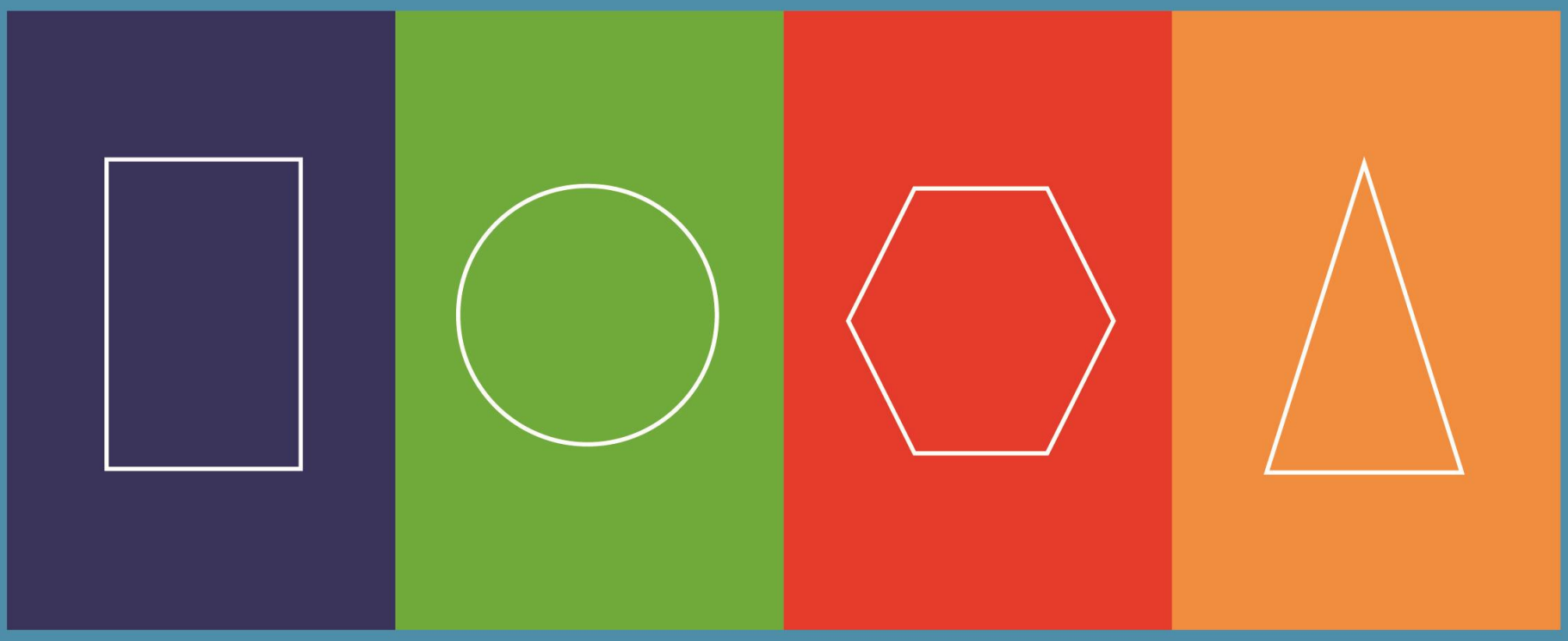

Monitoring Ireland's Skills Supply

Trends in Education and Training Outputs

July 2012

Foras Áiseanna Saothair
Training & Employment Authority

Expert Group on
Future Skills Needs

Monitoring Ireland's Skills Supply

Trends in Education and Training Outputs

2012

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Foreword

A sufficient supply of skills to the workforce is important in boosting employment, fostering economic growth and promoting better lives for individuals. However, it is also important to ensure that the types of skills available in Ireland's labour market are aligned with the skills that are in demand. Trends in education and training outputs reveal important data on student choices and serve as an indicator of possible future supply to the labour market from the education and training system.

The purpose, therefore, of this report, *Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs*, is to gather all available information on the inflows and outflows of the Irish education system (primary, post-primary, further education and training, and higher education) across the ten levels of the National Framework of Qualifications (NFQ). It reports on the demographic profile of the school age population, Junior and Leaving Certificate trends, further and higher education and training awards and where graduates progress after attaining a higher level qualification.

The Report shows that an increasing number of people are gaining awards across almost all levels of the NFQ: in 2011, there were in excess of 210,000 awards made, amounting to approximately 5% more than in 2010. Over the period quarter 4 2006 to quarter 4 2011, the number of adults in formal learning increased by 34%. With the number of graduates expected to continue to increase across all sectors of the education and training system in Ireland in the coming years, this ensures a continued supply of skills and labour to the workforce into the future.

This report is the seventh 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). Together with its companion publication, the National Skills Bulletin 2012, this report serves as a valuable tool in the EGFSN's role in advising Government on the current and future skills needs of the economy and anticipating any mismatches between skills supply and demand.

I would like to take this opportunity to thank all the education providers and stakeholders who provided the data and statistics gathered in this report.

Una Halligan,

Chairperson, Expert Group on Future Skills Needs

Executive Summary

'Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs' is the seventh 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. The aim of this series of reports is to provide an overview of the potential supply of skills to the Irish labour market from Ireland's 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 in excess of 210,500 awards issued in 2011; of these, there were approximately
  - 57,000 Junior Certificates
  - 57,500 Leaving Certificates
  - 38,000 FETAC major awards
  - 58,000 higher education awards (refers to 2010 data)
- Students are increasing 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 total number of FETAC award holders (all award types) reached almost 181,000 in 2011, an increase of approximately 52,000 (or 40%) when compared to 2007
- There were almost 46,000 CAO acceptances (NFQ 6-8) in 2011; since 2010 declines of 10% and 1% occurred at levels 6 and 7 respectively, but level 8 increased by 2%
- At undergraduate level (NFQ 6-8), there were over 40,000 awards in higher education in 2010 mostly at level 8; compared to 2009, graduate output increased at each level (NFQ 6-8)
- Enrolments on postgraduate higher education programmes totalled almost 34,000 in 2010, including 8,600 for PhD programmes
- There were over 18,100 graduates from postgraduate programmes in 2010, an increase of 13% compared to 2009
- In quarter 4 2011, 84% of all level 8-10 graduates aged 25-34 were in employment, compared to a rate of 70% for the total in this age cohort in employment; those with health and welfare qualifications were the most likely to be in employment and also most likely to be employed in a field related to their qualification
- Approximately 107,000 persons aged 25+ participated in lifelong learning (LLL) in quarter 4 2011, representing 4.4% of the adult population.

