
Agriculture, Science & Computing	14	1	4,881	1,629	8,687	1,714	16,926
Art, Craft & Media	27	42	6,115	1,845	9,474	1,263	18,766
Business & Administration	-	-	3,220	12,405	33,976	4,686	54,287
Construction & the Built Environment	-	-	611	1,150	3,583	484	5,828
Core Skills, Language & Gen.Studies	349	919	36,235	8,216	24,137	1,531	71,387
Education, Health & Welfare	-	-	1,073	998	28,736	9,339	40,146
Engineering & Manufacturing	-	-	1,420	369	1,612	631	4,032
Services	-	-	3,779	31,219	42,030	366	77,394
Tourism, Hospitality & Sport	-	-	3,493	1,913	8,391	1,014	14,811
Total	390	962	60,827	59,744	160,626	21,028	303,577

Source: FETAC

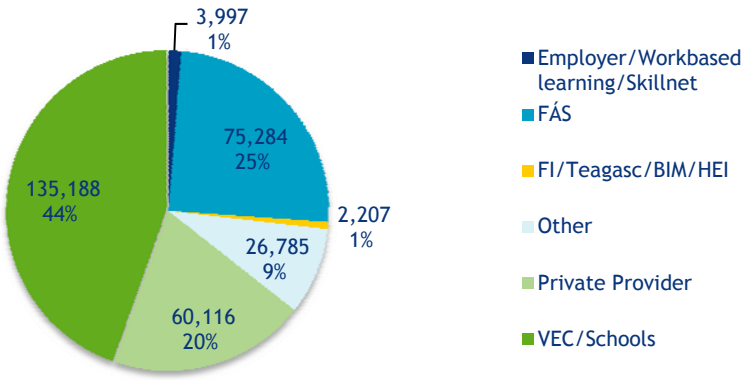
Note on award recipients by gender and age: award holders who receive a component certificate have typically achieved a combination of one or more minor awards. Detailed data on the gender and age of the award holders is given at the minor award level but not at the aggregate component certificate level. When interpreting the data by gender and age, it should be borne in mind that the data pertains to the gender or age of the person receiving each individual minor award and not the number of award holders.

Minor awards by recipient gender: overall, slightly more minor awards were made to females than to males (54% female, 46% male); nonetheless, males have been making steady gains in the share of minor awards, going from 40% in 2007 to 42% in 2009 and 46% in 2010. The gender distribution was not constant across all NFQ levels: with at least a 60% share, females dominated at levels 5 and 6; males dominated at levels 1, 2 and 4 (with shares ranging from 62% to 77%); the distribution was closest to gender balanced at level 3, where only slightly more awards went to females than males (52% compared to 48%). The gender gap was greatest towards the lower NFQ levels with at least two thirds of awards at levels 1 and 2 being made to male recipients.

Minor awards by recipient age: almost one half (47%) of all minor awards were made to recipients aged less than 30; 21% were aged between 30 and 39, with approximately 30% aged over 40; this distribution is almost identical to that of 2009.

Minor awards by provider type: 44% of minor awards were made for courses taken at VECs/schools; one quarter was made for FÁS courses; private providers had the third largest share at 20%. This distribution is similar to that of 2009, although there was a four percentage point gain for VECs/schools and declines for FÁS (down two percentage points) and private providers (down one percentage point).

Figure 5.4 Minor awards by provider type, 2010



Source: FETAC

*FI/Teagasc/BMI/HEI refers to the combined number of awards for courses at: Failte Ireland, Teagasc, Bord Iscaigh Mhara, and higher education institutions

5.5 Specific Purpose Awards

At over 11,300 in 2010, the number of specific purpose holders declined by approximately 30% compared to 2009. This continues the downward trend observed in recent years (there was a 6% decline between 2008 and 2009).

Award Level: as in previous years, specific purpose awards were made at levels 4, 5 and 6 only; the majority (85%, or 9,600 awards) were made at level 5; with 12% at level 6 and the remaining 3% at level 4; in line with the overall decline in special purpose awards, there were declines at all levels when compared to previous years.

Awards by Field of Learning: more than one half of all specific purpose awards were in the field of construction and the built environment (Table 5.7): these awards related mostly to best practice training (three-day courses) for private and public sector employees working in the construction industry, mainly roads construction). In 2009, construction related specific purpose awards accounted for more than three quarters of the total - a higher share than in 2010.

Services (including warehousing, construction related driving) awards accounted for almost one quarter of specific purpose awards while education, health and welfare and engineering & manufacturing accounted for 8% and 9% of the total respectively.

Table 5.7 Specific Purpose Awards by field of learning and NFQ level, 2010

Specific Purpose Awards	NFQ 1-3	NFQ 4	NFQ 5	NFQ 6	Total
Agriculture, Science & Computing	-	113	-	64	**177**
Business & Administration	-	39	13	11	**63**
Construction & the Built Environment	-	87	6,269	104	**6,460**
Education, Health & Welfare	-	-	-	927	**927**
Engineering & Manufacturing	-	-	820	161	**981**
Services	-	96	2,519	50	**2,665**
Tourism, Hospitality & Sport	-	6	-	58	**64**
Total	**0**	**341**	**9,621**	**1,375**	**11,337**

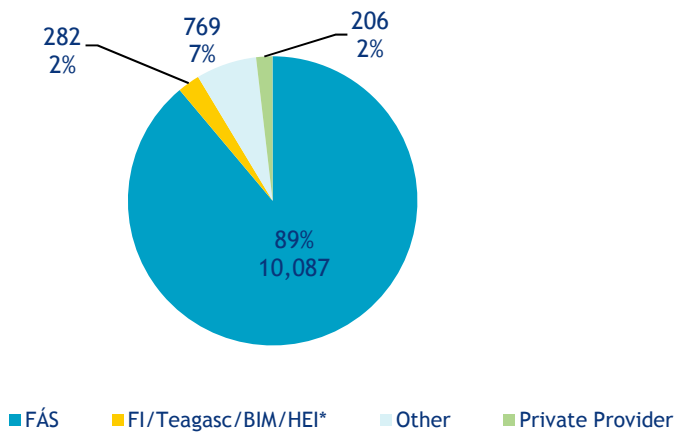
Source: FETAC

Specific purpose awards by recipient gender: specific purpose awards were far more likely to be made to male recipients than females (95% for males versus 5% for females); the share of awards made to females was highest at level 4 (and were made for courses in agriculture (mushroom harvesting) or business (secretarial), for example).

Specific purpose awards by recipient age: Specific purpose award holders had one of the oldest age profiles of FETAC awards recipients, with almost half of the total being made to recipients aged 40 or more. Those aged less than 30 accounted for less than one quarter.

Specific purpose awards by provider type: almost 90% of specific purpose awards were for FÁS courses; other providers (mainly other public service agencies) made up 7% of the total, followed by FI/TEAGASC/BIM/HEI (mostly TEAGASC awards). This pattern of awards by centre type is similar to that of 2009, although the relative share for FÁS and FI/TEAGASC/BIM/HEI declined by two percentage points and one percentage point respectively, while that of the 'other' sector (i.e. other public service agencies) increased from less than 1% to 7%; these awards related primarily to driving instruction courses.

Figure 5.5 Specific purpose awards by provider type, 2010



Source: FETAC

*FI/Teagasc/BMI/HEI refers to the combined number of awards for courses at: Fáilte Ireland, Teagasc, Bord Iscaigh Mhara, and higher education institutions

5.6 Supplemental Awards

There were just over 1,327 supplemental awards made in 2010, a slight increase on the 1,280 awards in 2009. All supplemental awards were made at level 6 only and were made mostly for FÁS heating installation programmes.

Almost all (99%) supplemental awards were made to male recipients. The age profile of supplemental award recipients was slightly older than that of other award types, with award being concentrated in the 20-39-year age cohort (almost three quarter of all supplemental awards were in this category); the share of older awards recipients (those aged 40 or over) fell from 31% in 2009 to 28% in 2010.

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

Key Points

- **CAO Acceptances**: there were almost 45,600 CAO acceptances (NFQ 6-8) in 2010; at level 6, an increase of 9% occurred while a 6% decline occurred at level 7. Level 8 acceptances remained relatively unchanged year-on-year
- **Graduate Output**: there were almost 38,400 graduates at levels 6-8 in 2009, primarily at level 8; graduate output declined across all levels between 2008 and 2009, most noticeably at level 6 with an 18% decline
- **Outlook**: while output at levels 7 and 8 is expected to increase in the short- to medium-term, level 6 output is unlikely to recover to its previous levels
- **Engineering**: The decline in graduate output that occurred since 2006 has slowed while the impact of recent rises in CAO acceptances has yet to be realised
- **Construction**: This is the first year that a decline has been observed in output from construction courses – the significant drop in CAO acceptances would suggest that this downward trend is set to continue, and indeed intensify, in the medium term
- **Computing**: Graduate output has been in decline in recent years, with a 13% year-on-year decline between 2008 and 2009. The increase in CAO acceptances, particularly since 2008, would indicate that a reversal of this trend is likely in the short-term
- **Science**: While graduate output experienced an increase between 2007 and 2008, reversing the downward trend of previous years, this increase was short-lived. Although CAO acceptances have shown signs of recovery, output declined by 7% in 2009
- **International Comparison**: at 26%, Ireland's graduation rate from Tertiary Type B courses (comparable to ordinary degree/higher cert) is well above the EU and OECD averages (6% and 8% respectively). Ireland also performs well above the EU and OECD averages at Tertiary Type A level (comparable to honours bachelor degree programmes) (46% for Ireland compared to 40% and 38% for the EU and OECD)

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). 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 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. As CAO acceptances refer only to full-time courses and do not include some mature or access students (who may enter through direct entry methods), the numbers are likely to be smaller than the new entrant enrolment figures. Nonetheless, with CAO acceptance data available a year ahead of enrolment data, it remains the most up-to-date indication of the number of full-time first year entrants to programmes at levels 6-8.

6.2.1 CAO Acceptances by NFQ Level

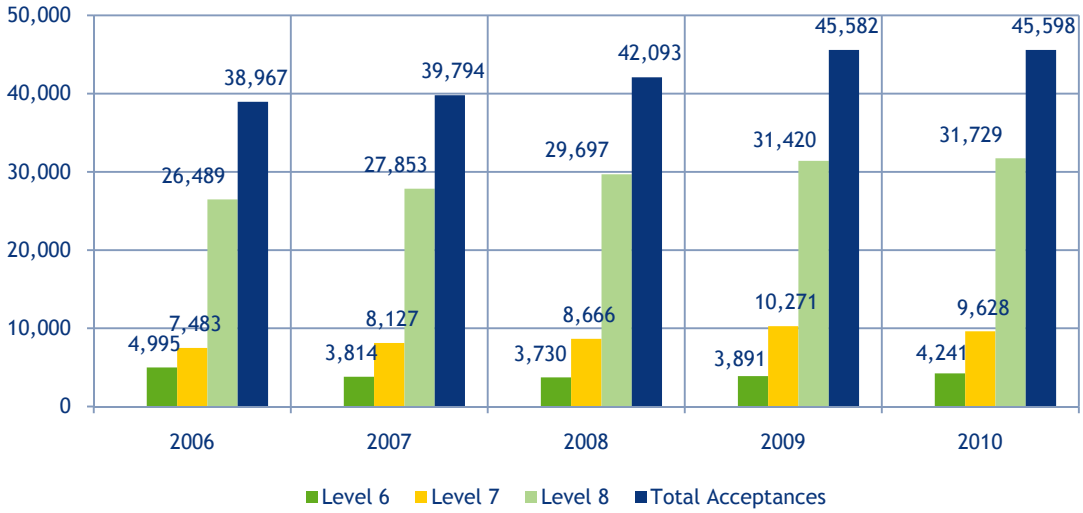
Figure 6.1 provides the total number of CAO acceptances by NFQ level for the period 2006-2010. Over this period, the total number of people who accepted a place on a full-time undergraduate course in Irish higher education grew by a fifth, going from almost 39,000 in 2006 to almost 45,600 in 2010. The greatest increase occurred between 2008 and 2009 when numbers increased by 8% or almost 3,500 in absolute terms, while very little changes occurred in the overall number of acceptors between 2009 and 2010.

Level 6: Although total CAO acceptances did not change over the period 2009 to 2010, level 6 experienced an increase of 9%. Despite this increase, 750 fewer people accepted a place on a level 6 programme in 2010 compared to 2006.

Level 7: Although the number of acceptances at this level increased by 29% over the period 2006-2010, they actually declined by 6% year-on-year between 2009 and 2010.

Level 8: The number of acceptances for level 8 programmes has been rising steadily in recent years (by an average of 6% annually), growing from almost 26,500 in 2006 to 31,730 in 2010.

Figure 6.1 CAO Total Acceptances by level, 2006-2010



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 the period from 2006 to 2010. At levels 7/6, while the number of acceptances for those aged 16-17 has declined over this period, those aged 23 or over have more than doubled; this increase has been most pronounced since 2008.

At level 8, while the number of acceptances for those aged 16-17 showed gains between 2006 and 2009, a 4% decline occurred year-on-year between 2009 and 2010. In contrast, continued gains have occurred in the number of persons aged 23 and over accepting places in higher education, with a 15% increase between 2009 and 2010 alone.

Table 6.1 CAO Acceptances by level and age, 2006-2010

	Level 7/6					Level 8				
Age	**2006**	**2007**	**2008**	**2009**	**2010**	**2006**	**2007**	**2008**	**2009**	**2010**
16-17	5,454	5,303	5,351	5,523	4,904	12,628	13,043	13,847	13,930	13,339
18-22	5,374	5,337	5,521	6,118	6,095	11,049	12,021	12,841	13,791	14,150
23+	1,211	1,418	1,540	2,518	2,892	2,576	2,784	3,012	3,701	4,239
Total	12,039	12,058	12,412	14,159	13,891	26,253	27,848	29,700	31,422	31,728

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 Table 6.2). The time period for comparisons covers 2009 and 2010.

In 2010, the disciplines with the greatest number of acceptances differed according to NFQ level. While 42% of all level 7 acceptances were for technology-related courses, only 23% of level 8 acceptances were in technology. Arts and humanities accounted for 32% of all level 8 acceptances while take-up in this discipline was significantly less at levels 6 and 7.

Table 6.2 CAO Acceptances by Discipline, Level 6-8, 2010

	Level 6		Level 7		Level 8	
	Acceptances 2010	% Change 09-10	Acceptances 2010	% Change 09-10	Acceptances 2010	% Change 09-10
Engineering	692	-3%	1,488	-5%	1,500	8%
Construction	192	-33%	822	-26%	898	-14%
Computing	189	24%	1,071	-5%	1,427	3%
Science	420	0%	693	-14%	3,532	1%
Total Technology	1,493	-5%	4,074	-12%	7,357	0%
Health & Welfare	108	-8%	323	-8%	4,333	4%
Agriculture & Veterinary	156	-15%	312	6%	463	-5%
Total Health, Vet & Agriculture	264	-12%	635	-2%	4,796	3%
Arts & Humanities	85	81%	750	-15%	10,192	2%
Social Sciences, Business & Law	1,630	-11%	2,767	1%	6,517	-3%
Education	41	52%	119	14%	2,282	2%
Services	728	574%	1,283	-1%	585	5%
Total Other	2,484	23%	4,919	-2%	19,576	1%
TOTAL	4,241	9%	9,628	-6%	31,729	1%

Source: CAO

CAO Acceptances (NFQ 6-8): Technology

Total technology acceptances in 2010 experienced a decline of 5% on the previous year; the decline is attributable to the significant decline in the number of acceptances on construction courses across all NFQ levels; in particular, level 6 construction acceptances declined by a third. These declines were signalled in the 2010 CAO Applicant data.

Across levels 6 and 7, computing at level 6 was the only discipline that did not experience a decline in numbers year-on-year. Level 8 technology disciplines had a more positive outcome with increases across all disciplines, excluding construction, albeit modest in some cases.

Engineering: acceptances at level 8 continued to increase, while levels 6 and 7 both experienced declines on the previous year.

Construction: significant declines in acceptances across all levels continued in 2010 as a reaction to the downturn in the construction sector. These declines are not expected to recover in the short-term.

Computing: With an additional 47 acceptances, the increase in level 8 acceptances was not as large as in recent years. A decline of 5% occurred at level 7, although numbers are still considerably higher than in 2006.

Science: Level 8 acceptances remained broadly static at approximately 3,500 in 2010 after increasing steadily in recent years. At level 7, acceptances decreased by 14% while level 6 acceptances remained static.

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

Health and Welfare: The vast majority (90%) of healthcare course acceptances were for level 8 programmes. The 4% increase that occurred between 2009 and 2010 was primarily due to an increase in the number of acceptances on social care courses. Both level 6 and 7 acceptances dropped by 8%, albeit from a smaller base.

Agriculture & Veterinary: Acceptances at levels 6 and 8 experienced a decline of 15% and 5% respectively although the numbers involved are small.

CAO Acceptances (NFQ 6-8): Other Disciplines

Arts & Humanities: Acceptances in this discipline were predominantly at level 8. At over 10,000, the arts & humanities discipline accounted for 32% of all acceptances at level 8 in 2010, and experienced a 2% increase on the previous year.

Social Science, Business & Law: While a decline of 3% occurred at level 8, this discipline alone accounted for a fifth of all level 8 CAO acceptances in 2010. At level 6, a decline of 11% occurred, with acceptance numbers returning to 2008 levels. At level 7, acceptances increased by 1% in the period examined.