Summary of Outputs from the Irish Education System

Table 1 Summary of Education and Training Awards by NFQ Level, 2011[1]

	NFQ 1-2	NFQ 3	NFQ 4	NFQ 5	NFQ 6	NFQ 7	NFQ 8	NFQ 9/10	Total
Junior Certificate	-	57,000	-	-	-	-	-	-	57,000
Leaving Certificate	-	-	57,500		-	-	-	-	57,500
FETAC (Major awards)*	800	3,430	1,180	23,490	8,960	-	-	-	37,860
Institutes of Technology	-	-	-	-	2,740	7,200	9,140	2,300	21,380
Universities	-	-	-	-	1,420	1,950	17,660	15,820	36,850
Total	800	60,430	82,170		13,120	9,150	26,800	18,120	210,590

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, 2011[1]

Field	NFQ 1-2	NFQ 3	NFQ 4	NFQ 5	NFQ 6	NFQ 7	NFQ 8	NFQ 9/10	Total
General	800	3,290	650	320	-	-	-	-	5,060
Education	-	-	220	10	40	50	1,700	3,200	5,220
Humanities & Arts	-	-	10	2,720	830	1,210	5,020	2,170	11,960
Social Science, Bus. & Law	-	120	100	5,580	2,160	2,430	8,130	6,090	24,610
Science & Computing	-	-	-	880	500	890	3,280	2,050	7,600
Engineering & Construction	-	-	20	510	4,290	2,210	3,140	1,300	11,470
Agriculture & Veterinary	-	-	80	1,310	1,080	270	270	110	3,120
Health & Welfare	-	20	10	10,050	2,580	1,050	4,690	2,800	21,200
Services	-	-	-	2,090	1,650	1,020	580	410	5,750
Total	800	3,430	1,090	23,470	13,130	9,130	26,810	18,130	95,990

Source: FETAC (Major Awards); HEA

[1] Graduation data for universities and institutes of technology is for 2010 – the most recent available data. All data presented in Tables 1 and 2 has been rounded and therefore the figures do not add to the totals in each respective table. The data in the above tables does not include education provision from private, independent third level colleges and professional institutes (but is detailed in Chapter 9).

Levels 1 and 2: FETAC made the first awards at these levels in 2008; in 2011, there were 800 awards, an increase on the 450 awards made in 2010.

Level 3: There were 60,430 awards made at level 3, the vast majority of which were Junior Certificates (57,000 awards). The number of Junior Certificate sits grew by 2% when compared to 2010. The remaining level 3 awards were made by FETAC, mostly for general programmes.

Levels 4 and 5: More than 82,000 awards were made in 2011. Of these, 57,500 awards were for the Leaving Certificate (spanning levels 4-5 on the NFQ) which is a 1% fall since 2010. The remaining awards at these levels were made up of FETAC major awards, most of which were at level 5 and typically for courses in health and welfare (childcare, healthcare support) or social science, business and law. There was a 14% rise in level 5 FETAC major awards when compared to 2010; while there were increases in all disciplines, the largest increase in absolute terms was for health and welfare courses (+1,380 awards). At less than 1,200, the number level 4 FETAC major awards fell slightly year-on-year (by 200 awards); almost half of level 4 FETAC major awards were in the field of core skills, languages and general studies.

Level 6: Awards at this level reached more than 13,100 - a rise of 22% on the preceding year; more than two thirds of awards were made in the further education and training sector (FETAC major awards), 21% in IoTs and the remaining 11% in universities; approximately one third of level 6 awards were in the field of engineering, manufacturing and construction (including craft awards).

Level 7: There were more than 9,100 level 7 awards which is a 5% increase on the preceding year. Almost 80% of these awards were in the IoT sector with the remainder in universities; social science, business and law accounted for 27% of all level 7 awards made with a further 24% in the field of engineering, manufacturing and construction.

Level 8: There was a 4% increase in the number of awards at this level, reaching approximately 26,800 awards; at 8,130 awards, social science, business and law had the highest number of level 8 awards, followed by humanities and arts (5,020 awards).

Levels 9 and 10: Postgraduate awards reached more than 18,100, representing a 13% rise since the previous year; more than one half (57%) of all level 9/10 awards were for master degrees, 36% were for postgraduate certs/diplomas with the remaining 7% at doctoral level; postgraduate awards were made mostly in the field of social science, business and law (mostly at masters 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 over 64,000 but this figure is likely to increase further due to the sustained high number of births in recent years. At second level, first year enrolments have been increasing steadily since 2007, reaching almost 61,000 in 2011. As the inflows into primary level continue to increase, this will also impact on the second level system in the medium term. The Department of Education and Skills (DES) projects that, even if large-scale emigration and a fall in fertility rates were to occur, the total number of primary and second level school enrolments will continue to grow until at least 2016; however, even with a slow economic recovery and a slight decline in fertility rates, enrolments are projected to increase until 2018 (primary level) and 2024 (second level). This growth in primary and post-primary enrolments will lead to rises in the number of Junior and Leaving Certificate candidates in the coming years.

Further Education and Training (FET)

Two 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 increased between 2007 and 2011, with the DES maintaining its 2012 provision for PLC places at 2011 levels. The number of new registrations for FÁS apprenticeships (for selected trades) is expected to be between 1,090-1,300 annually between 2012 and 2015, remaining well below peak levels observed prior to the economic downturn.

Higher Education and Training

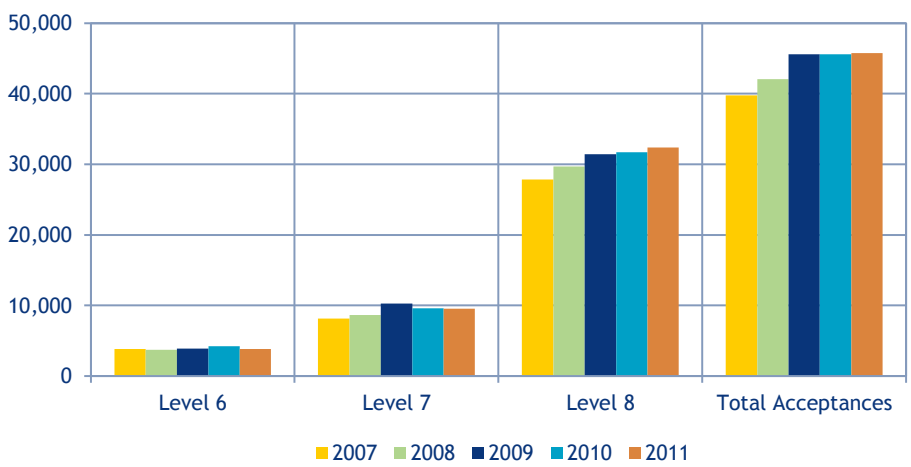
Between 2011 and 2014, the DES expects that the total number of full-time students enrolled in higher education (at undergraduate or postgraduate level) will continue to grow due to increased numbers in the relevant age cohort as well as increases in the progression rates to higher education[2].

Figure 1 shows the number of CAO acceptances by NFQ level for the period 2007-2011. Almost 45,800 students accepted a place in higher education in 2011 – with little change in overall numbers since 2009. Rising participation rates in higher education combined with an increased number of

[2] 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.

Leaving Certificate sits should ensure sustained high levels of CAO acceptance numbers (and subsequently graduate output) in the coming years.

Figure 1 CAO Acceptances 2007-2011



Source: CAO

Focus on Science, Technology, Engineering and Maths (STEM) Skills

This section focuses on the current and future trends affecting the supply of skills to the technology sector by looking at the education outflows from science, computing and engineering disciplines.

Entry to science and technology-related courses in Irish higher education often requires minimum competencies in mathematics. Table 3 shows that of the 51,991 mathematics candidates in the 2011 Leaving Certificate (all levels), 47,698 (92%) achieved at least a D grade. Higher level candidates accounted for 16% of all mathematics sits in 2011.

Table 3 Number and Share of Students with ≥D grades in Leaving Certificate Mathematics by Level, 2011

Mathematics Level	% of Total Sits	Number of Mathematics Candidates	Number of Students with ≥ D	% of Students with ≥ D
Higher	16%	8,237	7,982	97%
Ordinary	72%	37,903	33,795	89%
Foundation	12%	6,249	5,921	95%
Total	100%	51,991	47,698	92%

Source: State Examinations Commission

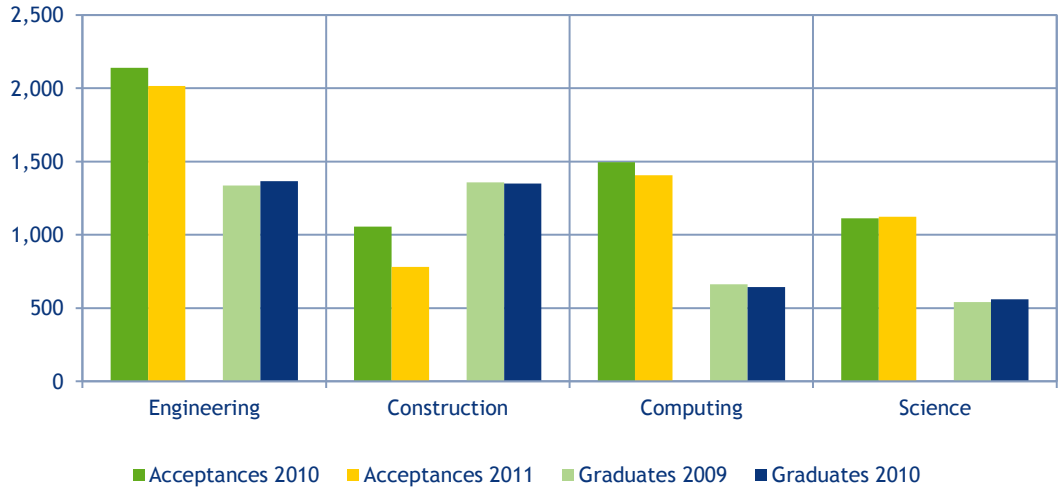
Higher Education

Undergraduate (NFQ 6-8)

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

- **Engineering**: at levels 7/6, CAO acceptances decreased between 2010 and 2011 although output remained at a similar level; at level 8, however, there was a 13% increase in the number of graduates (+13%); the growth in CAO acceptances at level 8 should ensure a continuation of this trend in the medium term.
- **Construction**: level 7/6 graduate output from construction courses remained stable in 2010 but the significant drop in CAO acceptances suggests that output will decline at this level in the short-medium term; at level 8, the increase in construction graduates which occurred between 2009 and 2010 (many students would have entered these courses prior to the economic downturn in 2006 or 2007) is unlikely to continue, given the sharp decline in level 8 acceptances between 2010 and 2011.
- **Computing**: while there were slight declines in the inflows and outflows at level 7/6, growth in level 8 computing graduate output is expected to continue in the medium term, given the 19% increase in CAO acceptances in 2011, as well as 2010 and 2009[3].
- **Science**: while CAO acceptances and graduate output at level 7/6 remained broadly stable, graduate output at level 8 is likely to increase in the medium term due to the 4% increase in CAO acceptances observed between 2010 and 2011.

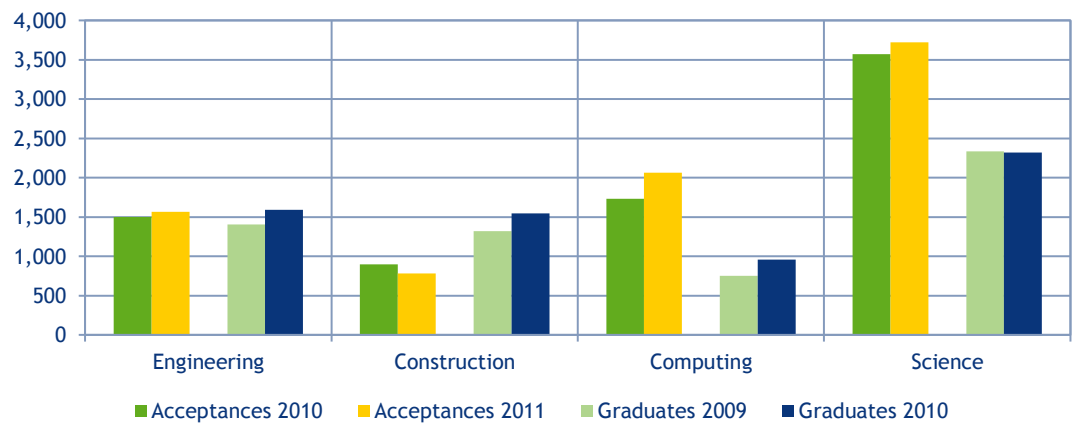
Figure 2 Level 7/6 Science & Technology CAO Acceptances and Graduate Output



Source: CAO; HEA

[3] Continued growth in the number of computing graduates is also expected in the medium-to-long term as outlined in the Government's ICT Action Plan which aims to increase the annual output from honours degree ICT undergraduate programmes to 2,000 graduates by 2018.