Services: The numbers of acceptances on services courses at level 6 increased dramatically in 2010 due to a number of new courses primarily in culinary arts and also bar supervision and hospitality studies.

6.2.4 CAO Applicant Data 2011

CAO applicant statistics from February 1st 2011 give early indications of trends emerging for those potentially entering the higher education system in September 2011, 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 2011 include:

- The number of applicants to the CAO decreased marginally between 2010 and 2011 to 71,466.

- Technology: While construction-related 1st preference applications at level 8 are down on 2010, the numbers involved are relatively small. Encouragingly, 1st preference applications for science-related courses are up 6% on the previous year. At levels 7/6 the reverse is the case with increases for construction courses and a decline of 10% in 1st preference applications for science courses.
- Health, Veterinary & Agriculture: 1st preference applications for level 8 healthcare courses declined by 1% on the previous year; while numbers are down for medicine, nursing applications increased slightly. In percentage terms, dentistry and pharmacy experienced the most significant changes with a 14% decline and 30% increase respectively although the numbers involved are small. At levels 7/6, an increase occurred, primarily due to an increase of 18% in the number of applicants listing dental studies as their 1st preference. Agriculture showed significant gains at level 8 in percentage terms, while 1st preference applications almost halved at levels 7/6.
- Other Disciplines: While the number of 1st preference applications for level 8 education courses remained steady, declines occurred in the number of applications for law and administration/business courses. Arts and social science experienced a decline of 11% in the number of 1st preference applicants at level 7/6 while administration/business applicants increased by 8%.
- Student Statistics: The numbers of mature students and applicants who hold FETAC qualifications applying for higher education courses through the CAO system have remained relatively steady year-on -year between 2010 and 2011.

6.3 Undergraduate Enrolments

While enrolment data lags behind that of CAO acceptance data (by one academic year), it is useful as it captures part-time students and others who may have entered higher education directly rather than through the CAO process. 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.

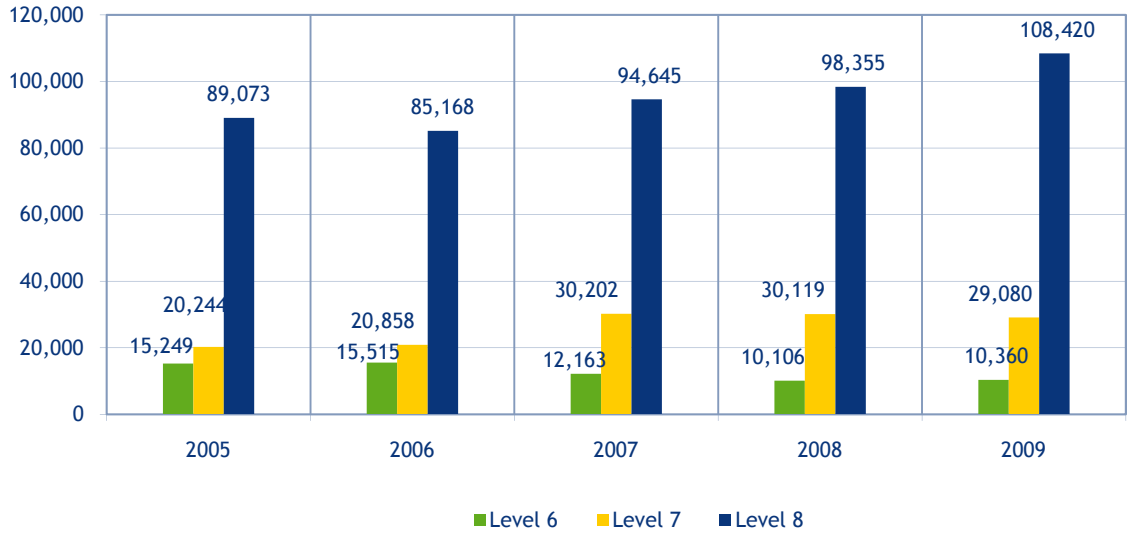
Figure 6.2 shows the total number of undergraduate enrolments by NFQ level over the period 2005-2009. In 2009, there were 147,860 undergraduate students enrolled in Irish higher education, an increase of 19% and 7% on 2005 and 2008 respectively. These increases did not occur evenly across the three NFQ levels:

Level 6: After declining significantly between 2005 and 2008 (a 32% decline), 2009 saw an increase in the number of persons enrolled at level 6 as indicated from the 2009 rise in CAO acceptances at this level. Further increases in CAO acceptances at this level suggest a reversing trend, albeit at a lower level.

Level 7: While enrolments at level 7 increased significantly between 2005 and 2007 (49%), slight declines have been occurring in later years. The sharp increase in CAO acceptances in 2009 at this level should be reflected in future enrolment figures.

Level 8: Enrolments at level 8 experienced the largest increase in numbers, both in relative and absolute terms, year-on-year between 2008 and 2009. Enrolments at this level have been increasing steadily since 2006 although static CAO acceptance numbers in 2010 suggest a levelling-off may occur in the short term.

Figure 6.2 Total Enrolments by level (6-8), 2005-2009



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.

Mode of Study

Level 8 courses had the highest share of full-time enrolments in 2009 at 95%, compared to 53% at level 6. Over a third of all level 6 enrolments were for part-time courses, with 18% at level 7 and 5% at level 8. Level 6 courses also had the highest number of enrolments in distance education/e-learning. For the purposes of this report, breakdowns by provider, gender, age and discipline refer only to full-time and part-time students.

Table 6.3 Enrolments by Mode of Study, Level 6-8, 2009

	Level 6	Level 7	Level 8
Full-time	5,443	23,165	102,823
Part-time	4,060	5,260	5,159
Distance Ed/ E-Learning/ In-Service ed	857	655	438
Total	**10,360**	**29,080**	**108,420**

Source: HEA

Provider Type and Gender

Level 6: Institutes of technology accounted for 86% of enrolments at this level in 2009. Of these, 59% were males.

Level 7: Males also dominate at level 7 accounting for 69% of all enrolments at this level. In the IoTs (93% of all level 7 enrolments), males accounted for almost two thirds 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 6.4 Full-time/ Part-time Enrolments by Provider Type and Gender, Level 6-8, 2009

	Level 6			Level 7			Level 8		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
IoTs	4,801	3,351	8,152	16,423	9,886	26,309	15,196	16,468	31,664
Universities	480	871	1,351	746	1,370	2,116	33,015	43,303	76,318
Total	**5,281**	**4,222**	**9,503**	**17,169**	**11,256**	**28,425**	**48,211**	**59,771**	**107,982**

Source: HEA

Age

The majority of those enrolled in full-time education in the higher education sector are aged 22 or less; ranging from 74% at level 6 to 82% at level 8; on the other hand, the vast majority of part-time students were aged 23 or more (92% at level 6, 94% at level 8).

Table 6.5 Full-time/ Part-time Enrolments by Age, Level 6-8, 2009

	Level 6		Level 7		Level 8	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
17 and under	4%	0%	3%	0%	2%	0%
18	18%	0%	14%	0%	12%	0%
19	25%	1%	21%	1%	21%	1%
20	16%	2%	18%	2%	20%	1%
21	7%	2%	12%	2%	17%	2%
22	4%	3%	7%	3%	10%	2%
23-29	13%	30%	15%	26%	13%	26%
30+	14%	62%	10%	65%	6%	68%
Total	100%	100%	100%	100%	100%	100%

Source: HEA

6.3.2 Enrolments by Discipline

Table 6.6 shows the number of undergraduate enrolments by discipline for NFQ levels 6-8. Level 8 accounted for 74% of all enrolments in 2009, with levels 6 and 7 accounting for 7% and 19% respectively. The 'other' category has the largest share of enrolments (53% of all undergraduate enrolments) followed by technology (29% of the total).

Table 6.6 Enrolments by Discipline and Level, 2009

Discipline	Level 6	% change 08-09	Level 7	% change 08-09	Level 8	% change 08-09
Engineering & manufacturing	1,228	-10%	4,754	12%	5,838	7%
Construction	624	-37%	3,270	-20%	5,312	29%
Computing	836	11%	2,224	-1%	4,315	34%
Science	377	2%	1,501	-4%	11,587	14%
Total Technology	3,065	-12%	11,749	-3%	27,052	18%
Agriculture/Veterinary	287	59%	834	-3%	1,419	18%
Health & Welfare	974	-5%	2,795	-18%	20,524	9%
Total Health, Vet & Agriculture	1,261	5%	3,629	-15%	21,943	10%
Arts & Humanities*	1,064	10%	2,853	-13%	22,776	13%
Education	233	-32%	83	-21%	5,612	0%
Social Sciences, Business & Law	3,356	-2%	6,430	-2%	28,448	4%
Services	524	-35%	3,681	1%	2,151	23%
Total Other	5,177	-7%	13,047	-4%	58,987	8%
Total All	9,503	-7%	28,425	-5%	107,982	10%

Source: HEA

*Includes broad programmes and/or combined studies

Technology

While the number of technology enrolments declined year-on-year at levels 6 and 7 between 2008 and 2009, primarily due to significant declines in construction, level 8 enrolments in this discipline continue to rise. CAO acceptances for construction courses began to decline in 2009 and as such, noticeable declines in enrolments are likely to appear in the short-term.

Health, Veterinary & Agriculture

Over 20,000 students were enrolled on level 8 courses in health and welfare subjects in 2009, an increase of 9% since 2008. Enrolments in health and welfare courses decreased at levels 6 and 7, primarily in the IoTs where the majority of courses at this level are offered. Agriculture and veterinary courses made up a relatively small proportion of enrolments at all levels (between 1% and 3%).

Other Disciplines

Level 8 enrolments in the 'other' subjects increased by 8% between 2008 and 2009, with the largest percentage increase in services subjects (at 23%). Enrolments at both levels 6 and 7 experienced declines in the same time period. 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

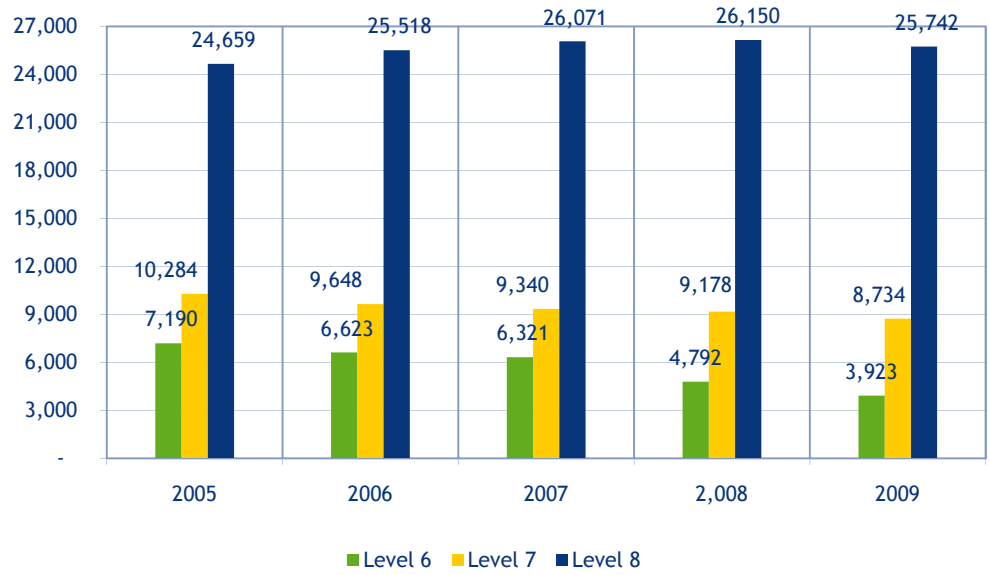
The latest graduation data is for 2009 and this sub-section examines trends for the period 2005-2009. There were over 38,000 graduates at levels 6-8 in 2009. Of these, 67% were at level 8, 23% at level 7 and 10% at level 6. While the overall number of graduates declined by 9% over the period from 2005 to 2009, this was most pronounced at level 6 with output halving over the period. Level 7 graduate numbers also declined, albeit at a smaller rate (15%), while graduate numbers at level 8 increased by 4%.

Level 6: The decline in graduate numbers at level 6 is expected to continue in the short term although increases in CAO acceptances and enrolments suggest a reversal could occur in the medium term.

Level 7: 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), although with enrolment numbers down in 2009, this reversal may be temporary.

Level 8: At this level, graduate output has remained at similar levels over the period 2005-2009. An examination of CAO acceptances and enrolments suggest that the steady growth experienced since 2007 will be reflected in output levels in the coming years.

Figure 6.3 Total Graduate Output by level (6-8), 2005-2009



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 and institution type attended (i.e. IoT vs university).

Provider Type and Gender

Level 6: The IoTs continue to be the main provider of level 6 courses with 70% of all graduates in this sector. While both providers experienced declines in output at this level, universities experienced the greatest percentage decline at 32% over the period 2008 to 2009. Over one half of graduates at this level were male.

Level 7: The overall share by provider and gender has remained relatively unchanged between 2008 and 2009, with the IoTs retaining a 78% share of all graduates at this level. Declines in output occurred for both providers with females experiencing the largest percentage decrease of 6% and 12% for IoTs and universities respectively.

Level 8: In 2009, two thirds of graduate output at this level were from the university sector. The share of graduates across provider and gender remained unchanged since 2008.

Females dominate in the graduate output of both IoTs and universities with a 56% and 61% share respectively. Indeed, female graduates from IoTs were the only group to increase output levels between 2008 and 2009.

Table 6.7 Graduate Output by Provider Type, Gender and level, 2009

	Level 6			Level 7			Level 8		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
IoTs	1,492	1,264	2,756	3,790	3,071	6,861	3,831	4,822	8,653
Universities	529	638	1,167	737	1,136	1,873	6,615	10,474	17,089
Total	2,021	1,902	3,923	4,527	4,207	8,734	10,446	15,296	25,742

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 2008-2009.

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, 2008-2009

	Level 6			Level 7		
Discipline	**2008**	**2009**	**% Change 2008-09**	**2008**	**2009**	**% Change 2008-09**
Engineering & manufacturing	507	399	-21%	797	937	18%
Construction	489	261	-47%	1,249	1096	-12%
Computing	264	175	-34%	416	488	17%
Science	194	132	-32%	496	410	-17%
Total Technology	1,454	**967**	**-33%**	2,958	**2,931**	**-1%**
Agriculture/Veterinary	70	74	6%	288	205	-29%
Health & Welfare	448	461	3%	1,038	959	-8%
Total Health, Vet & Agriculture	518	**535**	**3%**	1326	**1164**	**-12%**
Arts & Humanities*	284	354	25%	1,243	1105	-11%
Education	252	72	-71%	143	53	-63%
Social Sciences, Business & Law	1,236	1,250	1%	2,459	2,576	5%
Services	1,048	745	-29%	1,049	905	-14%
Total Other	2,820	**2,421**	**-14%**	4,894	**4,639**	**-5%**
OVERALL Total	4,792	**3,923**	**-18%**	9,178	**8,734**	**-5%**

Source: HEA

*Also includes studies in general programmes

Technology (Level 6 and 7)

At level 6, all technology subjects experienced significant declines between 2008 and 2009, with output from construction courses almost halving over the period. At level 7, increases in output occurred for engineering and manufacturing courses although this is likely to reverse in the short-term due to the decline in CAO acceptances for these courses in recent years.

Health, Veterinary & Agriculture (Level 6 and 7)

Agriculture and veterinary courses experienced a decline in graduate output at level 7, although the numbers involved are relatively small. At level 7, the number of graduates from health and welfare courses decreased by 8%, while at level 6, small increases occurred for both subjects albeit from a small base.

Other Disciplines (Level 6 and 7)

At level 6, output from education courses reverted back to 2007 figures while services subjects also experienced declines. Despite a significant decline between 2007 and 2008, output from social sciences, business and law courses remained stable between 2008 and 2009.

At level 7, declines occurred across all subjects excluding social sciences, business and law between 2008 and 2009. Declines are expected to continue in the short term, particularly for arts and humanities which have seen significant declines in the number of CAO acceptors in recent years.

Table 6.9 sets out the total number of level 8 graduates by discipline for 2008 and 2009.

Table 6.9 Level 8 Graduate Output by Discipline, 2008 & 2009

Level 8 graduates	2008	2009	% Change
Engineering & Manufacturing	1,482	1,405	-5%
Construction	1,369	1,321	-4%
Computing	868	754	-13%
Science	2,516	2,335	-7%
Total Technology	**6,235**	**5,815**	**-7%**
Agriculture/ Veterinary	267	274	3%
Health & Welfare	4,170	4,618	11%
Total Health, Vet. & Agriculture	**4,437**	**4,892**	**10%**
Arts & Humanities	4,808	4,811	0%
Education	1,574	1,721	9%
Social Sciences, Business & Law	8,523	7,919	-7%
Services	573	584	2%
Total Other	**15,478**	**15,035**	**-3%**
OVERALL TOTAL	**26,150**	**25,742**	**-2%**

Source: HEA

Technology (Level 8)

- Engineering: Despite recent rises in CAO acceptances, output has yet to show signs of recovering to its peak of 1,816 in 2005.
- The decline in graduate output that occurred since 2006 has slowed while the impact of recent rises in CAO acceptances has yet to be realised.
- Construction: This is the first year that a decline has been observed in output from construction courses – the significant decline in CAO acceptances would suggest that this decline is set to continue, and indeed intensify, in the medium term.
- Computing: Graduate output has been in decline in recent years, with a 13% year-on-year decline between 2008 and 2009. The increase in CAO acceptances, particularly since 2008, indicates that a reversal of this trend is likely in the short-term.
- Science: While graduate output experienced an increase between 2007 and 2008, reversing the downward trend of previous years, this increase was temporary. While CAO acceptances have shown signs of recovery, output declined by 7% in 2009.