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

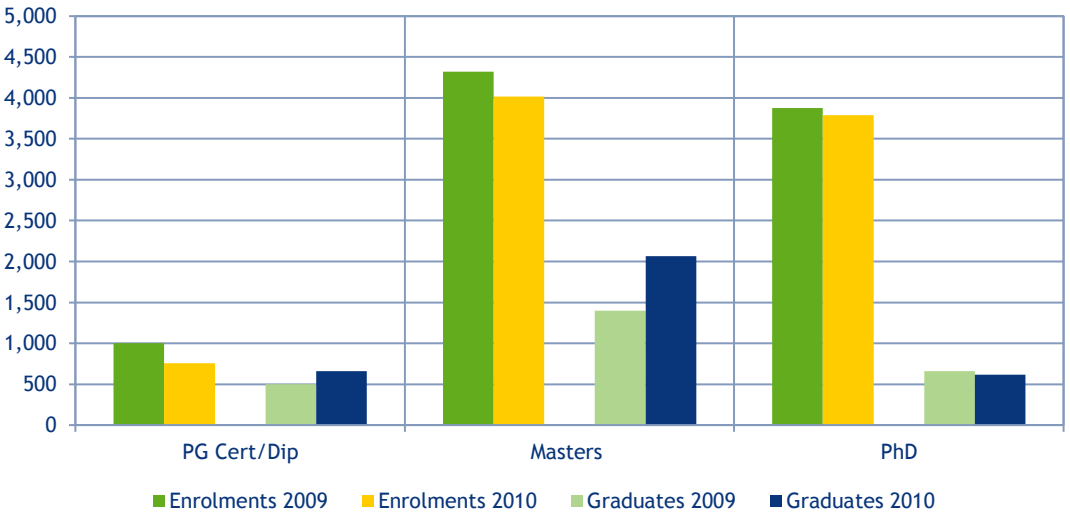


Source: CAO; HEA

Postgraduate (NFQ 9-10)

Figure 4 shows the numbers of enrolments and graduations from postgraduate certs/diplomas, master degree and PhD programmes in 2009 and 2010.

Figure 4 Level 9/10 Science & Technology Enrolments and Graduate Output



Source: HEA

- Postgraduate Certs/Diplomas: although the number of graduates in science and technology related areas at this level increased between 2009 and 2010, a reverse is likely in the short-term due to the decline in the number of enrolments; there were declines for each of the science and technology subject areas.

- Masters: science and technology enrolments declined by 7% making it unlikely that the 48% increase in graduate output will continue in the short-term; there were declines in enrolments across all subject areas except science, which increased from 1,111 in 2009 to 1,486 in 2010.
- PhD: for the first time in recent years, graduate output at this level declined slightly between 2009 and 2010; declines in enrolments between 2009 and 2010 (although there were increases in preceding years) mean that significant growth is unlikely at this level in the short-term.

It should be borne in mind that the recent Springboard programme[4] is likely to boost output in STEM subjects. There were almost 6,000 places offered to unemployed persons in higher education programmes leading to awards across levels 6-9 on the NFQ. These programmes are in areas of identified skills needs including among others the ICT, medical devices, green economy, bio-pharmachem, and food and beverage fields. However, the number of enrolments and graduations from these courses will not appear in the data until the 2011/2012 academic year for enrolment data and from 2012 for graduation data.

[4] The Springboard programme was launched as part of the Government's Jobs Initiative in May 2011. Of the 5,875 higher education places on offer to eligible unemployed persons, 35% were in ICT, 25% in business/management, 12% in the green economy,12% in medical devices, 7% in bio-pharmachem, 5% in food and beverage, and 3% in international financial services. By December 2011, there were approximately 4,600 students enrolled on these programmes, with the first graduates expected to emerge by mid-2012. Almost one third of places on offer were at NFQ level 8, 26% were at level 7, 23% at level 6 and 20% at level 9. (HEA: Springboard 2011 First-Stage Evaluation (February 2012).)
Springboard 2012 makes provision for a further 6,021 places, of which 2,218 places will be in ICT-related programmes.

Chapter 1 Introduction

1.1 Description

This chapter outlines the Irish education system. While the focus is on the formal education system, there are also significant education routes occurring alongside the formal education system (e.g. mature entry).

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.

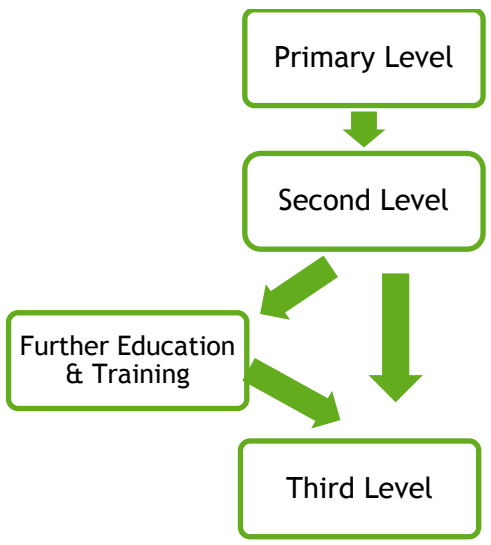
Second level education usually lasts five to six years and is divided into the junior cycle (three years duration) and the senior cycle (two years). Some pupils also undertake the Transition Year Programme – a one year programme which aims to act as a bridge between the junior and senior cycles. Secondary 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[5].

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, a university (including colleges of education), or an independent, private third level college. 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 (although some degrees such as medical degrees may require five years). 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.

[5] 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

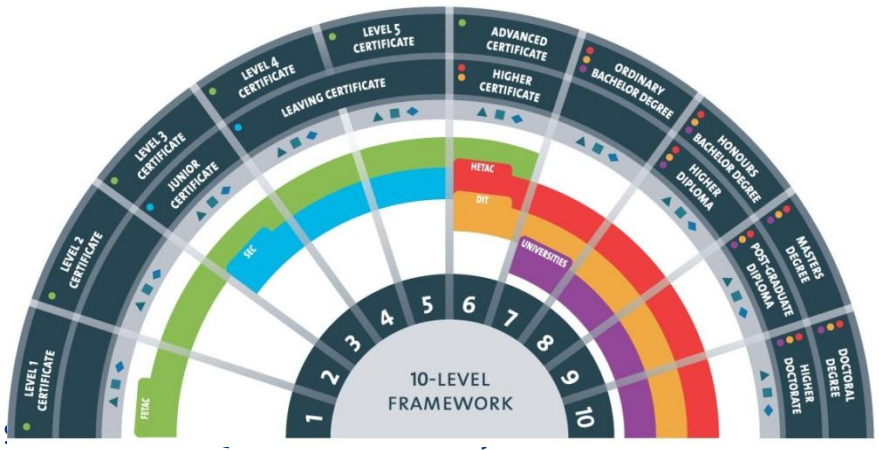
The National Framework of Qualifications (NFQ) was introduced in 2003 and implemented thereafter following an extensive consultation process with all of the national key stakeholders. Based on learners' standards of knowledge, skill and competence, the Framework facilitates the development, recognition 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[6].

- 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.

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

Figure 1.2 National Framework of Qualifications



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, City & Guilds, ITEC) 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 early school leavers, the education attainment of those in the workforce, and data on adults' participation in lifelong learning
- 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
- 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 graduations
- The Higher Education and Training Awards Council (HETAC), individual professional institutes and the National Qualifications Authority of Ireland 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
- International higher education data was obtained from the OECD education online database.

This report focuses on the most recent education data available; 2011 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 2010 (2009 for OECD data). Data from private/independent providers of professional and higher education was available for 2010 or 2011, 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

- There were 73,724 births recorded in Ireland in 2010 – a decline of approximately 1,000 on the 2009 figure, but well above the figures observed at the beginning of the century
- Inflows to the education and training system continues to grow across almost all sectors of the education and training system (except further education and training)
- Following a 1% decline in junior infant enrolments between 2008 and 2009, 2010 saw a halt in this decline and at 63,784. Given the sharp rise in the number of births in 2007, this number is likely to grow further in the short-medium term
- In September 2011, at almost 61,000 enrolments, the number of Junior Cycle entrants reached its highest point since 2000
- There was a decline in the inflows to selected further education and training pathways (PLC courses, FÁS Community Training courses and FÁS apprenticeship training) in 2011
- Between 2009 and 2010, the number of new entrants to higher education remained stable at approximately 41,000; while the vast majority (71%) were aged 19 or less, the numbers of mature students (i.e. those aged 23 or more) grew by 10% year-on-year

2.1 Introduction

This chapter begins with an outline of the demographic information relevant to the education system at key stages. Trends in demographic data are important to consider since the size of the younger cohorts in the population, 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 rose from 7,800 in April 2009 to 34,100 in April 2011 – amongst the highest since 1989[7]. The effects of migration on school enrolments, however, are expected to be mitigated by the strong natural increase in the population: since 2007, the estimated population aged 0-4 years grew from approximately 312,300 to 367,000 between April 2007 and April 2011, an increase of almost 18% (or an additional 55,000 children). There were also increases, albeit on a smaller scale, in the numbers of 5-9-year olds and 10-14 year-olds in the State.

The first section examines the number of births in Ireland over the 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.

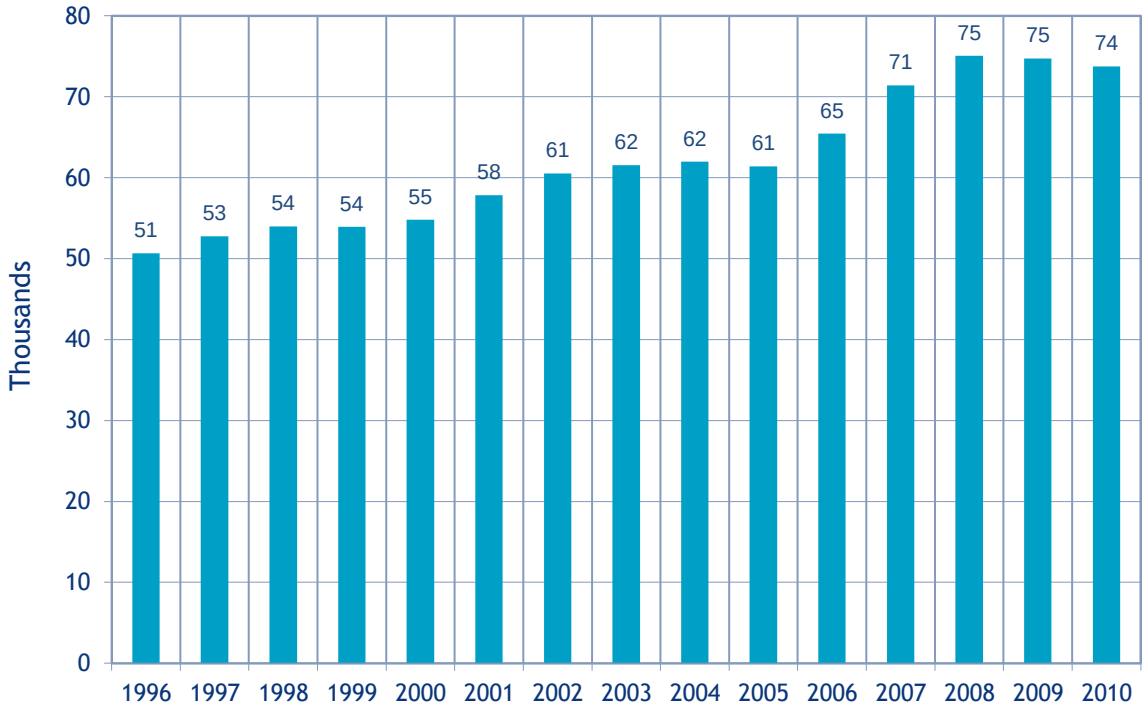
[7] CSO *Population and Migration Estimates April 2011* (September 2011)

2.2 Births

Figure 2.1 shows the total number of births in Ireland for the period 1996-2010. 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 peaked in 2008 at approximately 75,000, amounting to almost a 50% increase when compared to 1996. While the number of births has fallen since then, the numbers in both 2009 (74,728) and 2010 (73,728) remained above that recorded in 2007 (71,389 births) and well above the 65,425 recorded in 2006. Given that on average children enter the primary school education system at the age of 4 or 5 years, the particularly sharp increase observed between 2006 and 2007, and the sustained higher number of births since then, is expected to have impacted on the number of junior infant enrolments since September 2011, and will continue to do so in the medium term.