Healthcare, Veterinary & Agriculture (Level 8)

- Health and welfare: Following a decline in 2008, output increased by 11% in 2009. While output for nursing courses is down, numbers are up for courses related to medicine and diagnostics and therapy and counselling.
- Agriculture/Veterinary: This discipline increased by 3%, although the numbers involved are small.

Other Disciplines (Level 8)

- Arts & Humanities: After a significant drop in output in the period from 2007 to 2008, numbers remained stable in the most recent time period.
- Education: The 9% increase in 2009 returns output to 2007 levels. CAO acceptances have been increasing modestly since 2002 suggesting that output will remain steady in the medium term.
- Social Sciences, Business & Law: This discipline declined by 7% in 2009, the first decline in recent years.
- Services: Outputs remained relatively unchanged over the period from 2008 and 2009.

6.5 International Comparison

In this section we present the findings of an OECD survey of education entitled 'Education at a Glance 2010' 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).

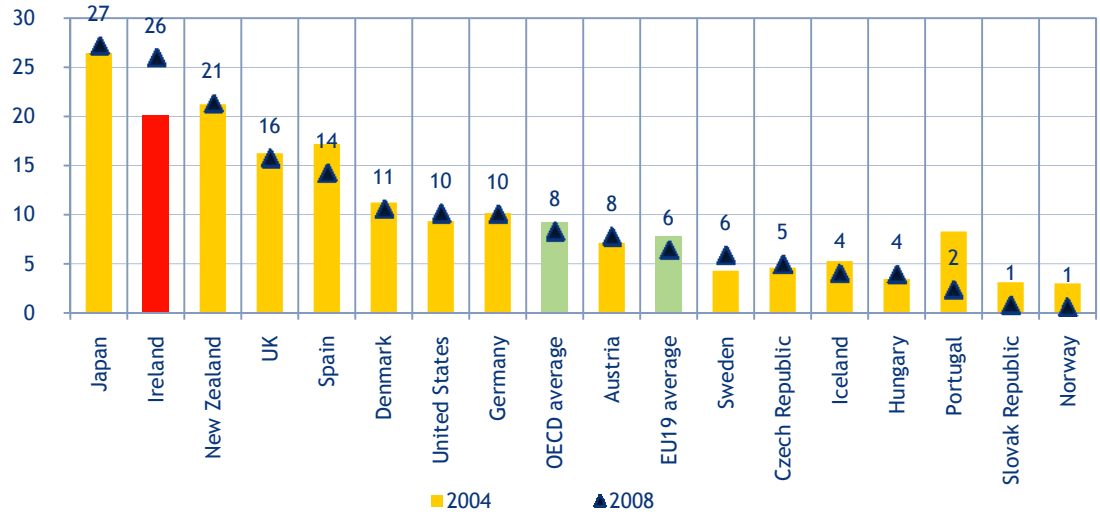
6.5.1 Tertiary Type B

This section compares the graduation rates at Tertiary Type B (equivalent approximately to higher certificate and ordinary bachelor degree level education in Ireland) in selected OECD countries for 2004 and 2008. With 26% of the relevant age cohort graduating from Tertiary Type B courses in

2008, Ireland was ranked second amongst OECD countries with comparable data and well above the EU and OECD averages (6% and 8% respectively).

When compared over time, Ireland's graduation rate was approximately six percentage points greater in 2008 than in 2004. This was the largest relative increase of all countries with Tertiary Type B education.

Figure 6.4 Tertiary Type B Graduation Rates (%), 2004 and 2008



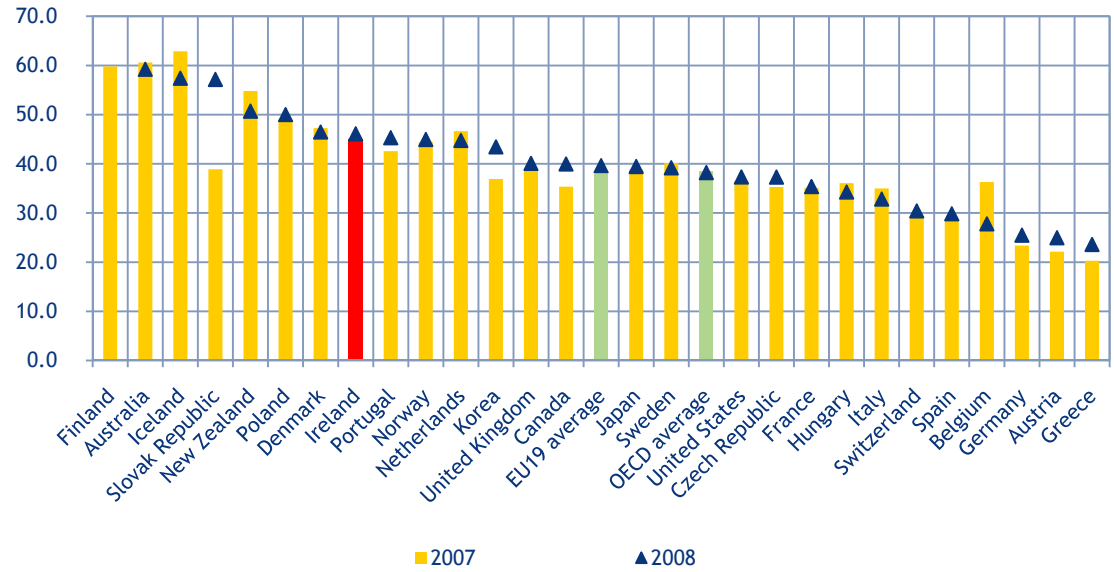
Source: Education at a Glance 2010 (OECD)

Note: not all countries have higher education programmes at this level (e.g. Finland). Tertiary-Type B programmes are a significant feature of the higher education system in only a few countries (e.g. Ireland, Japan and New Zealand).

6.5.2 Tertiary Type A (First Degree)

Tertiary Type A programmes are divided into first degree and second degree programmes. Type A first degree programmes correspond to honours bachelor degree education in Ireland. The data in Figure 6.5 shows that, at 46.1% in 2008, Ireland performed well above the OECD and EU averages (38.2% and 39.6% respectively) in terms of the graduation rates at this level. In addition, Ireland's graduation rate increased slightly from 45% to 46.1% between 2007 and 2008.

Figure 6.5 Tertiary Type A (1st Degree) Graduation Rates in Selected OECD Countries, 2007-2008



Source: Education at a Glance 2010 (OECD)

Note: for Type A First Degrees, Finland's high graduation rate in 2008 is temporary and linked to the ending of certain pre-Bologna study programmes (Source: EAG 2010 Highlights 63).

Chapter 7 Postgraduate Higher Education

Key Points

- **Enrolments** totalled almost 35,000 in 2009, including 8,419 for PhD programmes
- **Graduate output**: there were almost 16,000 graduates in 2009, an increase of almost 24% since 2005; PhD awards increased by 50% to over 1,200 since 2005
- **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 increased by 3% over the period 2008-2009; enrolments increased across all programme types between 2008 and 2009 suggesting future increases in output levels
- **Construction**: the recent fall in the number of enrolments at masters' level resulted in an overall decline of 4% in output between 2008 and 2009. Increases in enrolments in masters and PhD courses should result in an increase in output in the short-term
- **Computing**: declines in output in 2009 should be reversed in the short-term due to an increase in enrolments across all programme types
- **Science**: while the number of postgraduate cert/diploma and masters graduates declined in the period 2008-2009, PhD output continues to increase. This is expected to continue as enrolments in PhD programmes increased by 26% in the same period.

7.1 Introduction

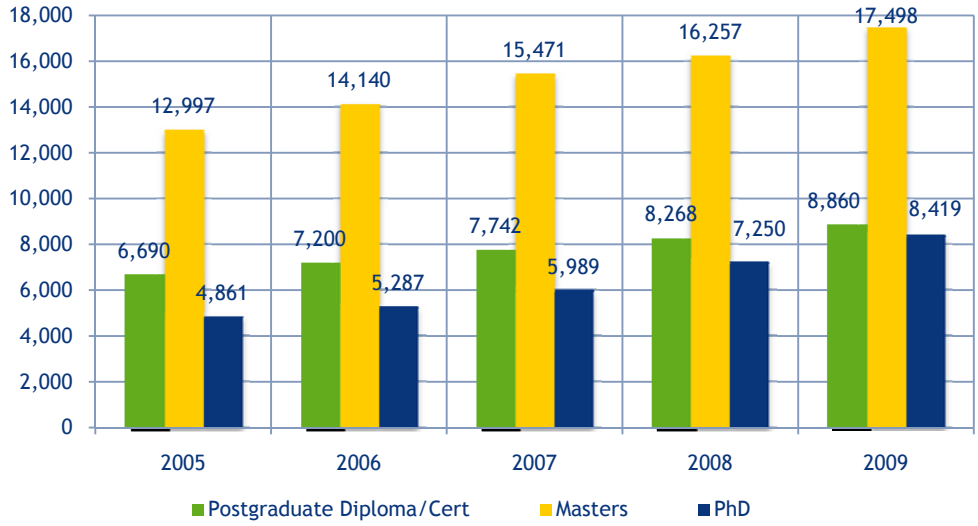
This chapter focuses on the supply of skills emerging from higher education programmes at postgraduate level which span levels 9 and 10 on the National Framework of Qualifications. Master degrees and postgraduate diplomas (first stage of a master degree) are placed at level 9 with doctoral degrees at 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.

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 approximately 35,000 postgraduate students enrolled in Ireland's universities and IoTs in 2009 (Figure 7.1). 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 2008-2009, PhD student enrolments increased by 16%, while masters courses increased by 8% and postgraduate certs/diplomas enrolments saw an increase of 7%.

Figure 7.1 Level 9/10 IoT and University Enrolments, 2005-2009



Source: HEA, DES

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 (Table 7.1). In 2009, postgraduate certs/diplomas and masters had a higher proportion of female students, with 62% and 52% respectively, while PhD students were more likely to be male (51%). While the number of males outnumbered the number of females for each programme type at IoTs, the majority of enrolments at postgraduate level are in universities, at 85%.

Table 7.1 Enrolments by Provider Type and Gender, 2009

	Postgraduate Certs /Diplomas		Masters		PhD	
	Males	Females	Males	Females	Males	Females
IoTs	486	411	2,048	1,754	299	207
Universities	2,866	5,097	6,411	7,285	3,979	3,934
Total	3,352	5,508	8,459	9,039	4,278	4,141

Source: HEA

Full-time/Part-time

Postgraduate certs/diplomas: Increases in enrolments in this programme type in recent years is attributable to an increase in the number of students partaking in part-time study. This was particularly the case between 2008 and 2009 where part-time enrolments increased by a quarter. As a result, the share of part-time enrolments increased from 47% to 55% in this time period (Table 7.2).

Masters: Almost two thirds of those enrolled in masters courses are in full-time education; this share increased by one percentage point between 2008 and 2009.

PhDs: In 2009, 88% of all students enrolled in PhD programmes were studying full-time, a one percentage point increase in the period 2008 to 2009.

Table 7.2 Enrolments by Full-Time and Part-Time Status, 2007-2009

	Postgraduate Certs /Diplomas			Masters			PhD		
	2007	2008	2009	2007	2008	2009	2007	2008	2009
Full-time	54%	53%	45%	61%	61%	62%	87%	87%	88%
Part-time	46%	47%	55%	39%	39%	38%	13%	13%	12%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: HEA

Age

Postgraduate certs/diplomas: The share of students aged 30 and over enrolled in this programme type has increased from 45% to 49% in the period from 2008 to 2009 (Table 7.3).

Masters: This programme type has the largest share of students aged between 17 and 22, at 18% in 2009. This is most likely due to the progression of students directly from their honours bachelor degree course.

PhDs: Over a half of all students enrolled on PhD programmes are aged between 23 and 29.

Table 7.3 Enrolments by Age, 2008-2009

	Postgraduate Certs /Diplomas		Masters		PhDs	
	2008	2009	2008	2009	2008	2009
17-22	10%	9%	16%	18%	4%	4%
23-29	43%	42%	42%	43%	52%	54%
30+	45%	49%	42%	38%	41%	42%
Age Unknown	2%	1%	1%	0%	3%	0%
Total	100%	100%	100%	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 2008 and 2009. In 2009, education had the highest share of postgraduate cert/diploma enrolments at 37%; more than one third of master degree enrolments were in social sciences, business and law, and 26% of all PhD enrolments were for science courses.

Table 7.4 Level 9/10 Enrolments in Higher Education by Discipline, 2008-2009

	Postgraduate Certs/Diplomas		Masters		PhD	
	2008	2009	2008	2009	2008	2009
Engineering & Manufacturing	145	222	1,082	1,328	862	943
Construction	172	130	301	393	115	191
Computing	209	370	1,349	1,490	471	533
Science	218	282	1,083	1,111	1,751	2,210
Total Technology	**744**	**1,004**	**3,815**	**4,322**	**3,199**	**3,877**
Agriculture/ Veterinary	26	30	80	98	184	185
Health & Welfare	2,025	2,031	2,319	2,154	888	1,198
Total Health, Vet. & Agriculture	**2,051**	**2,061**	**2,399**	**2,252**	**1,072**	**1,383**
Arts & Humanities*	384	414	2,650	2,748	1,523	1,461
Education	3,491	3,267	1,069	1,157	319	319
Social Sciences, Business & Law	1,377	1,858	5,909	6,623	1,082	1,300
Services	221	256	415	396	55	79
Total Other	**5,473**	**5,795**	**10,043**	**10,924**	**2,979**	**3,159**
OVERALL TOTAL	**8,268**	**8,860**	**16,257**	**17,498**	**7,250**	**8,419**

Source: HEA

*includes general programmes

Technology

- Engineering and manufacturing: Increases occurred across all programme types at postgraduate level in this discipline between 2008 and 2009.
- Construction: Increases observed in postgraduate cert/diploma enrolments between 2007 and 2008 were reversed in the most recent time period with a 24% decline. However, PhD enrolments showed a continued increase – with figures more than doubling since 2007. Increases also occurred at masters level.
- Computing: Increases in enrolments occurred across all programme types; this was particularly pronounced for postgraduate certs/diploma enrolments.
- Science: This discipline has the largest share of enrolments on PhD programmes which have continued to increase year-on-year (26% between 2008 and 2009). Postgraduate certs/diploma courses also saw an increase in the number of enrolments, while increases at masters level were minor.

Health, Agriculture and Veterinary

- Agriculture & Vet: Although increases occurred across all programme types the numbers involved are small.
- Health & Welfare: Declines in enrolments at masters level resulted in a return to 2007 figures. In contrast, PhD enrolments continue to increase with an increase of 35% between 2008 and 2009; medicine and diagnostics accounted for almost two thirds of this increase. There was no change in postgraduate cert/diplomas enrolments.

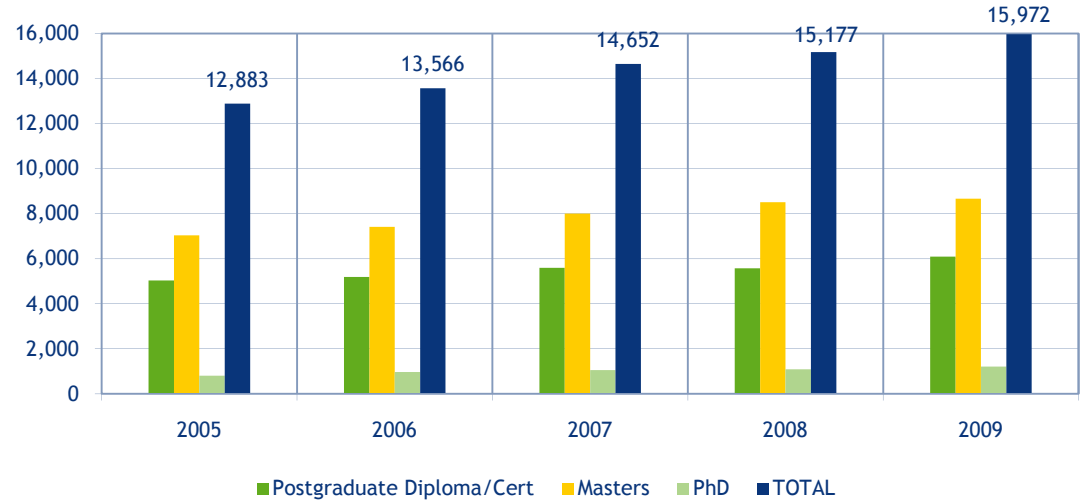
Other Disciplines

- Humanities & Arts: While enrolments in postgraduate certs/diplomas and masters increased modestly, enrolments at PhD level declined by 4%.
- Education: The increases experienced in this discipline at postgraduate cert/diploma level in recent years reversed somewhat in 2009 with a decline of 6% since 2008. This discipline remains the largest group at postgraduate cert/diploma level. Masters programmes experienced an increase in enrolments of 8% while PhD levels remained unchanged.
- Social science, business & law: This discipline accounts for over a third of all enrolments on courses at masters level. All programme types saw enrolment levels rising, with the largest percentage increase was for postgraduate cert/diplomas at 35%.
- Services: Increases occurred for postgraduate cert/diplomas and PhDs although the numbers involved are small.

7.3 Level 9/10 Graduates

As shown in Figure 7.2, a total of 15,972 students graduated with a postgraduate qualification in 2009; of these, 38% were postgraduate certs/diplomas, 54% were masters and 8% for PhD programmes. Postgraduate output has been continually increasing in recent years, with a 24% increase over the period 2005 to 2009; the number of PhDs awarded over this period increased by 50%.

Figure 7.2 Level 9/10 Graduate Output by Award Type, 2005-2009



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).

Provider Type & Gender

Overall, universities had the highest number of graduates at postgraduate level and females accounted for 60% of all graduates at postgraduate level. The distribution of awards by provider type and gender in 2009 is detailed in Table 7.5. When compared to 2008 data, the findings are as follows:

- Postgraduate certs/diplomas: The number of both male and female graduates from IoTs has declined while university graduate numbers are up, particularly for females.
- Masters: The number of graduates in the IoTs increased for both genders, while universities experienced no change to their overall figures (the number of male graduates increased slightly while female graduate output declined)
- PhDs: While the number of male graduates in universities increased by almost a quarter, all other categories remained at levels similar to 2008.

Table 7.5 Graduates by Provider Type and Gender, 2009

	Postgraduate Certs/Diplomas		Masters		PhD	
	Males	Females	Males	Females	Males	Females
IoTs	243	300	682	726	32	29
Universities	1,640	3,912	3,154	4,105	626	523
Total	1,883	4,212	3,836	4,831	658	552

Source: HEA

7.3.2 Level 9/10 Graduates by Discipline

Table 7.6 compares the distribution of level 9/10 graduates by discipline for 2008 and 2009.

Table 7.6 Level 9/10 Graduations by Discipline, 2008-2009

	2008				2009				
Level 9/10 graduates	PG Cert/ Dip	Masters	PhDs	Total	PG Cert/Dip	Masters	PhDs	Total	% Change 08-09
Engineering & Manufacturing	93	340	124	**557**	88	321	167	**576**	3%
Construction	85	182	22	**289**	98	157	21	**276**	-4%
Computing	164	612	79	**855**	156	557	88	**801**	-6%
Science	202	409	362	**973**	160	362	385	**907**	-7%
Total Technology	**544**	**1,543**	**587**	**2,674**	**502**	**1,397**	**661**	**2,560**	**-4%**
Agriculture/ Vet	0	40	30	**70**	19	23	23	**65**	-7%
Health & Welfare	1,395	1,077	115	**2,587**	1,413	1,092	129	**2,634**	2%
Total Health, Vet. & Agriculture	**1,395**	**1,117**	**145**	**2,657**	**1,432**	**1,115**	**152**	**2,699**	**2%**
Arts & Humanities*	221	1,488	163	**1872**	237	1,584	194	**2,015**	8%
Social Sciences, Business & Law	1,180	3,647	161	**4988**	1,182	3,894	163	**5,239**	5%
Education	2,093	512	22	**2627**	2,587	462	30	**3,079**	17%
Services	143	202	14	**359**	155	215	10	**380**	6%
Total Other	**3,637**	**5,849**	**360**	**9,846**	**4,161**	**6,155**	**397**	**10,713**	**9%**
OVERALL TOTAL	**5,576**	**8,509**	**1,092**	**15,177**	**6,095**	**8,667**	**1,210**	**15,972**	**5%**

Source: HEA

*includes general and combined studies

Technology

- Engineering & manufacturing: The overall number of level 9/10 graduates in this discipline increased by 3% year-on-year between 2008 and 2009, due to increases at PhD level. The rise in enrolment levels across all programme types suggests that output will continue to increase.
- Construction: After increasing in recent years, this discipline experienced a decline of 4% between 2008 and 2009 occurring primarily at masters level. This may be temporary, however, with enrolments increasing in 2009.
- Computing: Declines in the number of postgraduate cert/diploma and masters graduates resulted in an overall decline of 6% in this discipline although the number of PhD graduates increased slightly. These declines should reverse in the short-term due to increases in enrolments across all programme types.
- Science: The number of PhD graduates continues to increases and it remains the discipline with the highest number of PhDs. Increases are expected to continue with a 26% increase in enrolments between 2008 and 2009. However, a drop in the number of postgraduate cert/diploma and masters graduates resulted in an overall decline of 7%.

Health, Vet and Agriculture

- Agriculture & Vet: The number of graduates declined in this discipline, although the numbers involved are small.
- Health & Welfare: Small increases in the number of graduates occurred across all programme types. Increases in PhD enrolments should lead to future rises in output for this programme type.

Other Disciplines

- Arts & Humanities: The overall graduate output decline in 2008 was reversed in 2009, primarily due to increases at masters level.
- Social science, business & law: This discipline accounted for a third of all postgraduate graduates in 2009. Output continues to increase (by 5% in 2009) due to a growth in the number of masters graduates and is expected to continue with rising enrolment numbers.
- Education: Output in this discipline increased by 17% between 2008 and 2009, due to significant gains at postgraduate cert/diploma level. Those graduating from teacher training with subject specialisation accounted for the largest group in this category. The number of masters graduates declined slightly.
- Services: This discipline increased by 6%, albeit from a small base.

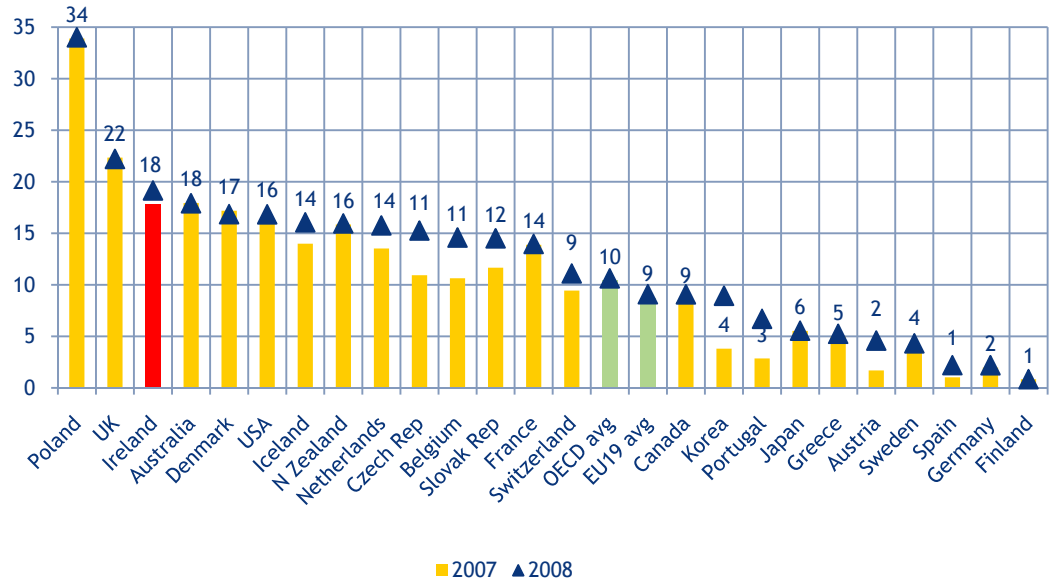
7.4 International Comparison

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 2010). 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.

7.4.1 Tertiary Type A (Second Degree)

Tertiary Type A (second degree) programmes corresponds to master degrees in Ireland. Graduation data for Tertiary Type A (second degree) programmes is available from 2007 only. Figure 7.3 compares Ireland's performance in terms of graduation rates at master degree level with that of selected OECD countries. At approximately 18% in both 2007 and 2008, Ireland's graduation rates were twice that of the EU 19 average (8.7% in 2007; 9.1% in 2008). Ireland also exceeded the OECD averages each year.

Figure 7.3 Tertiary Type A (2nd Degree) Graduation Rates in Selected OECD Countries 2007-2008



Source: Education at a Glance 2010 (OECD)

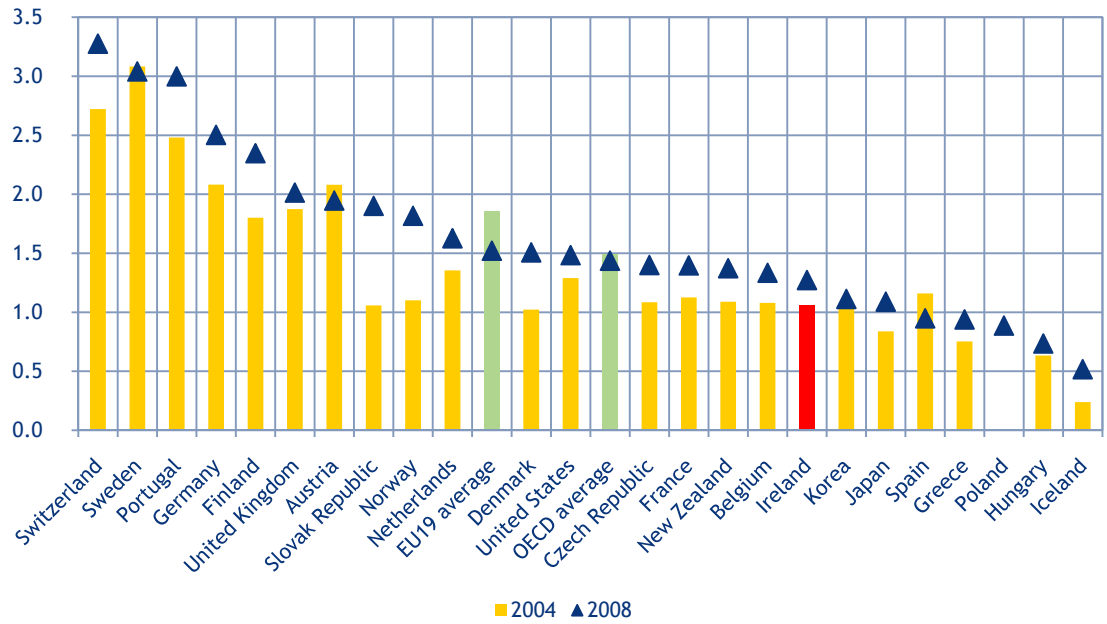
7.4.2 Advanced Research Degree

This section examines how Ireland compares internationally in terms of the number of PhD graduates to the population (i.e. graduation rate)

In terms of the number of advanced research degree graduates in 2008, Ireland lags behind the OECD and EU19 averages: the graduation rate at this level is 1.3% for Ireland compared to 1.4% and 1.5% for the OECD and EU19 averages respectively. Ireland also lags considerably behind the leading countries, Switzerland, Sweden and Portugal whose advanced research degree graduation rates (of at least 3%) are more than double that of Ireland. However, the rate for Ireland was closer to the EU19 and OECD averages in 2008 than in 2004, due mostly to a slight rise in Ireland's rate and declines in those for EU19 and OECD averages.

Although Ireland's graduation rates for students with advanced research degree qualifications (Figure 7.4) is comparatively low, the rate has increased slightly over the five year period, 2004-2008, going from 1.1% to 1.3%. In contrast the OECD and EU average rates at this level declined over the same period.

Figure 7.4 Advanced Research Degree Graduation Rates, 2004 & 2008



Source: Education at a Glance 2010 (OECD)

Chapter 8 Where Do Graduates Go?

Key Points

- Level 9/10 had the highest proportion of graduates in employment in Ireland and overseas nine months after graduation (62% compared to 48% for level 8), whereas level 8 graduates were more likely to go on to further study (37% compared to 17%)
- The proportion of graduates seeking employment has increased significantly in recent years due to the downturn in the Irish economy
- Veterinary medicine, medicine, dentistry and paramedical studies and education had the highest proportion of level 8 graduates in employment nine months after graduation
- In quarter 4 2010, 85% of all level 8-10 graduates aged 25-34 were at work, as compared to a rate of 69% for the total in this age cohort at work; their unemployment rate was 7% compared to an overall rate of 15%
- Those who studied education were the most likely to be at work in quarter 4 2010; graduates from the services and engineering disciplines had the highest rate of unemployment
- Eighty two per cent of those with education 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
- Graduates are significantly more likely than non-graduates to work in professional and associate professional occupations.

8.1 Introduction

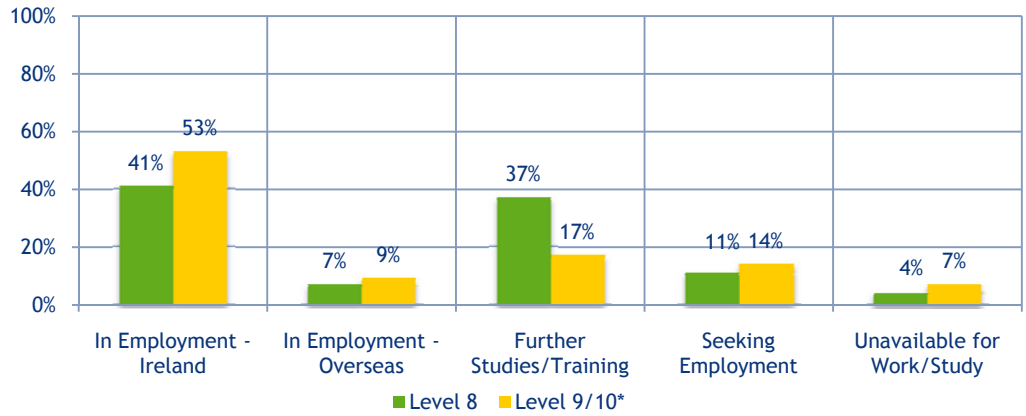
This chapter focuses on where graduates go after attaining a higher level qualification. We begin with a summary of the findings of the First Destination Survey (FDS) report which is produced annually by the HEA and surveys Irish graduates nine months after graduation. Based on the Central Statistics 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 the HEA's latest data on the first destination of graduates and on previous editions of their reports entitled 'What Do Graduates Do?' The data is a collation of the findings from a survey of graduates nine months after graduation and examines if they have gained employment, are in further study, or are seeking employment. Information on level 6/7 graduates in unavailable for the previous two years and is therefore excluded from the analysis here.

Figure 8.1 shows the first destination of the 2009 graduates at levels 8-10 on the NFQ. Level 9/10 had the highest proportion of persons in employment in Ireland and overseas, whereas level 8 had a greater proportion of graduates going on to further study.

Figure 8.1 First Destination of Level 8-10 Higher Education Graduates, 2009



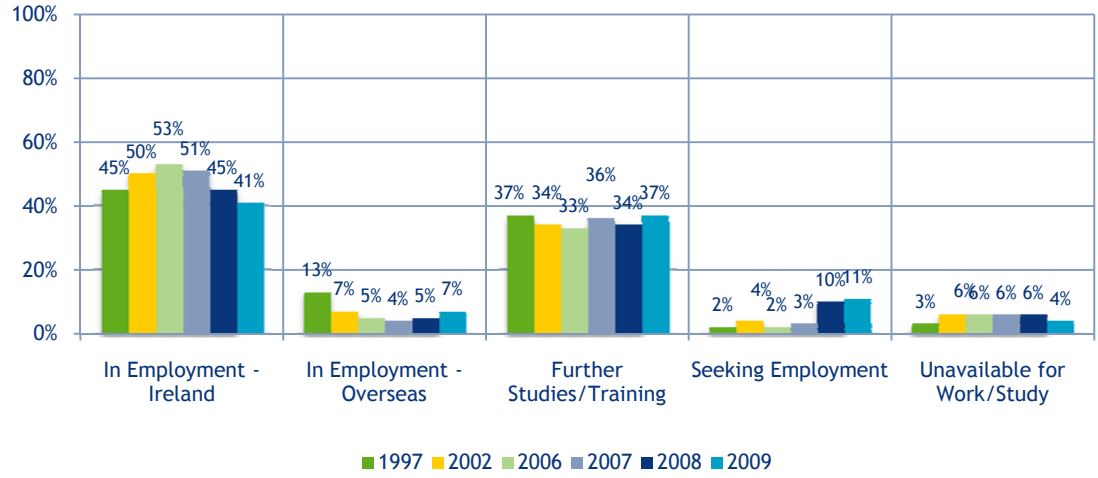
Source: HEA

*Level 9/10 includes Masters and PhDs only

8.2.1 First Destination by NFQ Level

The proportion of level 8 graduates in employment in Ireland peaked in 2006 at 53%. Since 2007, as a result of Ireland's economic downturn, this proportion has dropped to 41% while the number of level 8 graduates gaining employment overseas has returned to 2002 levels. 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 seeking unemployment increased significantly in 2008 and 2009.

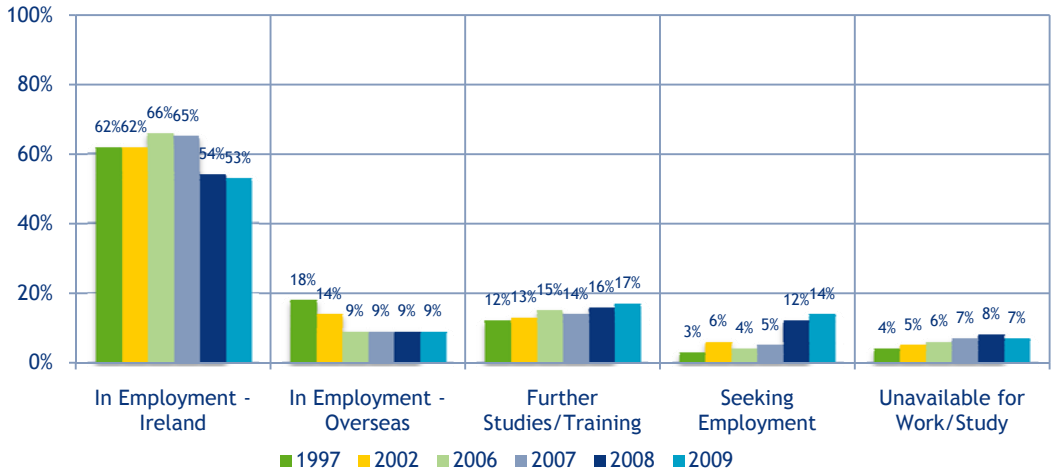
Figure 8.2 First Destination of Level 8 Graduates, 1997-2009



Source: HEA

In 2009, 53% of all graduates from level 9/10 courses were in employment in Ireland, a drop of 13% since the peak in 2006 (Figure 8.3), while the numbers in employment overseas have remained constant at 9% in recent years. Small increases in the share of graduates continuing on to further studies occurred since 2007 while those seeking employment jumped to 14% in 2009 from a low of 3% in 1997.