Figure 2.1 Number of Births in Ireland, 1996-2010



Source: CSO

Note: the data for 2008 was revised by the CSO in 2012 and therefore is not comparable with the data published in previous editions of this report.

2.3 Primary and Post-Primary

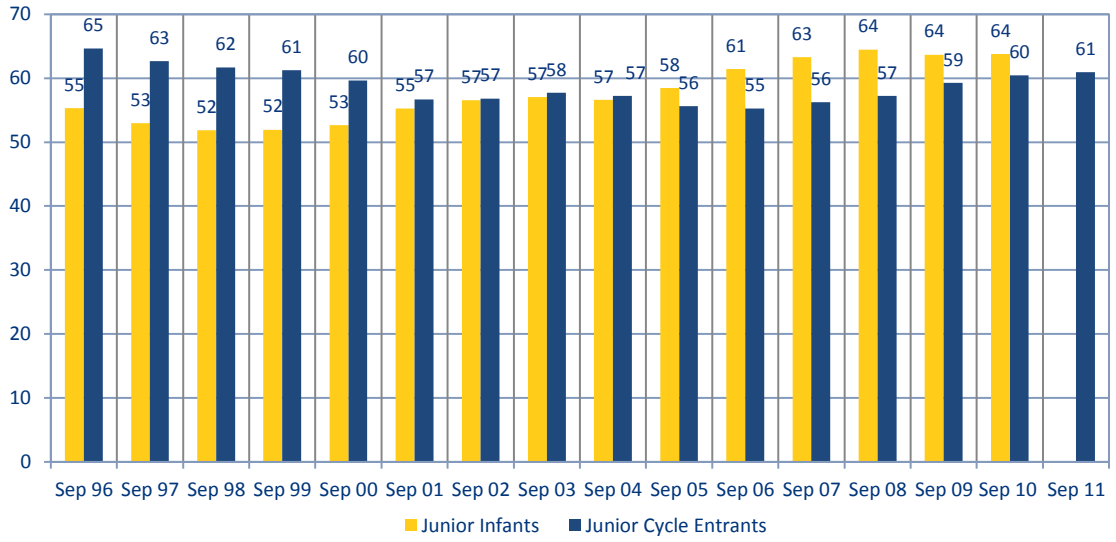
2.3.1 Inflows

The number of enrolments in junior infants at primary level increased annually between September 2005 and 2008 (Figure 2.2); there was a 1% decline between 2008 and 2009, but at 63,784 (100 more enrolments than in the preceding year), this decline had already halted by 2010 and, due to the sharp increase in the number of births that occurred between 2006 and 2008 (Figure 2.1), it is likely that the number of junior infant enrolments will grow considerably in the short-medium term.

The number of pupils entering the first year of the Junior Cycle over the period 1996-2011 is also shown in Figure 2.2. In September 2011, at almost 61,000 enrolments, the number of Junior Cycle entrants reached its highest point since 2000. With the exception of a small increase in 2003, the number of Junior Cycle entrants was largely in decline until 2006. 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.

The Department of Education and Skills (DES) projects that, even if large-scale emigration and a fall in fertility rates were to occur, the total number of primary and second level school enrolments will continue to grow until at least 2016; however, with a slow economic recovery and a slight decline in fertility rates, enrolments are projected to increase until 2018 (primary level) and 2024 (second level)[8].

Figure 2.2 Junior Infant & Junior Cycle Enrolments Primary & Post-Primary Schools (000s)



Source: DES

*The latest available data for junior infant enrolments is 2010; junior cycle entrants is for 2011.

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

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 ESRI/DES's most recent School Leavers' Survey Report was published in 2009 and 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. (It should be noted that there are also other FET routes, including Fáilte Ireland, Teagasc, or Bord Iascaigh Mhara training, among others).

Table 2.1 shows the number of new entrants to higher education by age for the period 2009/10 to 2010/11. In 2010/11, the number of new entrants to full-time, undergraduate higher education in Ireland totalled 40,748, almost the same as in 2009/2010. While the vast majority (71%) were aged 19 or less, the numbers of mature students (i.e. those aged 23 or more) grew by 10% year-on-year, amounting to an additional 600 mature students when compared to the previous year. Mature students made up approximately 16% of all new entrants in 2010/2011, up from 14% in 2009/10 and 12% in 2008/09.

Table 2.1 New Entrants to Full-time Undergraduate Higher Education by Age, 2009/10 - 2010/11

Age	2009/10	2010/11	% Difference 09/10-10/11
19 and under	29,756	28,745	-3%
20-22	5,032	5,356	6%
23+	6,027	6,647	10%
Total	40,815	40,748	0%

Source: HEA

Table 2.2 shows the numbers entering selected further education and training pathways over the period 2007 to 2011 (FÁS (selected courses), Youthreach programmes and Post Leaving Certificate (PLC) courses)[9]. 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.

With the exception of PLC 1st year enrolments, the inflows into the FET pathways considered here declined between 2007 and 2011. The decline was sharpest for new registrations for FÁS apprenticeships, which, due to the downturn in the construction industry, dropped from almost 6,800 to approximately 1,300 over the five-year period[10]. The number of new starts on FÁS Community Training also declined – by approximately 700, and reached its lowest level over the five-year period in 2011; this was a result of policy changes where clients receive greater supports

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

[10] 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.

and longer training durations, thereby reducing capacity in inflows. The number of first year enrolments for PLC courses, on the other hand, increased by more than a quarter, going from almost 24,600 to approximately 31,300 over the period 2007-2011. Data for Youthreach programme enrolments for the period 2007-2010 refers to the total number of enrolments at foundation level; however, as the distinction between the two levels was discontinued in 2010, data for 2010 and 2011 refers only the number of new entrants to the programme. There were over 1,300 Youthreach new entrants in 2011.

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

Year	PLC (1st Year Enrolments)	Youthreach (Foundation Level Enrolments/New entrants*)	FÁS Community Training (New Starts)[11]	FÁS Apprenticeships (New Registrations)
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	1,245	2,417	1,197
2011	31,286	1,300	1,910	1,304

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

*Youthreach new entrant data is from 2011; previous years' data refers to foundation level enrolments

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 is maintaining its 2012 provision for PLC places at 2011 levels. Apprenticeship forecasts for selected trades[12] provide estimates of FÁS apprenticeship recruitment[13]. The number of new apprenticeship registrations is expected to be between 1,090 and 1,300 annually between 2012 and 2015, remaining well below the peak of 7,467[14].