Figure 8.3 First Destination of Level 9 Masters and Level 10 PhD Graduates, 1997-2009

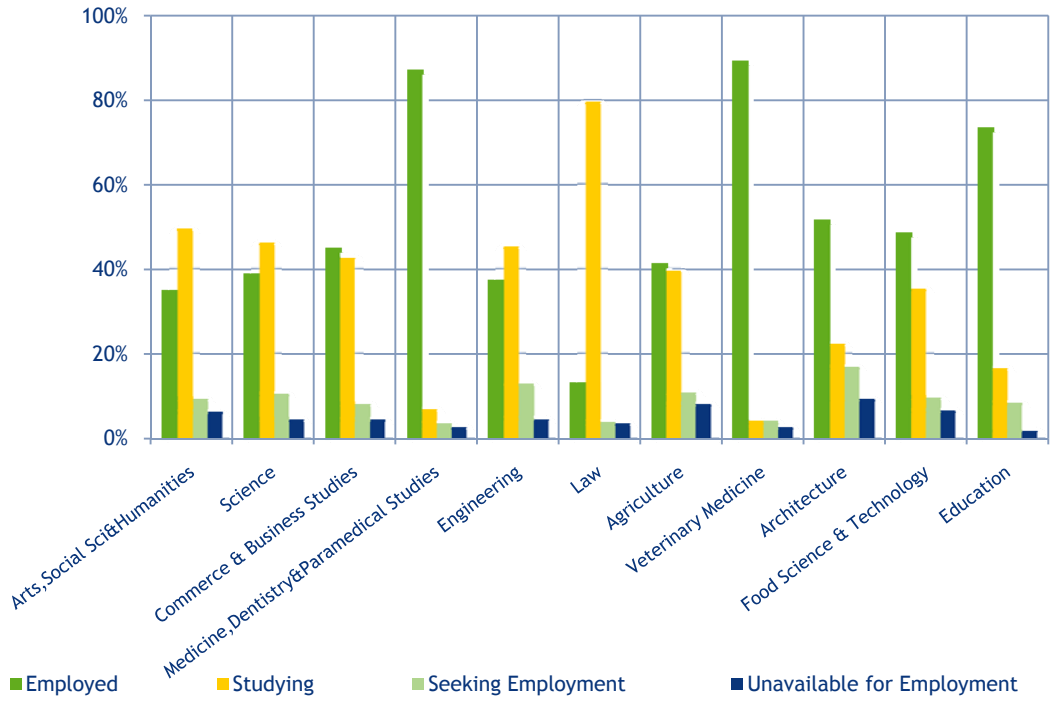


Source: HEA

8.2.2 Destination by Faculty

Figure 8.4 details the first destination of level 8 graduates by faculty. Over 70% of those from veterinary medicine, medicine, dentistry and paramedical studies and education faculties were in employment nine months after graduation. While those graduating from law had the lowest proportion of persons in employment, they had the highest proportion of graduates going on to further studies at 80%. Of those that graduated with a level 8 architectural qualification, 17% were seeking employment nine months after graduation (the highest rate amongst all faculties).

Figure 8.4 First Destination of Level 8 Honours Bachelor Degree Graduates by Faculty, 2009



Source: HEA

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. Quarter 1 2008 is used as the baseline for comparison while quarter 4 2010 is the latest data available.

8.3.1 Graduates in the Population

A total of 765,300 persons in the population in Ireland were aged between 25 and 34 in quarter 4 2010 (see Table 8.1 below). Of these, almost 218,000, or 28%, had attained a third level degree or above (corresponding to NFQ levels 8-10). A further 130,500, or 17%, 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 8-10 qualifications. For the purposes of this report this level of attainment will be henceforth referred to as level 8+.

Table 8.1 Population Aged 25-34 by Education Attainment, Q4 2010

Education Attainment	Total	%
Third level degree or above (NFQ Level 8+)	217,800	28%
Third level non-degree (NFQ Level 6/7)	130,500	17%
Leaving Cert and FET(NFQ Level 4/5)	289,200	38%
Lower Secondary or less (NFQ Level 3 or less)	92,000	12%
Other/Not stated	35,900	5%
Total	**765,300**	**100%**

Source: SLMRU analysis of CSO data (QNHS)

8.3.2 Economic Status of Graduates

Table 8.2 focuses on the economic status of 25-34 year olds by education attainment. Of the 217,800 level 8+ graduates in quarter 4 2010, 85% were at work; 7% were unemployed, 5% were students with the remaining 3% in the 'other' category (including those engaged in home duties) (Table 8.2).

While the overall proportion of those aged 25-34 at work dropped by 10 percentage points (from 79% to 69%) between quarter 1 2008 and quarter 4 2010, the share of those with level 8+ qualifications experienced a drop of just two percentage points (down from 87%). Furthermore, at 7%, the unemployment rate among 25-34 year-olds with level 8+ qualifications was considerably lower than that of persons with lower secondary education attainment (31% in quarter 4 2010).

In absolute terms, the total number of graduates at work declined by 8% between quarter 1 2008 and quarter 4 2010, down from over 200,000 to 185,000.

Table 8.2 Those aged 25-34 by Education Attainment and Principal Economic Status (PES), Q1 2008 and Q4 2010

	Q1 2008					Q4 2010				
	At Work	Unemployed	Student	Other	Total	At Work	Unemployed	Student	Other	Total
Third level degree or above	87%	3%	5%	5%	100%	85%	7%	5%	3%	100%
Third level non-degree	87%	3%	2%	8%	100%	77%	10%	4%	9%	100%
Leaving Cert and FET	79%	5%	5%	11%	100%	65%	18%	5%	13%	100%
Lower Secondary or less	58%	13%	2%	27%	100%	37%	31%	2%	30%	100%
Other/Not stated	79%	4%	3%	15%	100%	62%	14%	4%	21%	100%
Total	**79%**	**5%**	**4%**	**11%**	**100%**	**69%**	**15%**	**4%**	**12%**	**100%**

Source: SLMRU analysis of CSO data (QNHS)

When gender is examined, in quarter 1 2008 males had a higher proportion of level 8+ graduates at work than females at 90% and 85% respectively, while in quarter 4 2010 86% of female level 8+ graduates were at work compared to 83% of males. While male graduates had an unemployment rate of 10%, it was 6% for females.

8.3.3 Economic Status of Graduates by Field of Learning

Table 8.3 compares the economic status of those with level 8+ qualifications by field of education between quarter 1 2008 and quarter 4 2010. 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% in the fourth quarter of 2010. While 90% of engineering graduates were at work in quarter 1 2008, this dropped to 81% in quarter 4 2010. Graduates in science, mathematics and computing had a lower share of people at work but a larger share undertaking further studies, categorised in Table 8.4 under the 'Other' column. At 11%, services and engineering, manufacturing and construction had the highest proportion of unemployed persons in quarter 4 2010, as compared with 1% and 3% respectively in quarter 1 2008.

Table 8.3 Education Field of those Aged 25-34 with Level 8+ Qualifications by PES, Q1 2008 and Q4 2010

	Q1 2008				Q4 2010			
Education Fields	At work	Unem ployed	Other	Total	At work	Unem ployed	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%	9%	12%	100%
Engineering, Manuf. & Const.	90%	3%	7%	100%	81%	11%	9%	100%
Agriculture and Veterinary	84%	8%	8%	100%	86%	10%	5%	100%
Health and Welfare	89%	2%	9%	100%	91%	3%	6%	100%
Services	87%	1%	13%	100%	78%	11%	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 classified as in employment. Over a third of all employed graduates held a qualification in social sciences, business and law amounting to 69,600 in quarter 4 2010 (Table 8.4). Females outnumbered males in all categories except science and engineering.

Those in employment with education qualifications were the only category to increase in numbers over the period quarter 1 2008-quarter 4 2010. The number of engineering, manufacturing or construction graduates in employment declined by 6,500– the largest decline over the period; most of this decline was for males. For females, the greatest decline in employment numbers occurred for those with social science qualifications.

Table 8.4 Those in Employment Aged 25-34 with Level 8+ Qualifications by Field of Learning, Q1 2008 and Q4 2010

	Q1 2008			Q4 2010		
Education Fields	Total Male	Total Female	Total	Total Male	Total Female	Total
Education	3,500	12,600	16,100	4,200	13,800	18,000
Humanities & Arts	7,200	13,400	20,600	5,900	11,400	17,300
Social sciences, Business & Law	29,400	42,300	71,700	31,700	37,900	69,600
Science, Mathematics &Computing	12,000	9,200	21,200	10,800	7,800	18,700
Engineering, Manufacturing &Constr.	23,000	6,200	29,200	16,500	5,400	22,000
Agriculture & Veterinary	2,500	1,300	3,800	1,800	1,900	3,800
Health & Welfare	2,900	17,800	20,700	4,600	14,800	19,300
Services	3,000	4,800	7,800	2,000	3,000	5,000
Other	4,300	5,100	9,400	4,000	5,100	9,100
Total	87,800	112,600	200,400	81,600	101,200	182,800

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 qualification[24]. 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 8.5 examines the destination of those in employment by education field and occupation field. Eighty two per cent of those with education qualifications worked in a similar field. In contrast, only 11% of those who had gained level 8+ qualifications in humanities and arts were employed in this field; 47% were employed in areas relating to social sciences, business and law and a further 18% were employed in education-related occupations.

This distribution is broadly in line with that reported in the previous edition of this report (2010: p 99) which reported on quarter 4, 2009. However, graduates working in fields related to their qualifications were less likely than they were one year previously to work in this field for all disciplines excluding education, humanities and social sciences.

[24] 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 B details the occupations included within each occupational field. It should be borne in mind that the analysis is approximate and intended as an indicator of skills matching.

Although a detailed breakdown by occupation was not available for quarter 4 2010, an examination of the data in quarter 4 2009 (detailed in the previous edition of this report) indicated that 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. Most social science, business and law graduates worked in a related field with approximately one third of these working as chartered accountants or financial managers.

Table 8.5 Occupation Field of Those Aged 25-34 in Employment by Field of Learning, Q4 2010

	Education Fields							
Occupation Fields	Education	Humanities & Arts	Social sciences, Business & Law	Science, Maths & Computing	Engineering, Manufacturing & Construction	Agriculture & Veterinary	Health & Welfare	Services
Education	82%	18%	5%	10%	6%	13%	1%	2%
Humanities & Arts	1%	11%	1%	0%	2%	0%	0%	0%
Social sciences, Business & Law	6%	47%	74%	16%	15%	21%	5%	30%
Science, Mathematics & Computing	3%	4%	3%	52%	16%	13%	8%	14%
Engineering, Manufacturing & Construction	2%	6%	6%	10%	51%	8%	2%	4%
Agriculture & Veterinary	0%	1%	0%	1%	0%	21%	0%	0%
Health & Welfare	3%	5%	4%	4%	1%	8%	81%	10%
Services	3%	9%	7%	6%	6%	11%	2%	38%
Other	0%	0%	0%	2%	1%	3%	2%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: CSO

In quarter 4 2010, there were approximately 528,800 25-34 year-olds at work, with 185,000 of these holding level 8+ qualifications. As detailed in Table 8.6, 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 two percentage points from 70% to 72%. This compares to 21% for those aged 25-34 with less than level 8+ qualifications at the end of 2010. 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 8.6 Occupational Breakdown of Those at Work Aged 25-34 by Education Level, Q1 2008 & Q4 2010

	Q1 2008		Q4 2010	
	Level 8+ Grads	All others at work	Level 8+ Grads	All others at work
Managers & Administrators	15%	11%	14%	11%
Professional Occupations	35%	3%	40%	3%
Associate Professional & Technical Occupations	20%	7%	18%	7%
Clerical & Secretarial Occupations	10%	14%	10%	16%
Craft & Related Occupations	4%	19%	2%	13%
Personal & Protective Service Occupations	5%	14%	6%	18%
Sales Occupations	6%	11%	6%	12%
Plant & Machine Operatives	2%	11%	2%	10%
Other Occupations	3%	12%	2%	10%
Total	100%	100%	100%	100%

Source: SLMRU analysis of CSO data (QNHS)

8.3.6 Sectoral Employment of Graduates

Table 8.7 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 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. For all others at work, the greater share was employed in industry and wholesale activities.

When compared to quarter 1 2008, the distribution of level 8+ graduates in employment by sector has shifted slightly (from IT and financial sectors to health and education sectors).

Table 8.7 Sectoral Employment of those aged 25-34 with level 8+ Qualifications, Q1 2008 & Q4 2010

	Q1 2008		Q4 2010	
Sector	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%	8%
Wholesale & retail trade; repair of motor vehicles & motorcycles	7%	18%	8%	19%
Transportation & storage	1%	4%	2%	6%
Accommodation & food service activities	4%	8%	3%	8%
Information & communication	9%	2%	7%	3%
Financial, insurance & real estate activities	11%	5%	10%	6%
Professional, scientific & technical activities	14%	3%	12%	3%
Administrative & support service activities	3%	5%	1%	4%
Public administration & defence; compulsory social security	4%	4%	5%	7%
Education	14%	2%	19%	3%
Human health & social work activities	13%	7%	15%	9%
Other NACE activities	4%	5%	4%	6%
Total	100%	100%	100%	100%

Source: SLMRU analysis of CSO data (QNHS)

Chapter 9 Private Education and Training Provision

Key Points

- There were over 3,600 HETAC awards (including joint awards) made in the higher private education and training sector in 2009
- More than one half of these awards were made at level 8; the awards were mostly in the fields of arts/humanities and business
- Over 5,000 awards were made by professional institutes in 2010, almost all in the broad area of business and finance; of these more than 2,000 awards were broadly comparable to post-graduate level education

9.1 Introduction

Education and training in Ireland also takes place outside the public education and training system. Private schools, colleges and other bodies provide various types of education and training within the FET sector, the higher education sector and professional level training.

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 examined[25]. The second section provides an overview of the qualifications gained by those pursuing education and training at some of the professional institutes in Ireland[26]. Courses offered by private providers which lead to FETAC awards are not included in this section as they are present in the awards data outlined in Chapter 5 of this report.

[25] Appendix C details these higher education institutions.
[26] Appendix C details these professional institutes.

9.2 Private/Independent Higher Education Graduates

Private independent colleges (e.g. Dublin Business School, Griffith College) offer programmes that are accredited by HETAC, foreign universities (usually UK), or sometimes, jointly by HETAC and another awarding body. The data outlined in Table 9.1 refers to HETAC or joint HETAC awards made at a range of private colleges in 2009. Appendix C provides a list of the colleges whose awards are included.

There were over 3,600 awards made in the higher private education and training sector in 2009. Almost one half of the awards were made for arts courses, the majority of which were at NFQ level 8; business had the second highest share of awards, at 44% (1,596), while the remaining 7% of awards were in science and engineering, mostly at levels 8 and 9. Over one half (58%) of the awards were made to females.

Table 9.1 HETAC Awards (including joint awards) for Selected Private Colleges, 2009

Field of Learning	NFQ 6	NFQ 7	NFQ 8	NFQ 9/10	Total
Arts	177	430	1,083	79	1,769
Business	150	188	928	330	1,596
Science & Engineering	11	31	89	133	264
Total	**338**	**649**	**2,100**	**542**	**3,629**

Source: HETAC

9.3 Professional Institutes

Many awards made by several professional institutes are aligned with the National Framework of Qualifications (e.g. IMI, ACCA). However, as this is not the case for all awards considered here, we present the data in three categories: undergraduate (including sub-degree and degree qualifications); postgraduate (where an undergraduate qualification or equivalent is required prior to enrolment) and 'other', which includes shorter courses including those that lead to specific purpose and minor awards and which are aligned with the National Framework of Qualifications.

Over 5,300 awards were made to students taking courses through various professional bodies in 2010 (Table 9.2). The awards were made entirely within the broad field of business and include accountants, tax experts and other financial professionals. The awards made in 2010 (2009 for accountancy awards), had an almost equal share of undergraduate and postgraduate awards (38% of the total each); a further one quarter of the awards were in the other category and were chiefly for short courses (e.g. several days).