DES (2011) projections of the number of full-time students enrolled in higher education shows that the numbers are expected to continue to grow in the medium to long term, assuming there will be sufficient capacity within the higher education and training system to accommodate increased levels of demand for places.

[11] 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 2011, compared to 12% for FÁS Specialist training providers, and 14% for FÁS traineeships).
[12] 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).
[13] Forecasts of Apprentice Intake into Selected Construction and Non-Construction Trades to 2014 (McGrath & Shally (FÁS) 2011).
[14] 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 almost 57,000 in 2011, the number of Junior Certificate sits grew by approximately 2% compared to 2010
- 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%[15].
- With the exception of mathematics and Irish, the majority of candidates sat the higher level paper in all subjects
- The previously observed trend towards increased participation in higher level for Junior Certificate subjects has continued, with the share of students sitting the higher level paper in most of the top-ten Junior Certificate subjects increasing by at least two percentage points between 2007 and 2011
- Mathematics: despite a four percentage point increase between 2007 and 2011, at 46%, mathematics has the smallest higher level participation rate of all Junior Certificate subjects
- Science: the five year period 2007-2011 saw increases in the
    - share of students taking science for the Junior Certificate (up from 88% to 89%)
    - share of science students taking the higher level paper
    - share of candidates obtaining at least a pass grade at both higher and ordinary level
- With the exception of ordinary level history and geography, females outperformed males in all selected subjects; the gender gap was widest for languages, art, craft and design and religious education
- International Comparison: in PISA 2009, the performance of Ireland's 15-year-olds was above the OECD average on the scientific literacy assessment, but below average for reading and mathematical literacy; nonetheless, on digital literacy, Ireland was ranked fourth out of 19 countries, with scores considerably above the OECD average.
- Early school leavers: the share of early school leavers in Ireland declined to 9% in quarter 2 2011, compared to 12% in quarter 2 2007; males are more likely to be early school leavers than females (11% compared to 7% for females in quarter 2 2011)

3.1 Introduction

The focus of this chapter is on the Junior Certificate examination which has been placed at level 3 on the National Framework of Qualifications. We begin with a brief description of the Junior Certificate programme. Candidate numbers, subject choices and achievements are then outlined, followed by a summary of how Ireland's 15-year-olds perform internationally at this level (based on PISA results). Using CSO data from the Quarterly National Household Survey (QNHS), the final section of this chapter looks at the share of young adults in the population who are estimated to have ended their full-time education at this level.

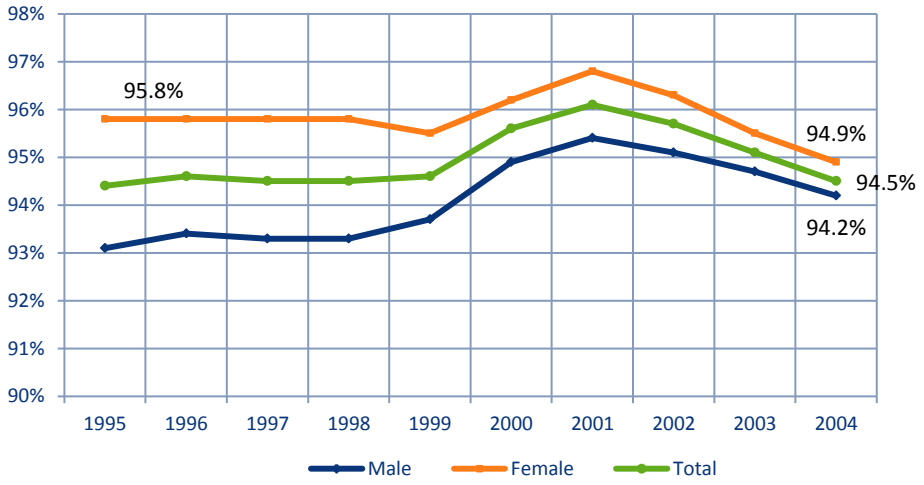
[15] These rates are unadjusted for those transferring to non-aided second level schools or other destinations.

3.2 Junior Certificate: Candidates and Examination

Students usually sit the Junior Certificate examination on completion of the Junior Cycle which forms the first three years of second level education. Candidates are typically aged 15 years. In 2011, the Department of Education and Skills estimated that 94.5% of the entrants to the Junior Cycle in 2004 went on to sit the Junior Certificate examination (Figure 3.1)[16]. Females, with a retention rate of 94.9%, were slightly more likely than males (94.2% retention rate) to sit the examination. These rates were lower than those observed previously but may be due to methodological issues rather than any substantial decline in the retention rate[17].

Despite the fact that females are more likely than males to sit the Junior Certificate examination, the gender gap has narrowed by approximately two percentage points since 1995; the retention rate for the 1995 cohort of female Junior Cycle entrants was almost 96%, compared to just over 93% for males. However, by 2004, the retention rates for males and females were almost similar, with less than one percentage point in the difference (94.9% versus 94.2%).

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



Source: Retention Rates of Pupils in Second Level Schools 1991 to 2004 Entry Cohorts (DES 2011)

Candidature for the Junior Certificate examination is not restricted to students enrolled in second level schools. A candidate following an approved course of study outside the State or who is attending an approved course of study organised under the Vocational Training Opportunities Scheme, Adult Literacy and Community Education Schemes and the Department of Social Protection second-level scheme for the unemployed may also sit the exams. In 2011, a total of 1,070 Junior Certificate candidates were re-entrants to education, sitting the examination through education