Table 9.2 Professional Institutes Awards 2010* (accounting awards are for 2009)

Course Level	Awards
Undergraduate	2,046
Postgraduate	2,045
Other	1,271
Total	**5,362**

Source: HETAC, Institute of Bankers, Irish Tax Institute, Institute of Bankers, IMI, IAASA (Irish Auditing and Accounting Supervisory Authority)

Chapter 10 Irish Students Abroad

Key Points

- In 2008, there were over 17,000 Irish-domiciled students enrolled in higher education programmes in other OECD countries, almost 90% of whom were enrolled in courses in the UK
- Three quarters of these students were enrolled in Tertiary Type A programmes with a further 6% enrolled in advanced research degree programmes (e.g. doctoral degree programmes)
- Enrolments declined by 5%, or almost 900 students, between 2007 and 2008
- The number of Irish domiciled students who accepted a place for higher education studies in the UK increased to almost 3,000 in 2010, a 6% rise on 2009
- Approximately 800 Irish-domiciled acceptors in the UK were for technology related courses, almost 1,200 were for health, vet and agriculture courses, and just over 1,000 were for 'other' courses
- Almost 5,900 Irish students obtained a third level qualification in the UK in 2010, a 4% increase on 2009; almost one quarter (1,430) of Irish graduates were in the fields of health, veterinary and agriculture with almost a further fifth were in social science, business and law
- In 2008/2009, the number of outgoing ERSAMUS students from Ireland reached their highest number to date (1,836)

10.1 Introduction

This chapter provides an overview of the Irish domiciled students 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 country[27]. 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 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

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

(UCAS)[28]. 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.

10.2 Irish Students in Other OECD Countries

The OECD Education online 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 with education levels comparable to Irish higher level corresponding to the ISCED categories of: 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 over 17,000 Irish students enrolled in higher education programmes in other OECD countries, 97% of which went to English-speaking countries. The UK had the highest number with a total of 15,261 (approximately 89% of the total). The United States had the second highest number of Irish students at over 1,000.

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 6% were in advanced research degree programmes (e.g. doctoral programmes).

The number of Irish domiciled students abroad declined between 2007 and 2008 (by 5%, or 870 students). The number of Tertiary type A enrolments declined by 6% while the numbers undertaking advanced research degrees fell by almost a fifth (18%). On the other hand, the number of Tertiary type B student enrolments rose by 6%, reaching 2,280 in 2008. The declines are mostly due to 900 fewer students enrolled in Tertiary type A programmes in the UK; the number of enrolments in Germany, Australia and Canada all increased.

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

Table 10.1 Irish Students' Enrolments in OECD Countries*, 2008

Country	Tertiary A	Tertiary B	Advanced Research	Unspecified	Total
United Kingdom	12,035	2,261	965	-	15,261
United States	-	-	-	1,019	1,019
Germany	285	-	-	-	285
Australia	174	-	19	-	193
Canada	96	7	21	-	124
Spain	69	-	4	-	73
New Zealand	15	12	13	-	40
Others**	98	-	28	-	126
Total	**12,772**	**2,280**	**1,050**	**1,019**	**17,121**

Source: OECD online database

*Excluding Ireland
**Others include: the Netherlands, Sweden, Denmark, Switzerland, Portugal, the Slovak Republic and Iceland

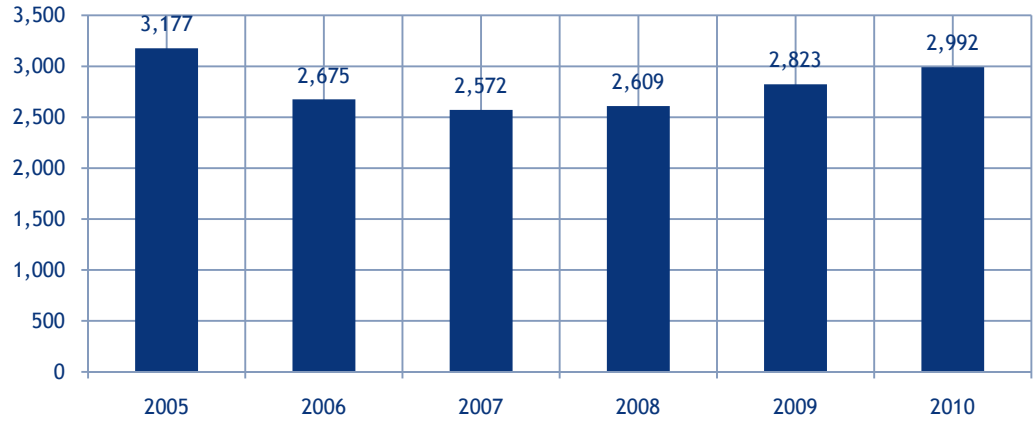
10.3 Irish Domiciled Students in the UK

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

Figure 10.1 shows that the number of Irish domiciled students who accepted a place for higher education studies in the UK increased to almost 3,000 in 2010, a 6% rise on 2009; despite increases in both 2008 and 2009, the number of acceptances remained slightly below the 2005 level of almost 3,200.

Figure 10.1 Republic of Ireland Domiciled UCAS Acceptors, 2005-2010



Source: UCAS

Table 10.2 shows the distribution of UCAS acceptors in 2008-2010 by discipline. Of the 2,992 Irish domiciled acceptors in 2010, approximately 800 were for technology related courses, almost 1,200 were for health, vet and agriculture courses, and just over 1,000 were on 'other' courses (including social science, business & law and arts & humanities).

Between 2009 and 2010, the share of acceptances for technology courses declined across all course types; acceptances for medicine/dentistry and subjects allied to medicine (e.g. nursing, physiotherapy) increased by 48% and 23% respectively, although the numbers for medicine/dentistry were comparatively small; the increase in the number of acceptors for subjects allied to medicine accounted for a large share of the increase in total Irish domiciled UCAS acceptors between 2009 and 2010, with an additional 183 acceptors. More modest increases were observed for arts and humanities (+8%), education (+14%) and social science, business and law (+15%).

In 2010, 42% of the UCAS acceptors who were domiciled in Ireland were aged 21 or over. The remainder were aged 20 or under. With a 60% share, more females than males accepted a place to study in higher education in the UK.

Table 10.2 Republic of Ireland Domiciled UCAS Acceptors by Discipline, 2008-2010

	2008	2009	2010	2009-10 % change
Engineering & Technology	320	305	239	-22%
Architecture, Building & Planning	190	223	162	-27%
Science & Computing	367	394	378	-4%
Total Technology	**877**	**922**	**779**	**-16%**
Medicine & Dentistry	76	62	92	+48%
Subjects Allied to Medicine	782	813	996	+23%
Agriculture and Vet	80	96	91	-5%
Total Health, Vet & Agriculture	**938**	**971**	**1,179**	**+21%**
Arts, Humanities & Combined	367	482	521	+8%
Education	50	77	88	+14%
Social Science, Business & Law	377	371	425*	+15%
Total Other	**794**	**930**	**1,034**	**+11%**
Overall Total	**2,609**	**2,823**	**2,992**	**+6%**

Source: UCAS

*Increase was for social studies and law subjects rather than business courses

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 2009-2010. Over 5,800 Irish students obtained a third level qualification (undergraduate or postgraduate) in the UK in 2010. Almost one quarter (1,430) of Irish graduates were in the fields of health, veterinary & agriculture; almost a fifth were in social science, business and law and a further 17% were in education. Science and computing graduates made up 12% of the total Irish graduates in the UK in 2010. This distribution of graduates by field of learning was broadly in line with that of previous years.

Over the period 2009-2010, the number of Irish domiciled students graduating from higher education in the UK grew by 4% (or approximately 250 additional graduates). There were increases for most of the fields of learning, most notably in education, where the number of graduates increased by almost a quarter. In addition, following declines in previous years, the number of graduates in engineering and technology increased by 8%, and those in arts, humanities and combined studies rose by 10% when compared to 2009. Declines were observed in two disciplines only – health, vet and agriculture (-2%) and social studies, business and law (-5%).

Table 10.3 Irish Domiciled 3rd Level Graduates in UK Higher Education 2009-2010

Discipline	2009	2010	% Change 2009-10
Health, vet and agriculture	1,455	1,430	-2%
Science & computing	685	690	+1%
Engineering & technology	455	490	+8%
Architecture, building & planning	455	485	+7%
Social studies, business & law	1,100	1,050	-5%
Arts, humanities & combined studies	630	695	+10%
Education	825	1,015	+23%
Total	5,605	5,855	+4%

Source: HESA (UK)

10.4 Erasmus Students – Outgoing from Ireland

The European region action scheme for the mobility of university students (ERASMUS) is a programme that enables higher education students to study or do a work placement for three to 12 months in one of 30 other European countries as part of their studies[29]. Over two million students Europe-wide have benefited from the programme since its inception in 1987/88; of these, almost 29,500 students were from Irish HEIs. Students on ERASMUS programmes are usually registered students in their home universities. The numbers included in this section are therefore a subset of the numbers outlined in Chapters 6 and 7 of this report.

Table 10.4 shows the numbers of outgoing Irish students over the period 2004-2008. Between 2004/05 and 2006/07 there were on average 1,550 outgoing Irish Erasmus students annually. The number the rose by 19% in 2007/08, due largely to approximately 300 students going abroad on work placements as part of their course (the number of students at foreign universities actually declined slightly to 1,514)[30]. In 2008/2009, the number of ERSAMUS students reached their highest number to date: 1,836 students went abroad, of which 415 were work placement students.

In 2008/09, over a quarter of all students went to France, followed by Spain (17%) and Germany (14%). The most notable changes observed over the five-year period included a fall in the share going to France

[29] ERASMUS participating institutions are not confined to the EU. ERASMUS includes Norway, Iceland and Turkey.
[30] Student mobility for placements enables students at higher education institutions to spend a placement (traineeship/internship) period between three and twelve months in an enterprise or organisation in another participating country. The Erasmus programme has offered students the opportunity to go abroad for placements since the academic year 2007/08 only.

from 31% to 26% (although the numbers have remained largely the same) while the share going to the UK increased to 12% (up from 3% in 2004/05).

Table 10.4 Outgoing ERASMUS students from Ireland by destination country, 2004-2009

Destination Country	2004/05	2005/06	2006/07	2007/08*	2008/09*
France	482	479	439	464	473
Spain	271	274	271	324	316
Germany	259	271	253	245	252
UK	52	43	43	158	224
Netherlands	81	82	71	68	86
Italy	87	87	94	102	84
Others**	340	331	353	456	401
Total	**1,572**	**1,567**	**1,524**	**1,817**	**1,836**

Source: European Commission

*Numbers include students going abroad to higher education institutions *and* on work placements.

**Includes: Sweden, Denmark, Belgium, Austria, Finland, among others.

Chapter 11 Lifelong Learning and the Adult Population

Key Points

- Approximately 111,000 persons aged 25+ participated in lifelong learning (LLL) in quarter 4 2010, representing 4.5% of the adult population
- Over the period quarter 4 2005 to quarter 4 2010, the number of LLL participants increased by 40% (or 32,000 learners)
- With a participation rate of 5% in quarter 4 2010, part-time employed persons were more likely to engage in LLL than those in full-time employment (3%) or the unemployed (4%).
- In quarter 4 2010, the likelihood of participating in LLL decreased with age: at 8.1%, the share of 25-34-year olds in LLL was almost double that of 35-44-year olds
- At 6% (58,000 persons), third level graduates were three times more likely to participate in LLL than those with lower secondary or less educational qualifications (2%, 9,000 persons) in quarter 4 2010
- Of the total 111,000 LLL participants in quarter 4 2010
    - 47% were in the economically inactive category (52,000 persons)
    - 30% were in full-time employment
    - 15% were in part-time employment
    - 8% were unemployed
- Over the period quarter 4 2005-quarter 4 2010, the LLL participation rate increased for all age groups but, in general, the younger the age cohort, the greater the increase.

11.1 Introduction

While the main focus of this report is on students who have yet to complete full-time education, there are also a growing number of people returning to education, either on a full- or part-time basis, across all levels of the education system (ranging from those taking basic literacy programmes through to third level and professional training). The data outlined thus far in this report includes such re-entrants to education; however, while their numbers or shares may be captured by mode of study or age variables, due to the limited nature of the data, and the limited availability of some privately sourced education and training awards, such data may not reflect the true extent of education and training undertaken by the adult population in Ireland.

In its Quarterly National Household Survey (QNHS), the Central Statistics Office (CS0) captures the number of people who stated they had engaged in formal education and training in the four weeks prior to the survey. The data on those reporting having recently received formal education is used in this report to estimate the number of lifelong learning participants in the population. Furthermore, by concentrating on those aged 25 years and over (the age by which most individuals have completed their initial education), it is possible to estimate the extent to which the **adult population** had recently engaged in lifelong learning. The data in this section is based on the data from the QNHS in quarter 4 2010; for comparison purposes data from quarter 4 2005 is also included. Note that some of the learner

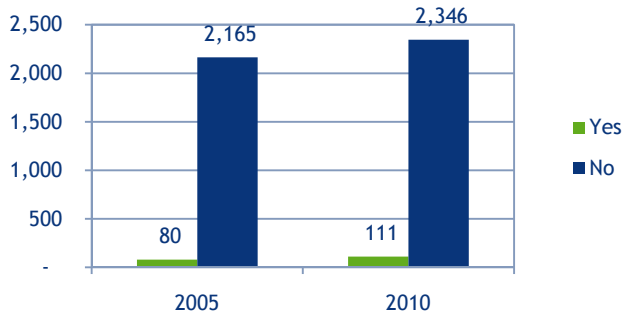
data captured in this section were also included in the enrolment and awards/graduation data in Chapters 2-9 (which included all age-groups).

In this report, the term 'lifelong learning' applies to those pursuing formal education only; it excludes non-formal education[31]. However, the term is often expanded to include both formal and non-formal education (e.g. Eurostat and the CSO, among others). Lifelong learning rates for Ireland presented in this chapter will therefore differ from some data published elsewhere (cf. CSO 2010[32] and Eurostat 2011[33]). In addition, the CSO's 2010 publication on lifelong learning differs from the present report in that the data is based on the results of a special survey module of the QNHS (quarter 3 2008) where the time scale was extended to cover the 12 months prior to the survey (compared to the four weeks prior to the study for the quarters examined in this Chapter).

11.2 Population Aged 25+ by Lifelong Learning (LLL) Participation

Of the total adult population of almost 2.5 million in quarter 4 2010, 111,000 participated in lifelong learning (LLL) in the four weeks prior to the survey (Figure 11.1). This is a 40% increase (or an additional 32,000 learners) on the 79,000 individuals participating in LLL in quarter 4 2005. In quarter 4 2010, the LLL participation rate of the adult population was 4.5%, an increase on the 3.6% observed in quarter 4 2005[34].

Figure 11.1 Population (25+ years) by LLL Participation (000s), Quarter 4 2005 & Quarter 4 2010



Source: SLMRU (FÁS) analysis of CSO (QNHS) data

[31] **Formal education** refers to education and training that typically takes place in schools, colleges and universities. Formal education is structured around one or more of the following features: the purpose and format are predetermined; it normally constitutes a continuous ladder of education; there are clearly defined learning objectives and learning time; it is normally intended to lead to certification or a nationally/internationally/professionally recognized award.
Non-formal education refers to all organised learning activities outside regular or formal education (e.g. courses or seminars intended to improve job-related knowledge or courses intended to improve skills for social and personal purposes, such as grinds, music lessons, driving lessons, etc.); courses may or may not lead to certification.

[32] CSO (2010) *QNHS, Quarter 3 2008 - Lifelong Learning*

[33] Eurostat (2011) Key Figures on Europe: 2011 Edition. Available at http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-EI-11-001/EN/KS-EI-11-001-EN.PDF

[34] This compares to the lifelong learning participation rates of 6.7% and 25% cited by Eurostat (2011) and the CSO (2010): lifelong learning participation rate of 6.7% for Ireland in the Eurostat statistics is due to the inclusion of non-formal learning in the data; the lifelong learning participation rate of 25% for Ireland published by the CSO (2010) was due to (a) the inclusion of non-formal learning in the data and (b) a difference in the length of the reference periods (i.e. 12 months for the CSO Special Module in Quarter 3 2008 compared to four weeks in the QNHS Quarter 4 2010).

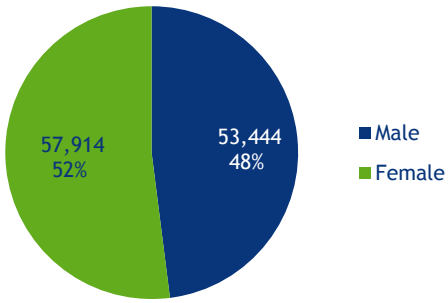
11.3 Lifelong Learning by Gender

As shown in Figure 11.2, of the 111,000 LLL participants in quarter 4 2010, 52% were female, amounting to almost 58,000 persons; 48% were male (approximately 53,000 persons). When compared to quarter 4 2005, the numbers of both males and females participating in LLL increased, although, at 63%, the growth for males was stronger than that for females (+24%). This resulted in an absolute increase of more than 20,000 additional learners for males and more than 11,000 additional learners for females.

While females outnumbered males and therefore made up the larger share in both quarter 4 2005 and quarter 4 2010, the share of males amongst LLL participants increased from 41% to 48% over the five-year period; there was a concomitant decline in the female share.

The participation rates for both males and females were slightly higher in quarter 4 2010 relative to quarter 4 2005: that for males went from 2.9% to 4.4% and that for females from 4.2% to 4.7% over the five-year period.

Figure 11.2 LLL Participation by Gender, Quarter 4 2010



Source: SLMRU (FÁS) analysis of CSO (QNHS) data

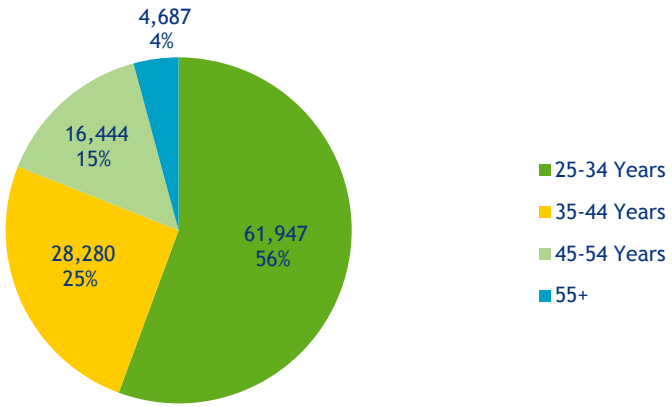
11.4 Lifelong Learning by Age

Of the 111,000 LLL participants in quarter 4 2010, 62,000 were aged 25-34, accounting for over one half of the total; 28,000 were aged 35-44, representing one quarter; over 16,000 were aged 25-54 years (a 15% share), while those aged 55+ amounted to almost 5,000 persons (or 4% of the total) (Figure 11.3).

When compared to quarter 4 2005, the numbers increased by at least one third across all age groups, with the exception of those aged 55+. The largest increase was amongst the 25-34 year-olds which rose by more than 16,000 (a 35% rise); the largest relative increase occurred for the 35-44 year-old age category, where the numbers rose by 49%, going from 19,000 to 28,000; the number of 45-54 year-old LLL participants grew strongly - by 46% (+5,000 learners), going from 11,000 to 16,000. Finally, the number of LLL participants aged 55+ rose by 30%, going from over 3,600 to 4,687 over the five-year period.

There was little change in the relative distribution of LLL participants by age between quarter 4 2005 and quarter 4 2010, apart from a one percentage point rise each in the share of 34-44 year-olds and 45-54 year-olds (up from 24% and 14% to 25% and 15% respectively) and a two percentage point decline in the share of 25-34 year-olds (down from 58% to 56%).

Figure 11.3 LLL Participation by Age Group, Quarter 4 2010

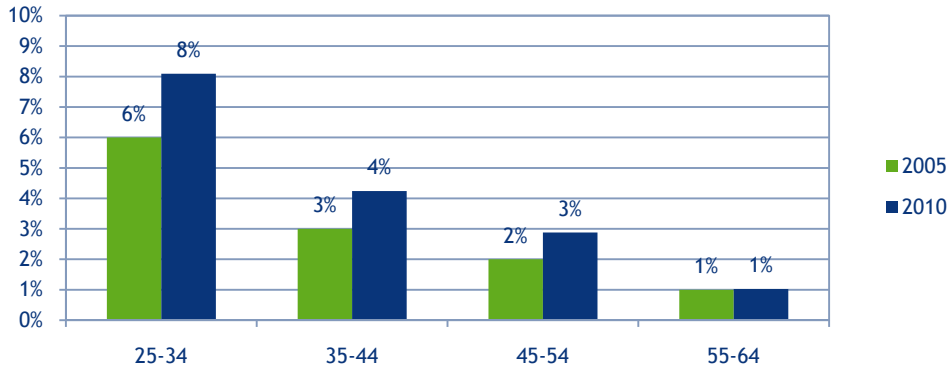


Source: SLMRU (FÁS) analysis of CSO (QNHS) data

As shown in Figure 11.4, the likelihood of participating in LLL decreases with age: at 8.1%, the share of 25-34-year olds (62,000 persons) in receipt of education and training was almost double that of 35-44-year olds (4.2% or 28,000 persons); just under 3% of those aged 45-54 years and a negligible share of those aged over 55 years (1%, or 5,000 persons) had been in receipt of education and training in the preceding four weeks.

When compared to quarter 4 2005, the LLL participation rate increased for all age categories but in general, the younger the age cohort, the greater the increase: the share of 25-34 year-olds in receipt of education and training in the preceding four weeks increased by almost two percentage points (from 6% to 8%) while the share of 35-44 years olds and 45-54-year olds rose by just over one percentage point each (from 3% to 4% and 2% to 3% respectively). There was almost no change in the LLL participation rate of the over 55s.

Figure 11.4 LLL Participation Rates by Age, Quarter 4 2005 and Quarter 4 2010



Source: SLMRU (FÁS) analysis of CSO (QNHS) data

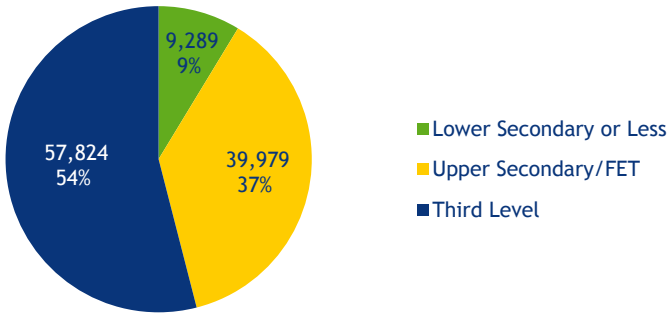
11.5. Lifelong Learning by Education Level

Of the 107,000 LLL participants who stated their highest level of educational attainment in quarter 4 2010, almost 58,000 were third level graduates, representing over one half of the total; almost 40,000 persons (37%) had completed upper secondary or further education and training (FET), with the remaining 9,000 persons (or 9%) having attained lower secondary education or less (Figure 11.5).

When compared to quarter 4 2005, there were increases in the numbers participating in LLL across each of the educational attainment categories: those with upper secondary/FET qualifications grew by more than a half, going from approximately 25,000 to almost 40,000 over the five-year period; the number of third level graduates participating in LLL grew by a third (an additional 14,000 persons) while the smallest growth was recorded for those with lower secondary educational qualifications which went from 8,000 to over 9,000, a rise of 11%.

Over the period quarter 4 2005 to quarter 4 2010, the share of LLL participants who had third level or lower secondary or less educational qualifications declined slightly (by two percentage points each to 54% and 9% respectively); in contrast the share of LLL participants who had upper secondary/FET qualifications increased by four percentage points to reach 37% (up from 33%).

Figure 11.5 LLL participation by highest level of education attained, Quarter 4 2010

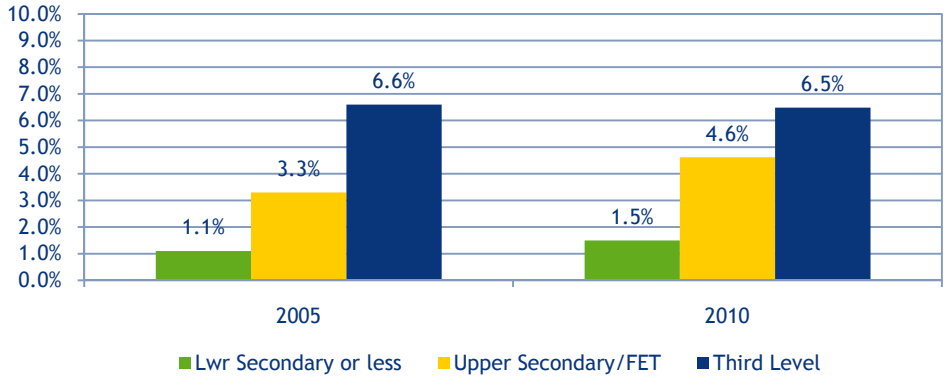


Source: SLMRU (FÁS) analysis of CSO (QNHS) data

In terms of LLL participation rates, the higher the educational attainment, the greater the likelihood of participating in LLL (Figure 11.6): at 6% (58,000 persons), third level graduates were three times more likely to participate in LLL than those with lower secondary or less educational qualifications (2%, 9,000 persons) in quarter 4 2010. The participation rate for those with upper secondary/FET qualifications was 5%, amounting to 40,000 persons.

When compared to quarter 4 2005, the LLL participation rate in quarter 4 2010 grew from 1% to 2% for those with lower secondary or less qualifications and from 3% to 5% for those with upper secondary/FET qualifications. The share of third level graduates participating in LLL declined slightly by 0.1 percentage points.

Figure 11.6 Adult population by LLL participation and highest educational attainment, Quarter 4 2005 and Quarter 4 2010

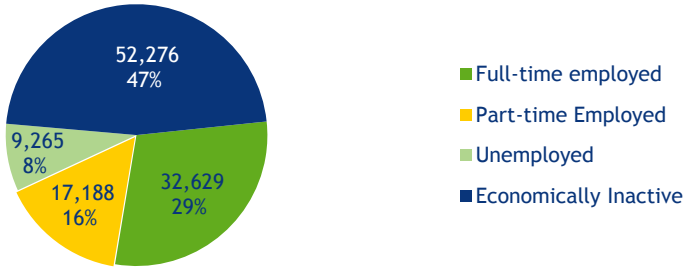


Source: SLMRU (FÁS) analysis of CSO (QNHS) data

11.6 Lifelong Learning by Economic Status

This section examines the economic status of LLL participants at the time of undertaking education or training. Of the 111,000 LLL participants in quarter 4 2010, the economically inactive category, with 52,000 persons, had the greatest number, accounting for approximately one half of all LLL participants[35]. Almost 33,000 LLL participants were in full-time employment, making up 29% of the total; 17,200 were employed part-time (16%), while over 9,000 (8%) were unemployed.

Figure 11.7 LLL Participation by Economic Status, Quarter 4 2010



Source: SLMRU (FÁS) analysis of CSO (QNHS) data

When compared to quarter 4 2005, the number of LLL participants in each economic category increased; the largest absolute increase was in the economically inactive category, which rose by over 19,000 (+58%). Those in full-time employment remained largely unchanged with just a 1% increase.

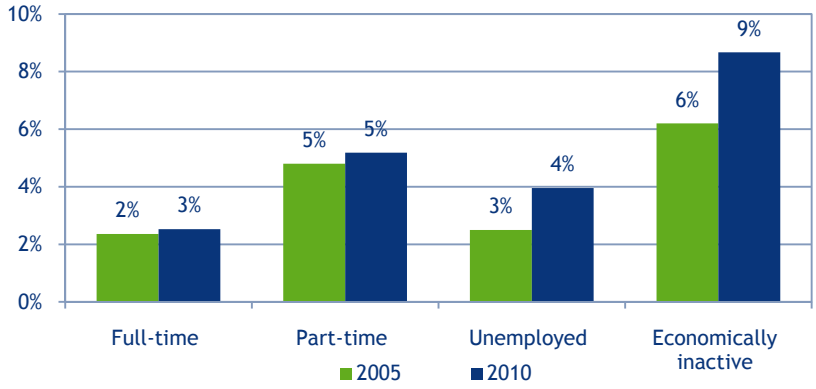
Over the period quarter 4 2005 to quarter 4 2010, the share of LLL participants who were employed full-time declined considerably, going from 41% to just under 30% over the five-year period – a drop of 11 percentage points. In contrast, the share of LLL participants who were unemployed or economically inactive increased from 2% to 8% and 42% to 47% respectively. The share of those in part-time employment remained unchanged at 15%.

The highest LLL participation rate was recorded for those who were economically inactive (9%) (Figure 11.3). At 5%, part-time employed persons were more likely to engage in LLL than those in full-time employment (3%) or the unemployed (4%).

With the exception of part-time employed persons, the share of those participating in LLL increased by at least one percentage point between quarter 4 2005 and quarter 4 2010. The largest relative increase was for those in the economically inactive category (+ three percentage points), while the share in part-time employment remained relatively stable at 5%.

[35] The economically inactive category includes full-time students; full-time students in the adult population include re-entrants to education (i.e. mature students) or postgraduate students (e.g. PhD students).

Figure 11.8 LLL Participation Rate (%) by Employment Status Quarter 4 2005 and Quarter 4 2010



Source: SLMRU (FÁS) analysis of CSO (QNHS) data

11.6.1 Economically Inactive:

In quarter 4 2010, of the 52,300 LLL participants who were economically inactive[36] (which includes, among others, full-time students)

- Females outnumbered males: approximately 27,000 were female (52%); almost 25,000 were male (48%)
- Approximately 30,000 were aged 25-34; 12,000 were aged 35-44 and over 10,000 were aged 45 or more, accounting for a 57% share, 23% share and 20% share, respectively
- Approximately 21,000 were third level graduates; almost 23,000 had upper secondary/FET qualifications and just under 7,000 had lower secondary or less, making up 41%, 45% and 14% of all LLL participants those who stated their highest level of education attained

In terms of LLL participation rates amongst the economically inactive in quarter 4 2010

- When compared to females, males were nearly twice as likely to participate in LLL (13% of all economically inactive males compared to 7% for females)
- Younger age cohorts were most likely to participate in LLL: the participation rate for 25-34 year-olds was 23% compared to 9% for 35-44 year-olds, and 3% for those aged 45 or more
- Third level graduates were six times more likely than those with lower secondary qualifications to have participated in LLL (18%, compared to 3%)

When compared to quarter 4 2005

- The number of male participants more than doubled, going from approximately 12,000 to almost 25,000 over the five-year period

[36] Of the economically inactive, approximately 80% had classified themselves as students in quarter 4 2010.

- Although the majority of LLL participants in both time periods were female, males made considerable gains, going from a 36% share in quarter 4 2005 to 48% in quarter 4 2010
- The share of younger LLL participants declined from 60% (to 58%), while the share of older participants increased slightly (from 18% to 20%); at approximately 23% the share of those aged 34-45 remained stable
- There were increases in participation rates across all age groups, although the younger the age cohort, the greater the increase: the participation rate for the economically inactive aged 25-34 years increased from 19% to 30%; those aged 35-44 from 6% to 10% and those aged 45 and over from 2% to 3%.
- The share of those with upper secondary/FET qualifications increased from 39% to 45%, but there was a decline for those with lower secondary or less qualifications (from 17% to 14%) and for those with third level qualifications (down from 43% to 41%)

11.6.2 Employed:

In quarter 4 2010, of the 50,000 LLL participants who were in employment

- Almost two thirds (approximately 33,000 persons) were in full-time employment; the remainder (over 17,000 persons) were in part-time employment
- Females outnumbered males: almost 27,000 were female (53%); over 23,000 were male (47%)
- The majority (more than two thirds) were third level graduates, accounting for 33,000 persons
- Almost 29,000 (57%) were aged 25-34; almost 13,000 (26%) were aged 35-44; over 8,000 (17%) were 45 years or over
- More than 13,000 were in professional occupations; 8,000 were in services occupations and almost 8,000 were in associate professional occupations

In terms of LLL participation rates amongst the employed in quarter 4 2010,

- Part-time employed males were most likely to participate in LLL: at 8%, they were twice as likely as their female counterparts and four times more likely than full-time employed males to participate in LLL
- At 2%, full-time employed males were least likely to participate in LLL
- At 6%, employed persons aged 25-34 were six times more likely than those aged 45 and over to participate in LLL (1%)
- With a participation rate of 8%, third level graduates were most likely to participate in LLL, followed by those with upper secondary/FET qualifications at 5%

When compared to quarter 4 2005,

- There was a 40% increase in the number of LLL participants who were employed part-time (going from 12,000 to over 17,000) over the five year period
- The number of full-time employed LLL participants remained stable at approximately 33,000
- There were increases in the numbers in the younger age cohorts, but at just under 9,000, those participating who were aged 45 or over remained unchanged

- The age distribution remained largely unchanged, with more than a half and approximately one quarter aged 25-34 and 35-44 in each time period.
- The education distribution remained largely similar although the share of those with upper secondary/FET fell by three percentage points (from 28% to 25%)
- The participation rate of third level graduates in part-time employment declined from 10% to 8% but remained stable at 4% for their counterparts in full-time employment

11.6.3 Unemployed:

In quarter 4 2010, of the 9,300 LLL participants who were unemployed,

- Males outnumbered females: there were over 5,000 males (57%) and approximately 4,000 females (43%); this is the widest gender gap in any of the employment categories considered in this section
- The 34-44 year-old age group had the largest number of LLL participants at approximately 4,000, accounting for 38% of the total unemployed LLL participants; this is the only category where the 25-34 year-old age group is not the largest
- Approximately 45% (over 4,000) held upper secondary/FET qualifications

In terms of LLL participation rates amongst the unemployed in quarter 4 2010,

- At a rate of 6%, females were twice as likely as males to participate in LLL (the male participation rate was 3%)
- At 5%, unemployed persons most likely to participate in LLL were aged 35-44 years (compared to 4% for those aged 25-34 and 3% for those aged 45+)
- Of those unemployed, third level graduates were seven times more likely than early school leavers to participate in LLL (7% participation rate compared to 1%)

The number of unemployed LLL participants in quarter 4 2005 was too small to report.

Appendix A FETAC Field of Learning Classification

Field
Subfield
Domain

Table A.1 FETAC Field of Learning Classification

Agriculture, Science and Computing
Agriculture(1.1)
Agriculture (livestock, farm animals, crops, farming, land)
Horticulture (fruit, vegetables, plants, gardens, landscape)
Floristry (flower arranging, display)
Veterinary/Pets/non-Farm Animals
Poultry (Geese, Ducks, Hens, Eggs)
Aquaculture
Equitation (horses, stables, equine)
Fisheries (commercial fishing, nets, fishing equipment)
Forestry (trees, timber)
Science(1.2)
Natural Sciences/Food Science/Environmental Science, Environment, Conservation, Botany, Biology
Applied Science - Chemistry/Physics/Materials
Laboratory Skills
Statistics/Mathematics/Research
Computing(1.3)
Hardware
Systems + Networks
Web Design/Internet
Software Engineering/Design/Software Development/ Programming
2. Arts, Craft & Media
Arts(2.1)
Music
Drama (the play and the players)
Theatre (lighting, production tasks, scene-paining)
Dance
Visual Arts, Craft. Design(2.2)
Craft/Design (furniture, stained glass, jewellery, ceramics/upholstery/restoration/wood-turning/pottery)
Textiles - woven/constructed, print, fashion design/tailoring (not manufacture)
Interior/Décor Design (feng shui, decorative painting techniques)
Fine Art - sculpture, painting/drawing, print (etching/screen-printing/litho)
Media(2.3)
Photography
Television/video/Film (including production)
Radio/Broadcasting/Sound
Multi-Media/animation (other than web see 1.3.3.)
Printing + Publishing/DTP
Graphic Design
3. Business & Administration
Business

Legal
Retail/Wholesale/Trade/Sales/Estate Agency/Purchasing/applied Economics
Finance/Banking/Insurance/Taxation/Accounting
Enterprise/Business Development/Entrepreneur/SYOB/Gen Business/
Marketing/PR
Human Resource/Customers/Organisational DEV + Sk./Personnel
Advertising/Display/Merchandising
Management Skills/Principles/Project Mgmt (motivation/delegation)
Journalism
Social and Behavioural Science
Library
Administration
Secretarial/Admin Skills/TeleServices/Payroll
Office Work/filing/Telephone
Admin-related ICT Applications/data entry
4. Construction & Built Environment
Planning and Design
Architectural Assistant Skills
Draughting/CAD
Planning Services, surveying
Housing & Building Construction
Construction Trades
Technical Operatives/Scaffolding/
Construction Site Activities/Building Work/General Maintenance
Civil Engineering
Civil Works, eg Roads , Plant Operators
Engineering Technicians
Restoration, Traditional, Heritage
Heritage Craft Skills (stone wall building)
Restoration Skills
5. Core Skills, Language & General Studies
Core Skills
Communication (writing, speaking, listening except literacy see 5.1.2.)
Numeracy + Literacy + Visual Literacy
ICT Introduction (basic keyboard Sk, computer literacy)
Preparation for Work (CV, Interview Techniques)
Lifeskills (culture/day-to-day living/the world around us)
Personal Development (learning to learn, study skills)
Language
European Language, International Language (other than European)
English (incl ESOL)
Irish
General Studies
Irish Tradition + Culture
EU Studies + Culture
History/Geography/Archaeology
Civics/Politics/Liberal Arts/Classics
Philosophy
6 Education, Health & Welfare
Education & Training
Trainer/Train the Trainer/Mentor

Assessor/Evaluator
Prof. Development Studies
Supervisory Studies
Education Studies/Montessori
Classroom Assistant
YouthWork
ChildCare
Community Care/Social Work
Health and Welfare
Complementary Therapies
Nursing - Allied Skills
Health Care Support
Dental Studies
Disability Studies
7 Engineering & Manufacturing
Engineering
Electrical/Electronics/Electromechanical
Mechanics/Mechanical/Tools
Refrigeration
AirCraft/Naval/Boats/Navigation
Engineering Processes/Fitting/Turning/Metals/tool-making
TeleComms/Audio/TV Servicing
Environmental (Energy, Waste) Processes
Chemicals + Processing/Pharmaceuticals
Building Security - Alarm Installation
Manufacturing and Processing
Manufacturing Ops/Production Line/Factory
Food + Dairy Processing
Textiles + Footware Manufacture
Materials (plastic, glass, paper, wood) Manufacture
Medical Devices/Instrumentation
8. Services
Personal
Beauty
Hairdressing
Domestic Services (commercial cleaning)/DIY
Funeral/Other Services
Logistics
Warehouse/ForkLift/Storage
Transport/Logistics
Driving (HGV eg)
Freight/Forwarding
Security
Door Security (Bouncer)
Commercial Security
Military
Prison/Prisoner Security (Dept. Justice)
Emergency Service Personnel/Occupational Health and Safety
Environmental protection
Wastewater treatment/Water protection

9. Tourism, Hospitality & Sport
Tourism
Travel
Tourism (non Hospitality)/rural tourism/sports tourism
Tour Guiding
Visitor/Heritage Centre Operations/Skills
Hospitality
Hotels + GuestHouse (Accomm, Front Office, B+B e.g.)
Catering/kitchen
Restaurant + Bar
Food Safety/Hygiene (HACCP)
Customer Care Hospitality
Sport
Leisure Centre Activities/Leisure/Recreation/Sports Safety/Lifeguard
All Sports (football/soccer/volleyball/surfing…..)
Health + Fitness/health-related fitness/exercise
Coaching + Training/Sports Instructor
10. Unclassified

Source: FETAC

Appendix B Education Field Occupations

Table B.1 Occupations Included in Education Fields

Education Fields	Occupations	Occupations
Education	Careers advisors	Primary and nursery education teachers
	Driving instructors (excluding HGV)	Secondary and vocational education teachers
	Educational assistants	Special education teachers
	Higher and further education teachers	University and RTC teachers
	Other managers n.e.c.	Vocational, industrial trainers
	Other teaching professionals nec.	
Humanities & Arts	Actors, entertainers, stage producers and directors	Originators and compositors
	Artists, commercial/industrial and designers	Other printing trades
	Bookbinders and print finishers	Photographers, camera, sound and video operators
	Clergy	Printers
	Clothing designers	Printing machine minders and assistants
	Goldsmiths, silversmiths, precious stone workers	Screen printers
	Musical instrument makers	Weavers
	Musicians	Window dressers, floral arrangers
Social sciences, Business and Law	Accounts and wages clerks, other financial clerks	Management consultants and business analysts
	Actuaries, economists, statisticians	Managers/proprietors of shops etc.
	Administrators of schools and colleges	Marketing etc. managers
	Advertising and PR managers	Medical secretaries
	Archivists and curators	Merchandisers
	Authors, writers, journalists	Officials of trade association etc.
	Bank etc. managers	Other clerks (n.o.s.)
	Barristers and advocates	Other financial managers n.e.c.
	Buyers (retail)	Other sales representatives n.e.c
	Buyers and purchasing officers (not retail)	Other secretaries
	Cashiers bank and counter clerks	Other social/behavioural scientists
	Chartered and certified accountants	Personnel etc. managers
	Civil Service administrative officers	Personnel, industrial relations officers
	Civil Service EO	Petrol pump attendants
	Collector salespersons and credit agents	Property and estate managers and proprietors
	Commodity and shipping brokers	Psychologists
	Company financial managers	Purchasing managers
	Company Secretaries	Receptionists
	Computer operators, other office machine operators	Retail cash desk and check out operators
	Credit Controllers	Roundsmen/women and van salespersons
	Debt, rent and other cash collectors	Sales assistants
	Estimators and valuers	Sen. Managers; national government
	Filing, computer and other records clerks	Solicitors
	General administrators; national government	Stores managers
	General Managers; large companies	Taxation experts

Education Fields	Occupations	Occupations
	Importers and exporters	Technical and wholesale sales representatives
	Judges	Telephone operators
	Legal secretaries	Telephone salespersons
	Legal service and related occupations	Typists, word processor operators
	Librarians	Underwriters, claims assessors and analysts
	Library assistants/clerks	Warehousemen/women
	Local government clerical officers and assistants	Warehousing managers
	Local government officers	Work study officers
	Management accountants	
Science, Mathematics & Computing	Biological scientists	Laboratory technicians
	Chemists	Marine, insurance and other surveyors
	Computer analyst/programmers	Other natural scientists n.e.c
	Computer systems managers	Other scientific technicians n.e.c.
	Environmental health officers	Physicists
	Environmental health, Occupational hygienists	Software engineers
Engineering, Manufacturing & Construction	Aircraft officers	Motor mechanics
	Architects	Moulders and die casters
	Architectural, town planning technicians	Moulders and Furnace operatives (metal)
	Assemblers/lineworkers (electrical/electronic goods)	Other Assemblers/lineworkers
	Assemblers/lineworkers (metal goods and other goods)	Other building and civil engineering labourers
	Bakers, flour confectioners	Other chemical, paper, plastics and related operatives
	Bakery and confectionery process operatives	Other construction trades n.e.c.
	Barbenders, steel fixers	Other craft and related occupations
	Brewery and vinery process operatives	Other electrical/electronic trades n.e.c.
	Bricklayers, masons	Other engineers and technologists n.e.c.
	Builders, building contractors	Other food, drink and tobacco process operatives
	Building and civil engineering technicians	Other machine tool setters and CNC setter-operators n.e.c.
	Building inspectors	Other metal making process operatives n.e.c
	Building managers	Other plant, machine and process operatives n.e.c.
	Building, mining and other surveyors	Other routine process operatives
	Butchers, meat cutters	Other textiles processing operatives
	Cabinet makers	Other textiles, garments and related trades n.e.c.
	Cable jointers, lines repairers	Other transport and machinery operatives n.e.c.
	Carpenters and joiners	Other woodworking trades n.e.c.
	Chemical engineers	Packers, bottlers, canners, fillers
	Chemical, gas and petroleum process plant operatives	Painters and decorators
	Civil/mining engineers	Paper, wood and related process plant operatives
	Clerk of works	Paviors and kerb layers
	Clothing cutters, milliners and furriers	Preparatory fibre processors
	Coach and other spray painters	Pipe layers/pipe jointers
	Coach and vehicle body builders	Planning and quality control engineers

Education Fields	Occupations	Occupations
	Coach trimmers, upholsterers and mattress makers	Plasterers
	Coal mine labourers	Plastics process operatives
	Computer engineers, installation and maintenance	Plumbers, heating and related trades
	Construction and related workers	Precision instrument makers
	Cutting and slitting machine operatives	Press stamping and automatic machine workers
	Design and development engineers	Production and works managers
	Draughtspersons	Production engineers
	Electrical engineers	Quantity surveyors
	Electrical, energy, boiler and related plant attendants	Radio and telegraph operators
	Electrical/electronic technicians	Radio, TV and video engineers
	Electricians, electrical maintenance fitters	Rail construction and maintenance workers
	Electronic engineers	Road construction and maintenance workers
	Engineering technicians	Roofers, slaters, tilers, sheeters, cladders
	Face trained coal miners	Routine laboratory testers
	Floorers, floor coverers, carpet fitters, tilers	Rubber process operatives and tyre builders
	Garage managers and proprietors	Scaffolders, riggers, steeplejacks
	Glass and ceramic furnice operatives	Sewing machinists, menders, darners and embroiderers
	Glass product and ceramics finishers	Sheet metal workers
	Glass product and ceramics makers	Ship and hovercraft officers
	Glaziers	Shoe repairers and other leather making and repairing
	Industrial designers	Shot blasters
	Inspectors, viewers and testers (metal goods)	Shunters and points operatives
	Inspectors, viewers and testers (other goods)	Slingers
	Knitters	Smiths, forge/Metal plate workers
	Labourers in engineering trades	Spinners, doublers, twisters
	Labourers in foundries	Steel erectors
	Labourers in other making/processing industries	Tailors, dressmakers
	Machine tool operatives (inc. CNC operatives)	Tannery production operatives
	Managers/proprietors of butchers	Telephone fitters
	Mates in Building Trade	Tobacco process operatives
	Mates in woodworking trades	Tool makers, tool fitters and markers out
	Mates to metal/electrical and related fitters	Town planners
	Mechanical engineers	Tyre and exhaust fitters
	Mechanical plant drivers/operatives	Vehicle body repairers, panel beaters and spray painters
	Metal plate workers	Warp preparers, bleachers, dyers and finishers
	Metal polishers	Washers, screeners and crushers in mines and quarries
	Metal working production and maintenance fitters	Weighers, graders, sorters
	Mine (excluding coal) and quarry workers	Welding trades
	Mining and energy industry managers	Woodworking machine operatives
Agriculture & Veterinary	Agricultural machinery drivers	Gardeners, groundsmen/groundswomen
	Farm owners and managers	Horticultural trades

Education Fields	Occupations	Occupations
	Farm workers	Other farming occupations
	Fishing and related workers	Other managers in farming,horticulture etc
	Fishmongers, poultry dressers	Veterinarians
	Forestry workers	
Health & Welfare	Ambulance staff	Midwives
	Care assistants and attendants	Nursery nurses
	Chiropodists	Nurses
	Dental nurses	Nurses aids etc.
	Dental practitioners	Occupational and therapists n.e.c
	Dental technicians	Ophthalmic and dispensing opticians
	Hospital porters	Other childcare and related occupations
	Hospital ward assistants	Other health associate professionals n.e.c.
	Information officers and guidance specialists	Pharmacists/pharmacologists etc
	Matrons, houseparents	Physiotherapists
	Medical practitioners	Playgroup leaders
	Medical radiographers	Social workers, probation officers
	Medical technicians, dental auxiliaries	Welfare, community and youth workers
Services	Air traffic planners and controllers	Other personal service workers
	Bar staff	Other security and protective service occupations n.e.c.
	Beauticians	Other statutory inspectors
	Bookmakers	Police officers (sergeant and below)
	Bus conductors	Postal workers, mail sorters
	Bus conductors and coach drivers	Prison service officers (below principal officer)
	Bus inspectors	Professional athletes, sports officials
	Car park attendants	Publicans, innkeepers and club stewards
	Caretakers	Rail engine drivers
	Chefs, cooks	Railway line operatives
	Cleaners, domestics	Railway station staff
	Counterhands, catering assistants	Railway station workers, supervisors and guards
	Crane drivers	Refuse and salvage collectors
	Customs and excise officers, immigration officers	Restaurant and catering managers
	Drivers mates	Road sweepers
	Drivers of road goods vehicles	Road transport depot inspectors
	Entertainment and sports managers	Seafarers (merchant navy) barge and boat operatives
	Fire service officers (leading fire officer and below)	Security guards and related occupations
	Fork truck drivers	Sen. Fire service officers
	Hairdressers and barbers managers	Sen. Police officers
	Hairdressers, barbers	Senior Prison officers
	Hotel and accommodation managers	Shelf fillers
	Hotel porters	Stevedores, dockers
	Housekeepers (domestic)	Taxi, cab drivers, chauffeurs and couriers
	Housekeepers (non-domestic)	Transport managers

Education Fields	Occupations	Occupations
	Inspectors of factories, trading standards	Travel agency managers
	Kitchen porters	Travel and flight attendants
	Launderers, dry cleaners, pressers	Undertakers
	Messangers, couriers	Waiters, waitresses
	NCOs and other ranks	Water and sewerage plant attendants
	Officers in armed forces	Window cleaners
	Other occupations in sales and services n.e.c.	All other gainful occupation n.e.c
Other	At work no other info	All other labourers and related workers
	Factory machinists - no other info	Goods porters
	FAS workers - no other info	Market/street traders
	Fulltime student	Other associate professional and technical occupations n.e.c
	Maintenance workers - no other info	Scrap dealers
	Other, no reason specified	Traffic wardens

Appendix C Private Education Providers

HETAC data in chapter 5 includes awards made for courses in the following colleges

Carlow College
Clanwilliam Institute
Dublin Business School
Dublin Business School (Joint Awards)
Fidelity Investment
Griffith College
Griffith College (Joint Awards)
Hibernia
IBAT
ICD Business School
Irish Management Institute
Independent Colleges
Institute of Physical Therapy & Applied Science
Institute of Purchasing and Materials Management
Irish Academy of PR
Kimmage Development Centre
Miltown Institute
National College of Ireland
Newpark Music Centre
St Nicholas Montessori College
The American College
The Open Training College

Professional bodies included in the awards data in Chapter 5 include

Institute of Bankers
Irish Tax Institute
Irish Management Institute (for short courses)
Association of Chartered Certified Accountants
Association of International Accountants
Institute of Chartered Accountants in England & Wales
Institute of Chartered Accountants in Ireland
Institute of Chartered Accountants of Scotland
Institute of Certified Public Accountants in Ireland
Institute of Incorporated Public Accountants
Chartered Institute of Management Accountants
Chartered Institute of Public Finance and Accountancy

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Projections of Full Time Enrolment: Primary, Second and Higher Level, 2011-2031 (DES: 2011)

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)

Members of the Expert Group on Future Skills Needs

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Publications by the Expert Group on Future Skills Needs

Report	Date of Publication
National Skills Bulletin 2011	July 2011
Developing Recognition of Prior Learning: The Role of RPL In the Context of the National Skills Strategy Upskilling Objectives	April 2011
Vacancy Overview 2010	March 2011
Future Skills Needs of Enterprise within the Green Economy in Ireland	November 2010
Future Skills Requirements of the Biopharma-Pharmachem Sector	November 2010
Monitoring Ireland's Skills Supply - Trends in Education and Training Outputs 2010	July 2010
National Skills Bulletin 2010	July 2010
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
Monitoring Ireland's Skills Supply: Trends in Education/Training Outputs 2008	July 2008
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
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National Skills Bulletin 2007	November 2007
Monitoring Ireland's Skills Supply: Trends in Educational/Training Outputs	June 2007
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The Demand and Supply of Skills in the Food Processing Sector	April 2003
National Survey of Vacancies in the Private Non-Agricultural Sector 2001/2002	March 2003
National Survey of Vacancies in the Public Sector 2001/2002	March 2003
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Labour Participation Rates of the over 55s in Ireland	December 2001
The Third Report of the Expert Group on Future Skills Needs - Responding to Ireland's Growing Skills Needs	August 2001
Benchmarking Mechanisms and Strategies to Attract Researchers to Ireland	July 2001
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 2nd 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

Notes

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