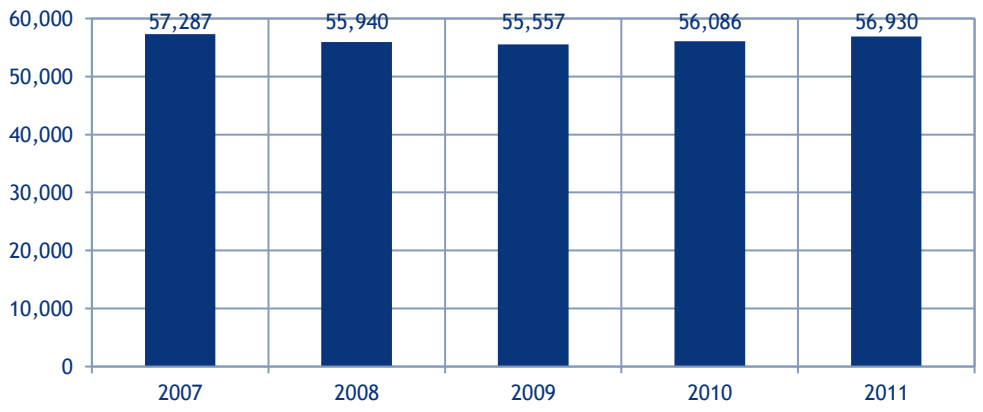
[16] Junior Certificate retention rates are unadjusted for those transferring to non-aided second level schools and other destinations.
[17] The DES found that of all those who entered the Junior Cycle in 2004, over 1,000 students who were present in the Senior Cycle had not sat the Junior Certificate. However, the presence of these students in the Senior Cycle indicates that they may indeed have sat the examination but were not captured in the data for methodological reasons.

schemes such as VTOS and BTEI. While this figure is slightly lower than in 2010 (when there were 1,135 re-entrants to education, the share of re-entrants among Junior Certificate candidates has continued to remain at approximately 2% of the total.

The number of Junior Certificate sits over the period 2007-2011 is shown in Figure 3.2. Following steady declines between 2007 and 2009, the number of Junior Certificate sits began to rise again, by 1% in 2010 and a further 2% in 2011. These increases are in part a reflection of the increased number of entrants to second level schools observed since September 2007. Nonetheless, the total number of Junior Certificate sits in 2011 was almost 1% lower than in 2007.

With a 51% share (29,252 sits), males slightly outnumbered females in the 2011 examination; females, with 27,678 candidates, made up 49%.

Figure 3.2 Junior Certificate Sits 2007-2011



Source: SEC

*Data for 2011 is provisional only

3.3 Junior Certificate Subject Choice and Levels

The Junior Certificate examination is available in approximately 25 subjects. Most are offered at higher and ordinary level, with English, mathematics and Irish also offered at foundation level. Civic, social and political education (CSPE) is available at common level only. Candidates normally take between eight and ten subjects.

3.3.1 Top-Ten Subject Choice – Total Sits

Table 3.1 shows the top ten subjects in the 2007 and 2011 Junior Certificate examinations; the take-up rate for each subject is also provided. Each year, almost all candidates sat the Junior Certificate examination in English, mathematics and civic, social and political education (CSPE), due primarily 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 between 2007 and 2011 include:

- A decline of in excess of 1,000 sits in each language subject (French, Irish, English) and business studies; there was also a slightly smaller decline in the number of mathematics sits (-500 students); these declines are partly a reflection of the 1% decline in the total number of Junior Certificate sits observed between 2007 and 2011
- A slight rise in both absolute numbers and the take-up rate for science; with almost an additional 500 sits in 2011, the take-up rate for science rose from 88% to 89%
- A sharp increase in the number of sits for religious education, which went from almost 25,000 to almost 27,000 – a rise of 9%; as a result, the take-up rate also rose, continuing the steady 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, 2007 & 2011*

Subject	2007 Sits	2007 Take-up	2011 Sits	2011 Take-up
English	57,674	99%	56,205	99%
Mathematics	56,539	99%	56,025	98%
C.S.P.E	55,854	98%	55,540	98%
Geography	51,984	91%	52,104	92%
History	51,311	90%	51,342	90%
Science	50,106	88%	50,559	89%
Irish	49,837	87%	48,349	85%
French	35,039	61%	33,460	59%
Business studies	33,667	59%	32,554	57%
Religious education	24,602	43%	26,844	47%

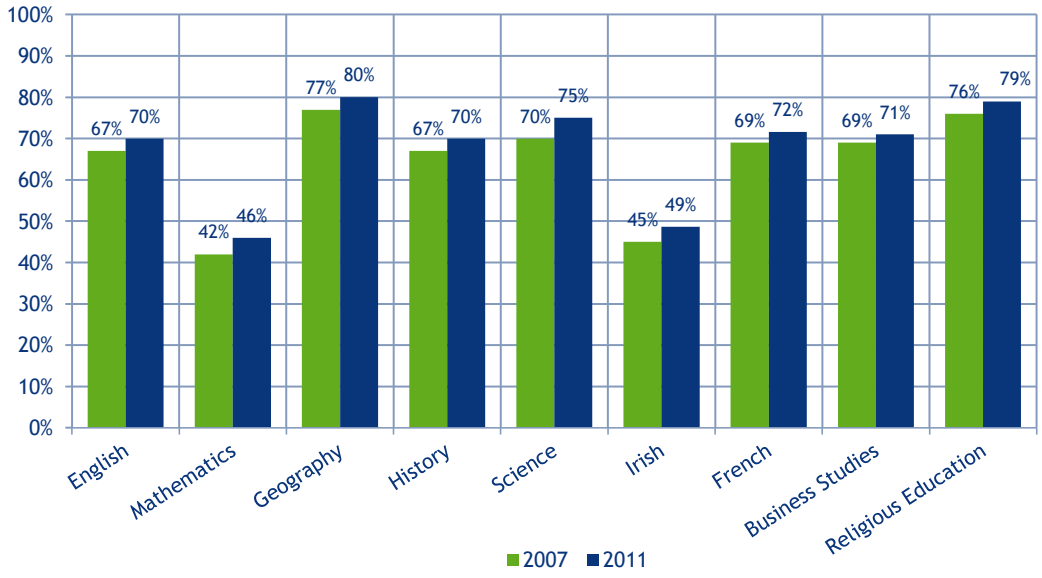
Source: SEC

*Data for 2011 is provisional

3.3.2 Top-Ten Subject Choice - higher level sits

The higher level participation rates for the most popular Junior Certificate subjects in 2007 and 2011 are presented in Figure 3.3. With the exception of mathematics and Irish, approximately three quarters of all sits in the most popular Junior Certificate subjects were at higher level: between 70% and 80% of students took the higher level papers in 2011. On the other hand, higher level sits accounted for less than half of all those taking mathematics and Irish, which had higher level participation rates of 46% and 49% respectively. Nonetheless, as with all subjects presented in Figure 3.3, the higher level participation rate for mathematics and Irish increased over the five year period 2007-2001.

Figure 3.3 Junior Certificate Higher Level Participation Rates 2007 & 2011



Source: SEC

*The numbers for science in 2007 include the Revised Science syllabus and the older 1989 science syllabus

3.3.3 English, Mathematics and Scientific Literacy

Basic skills in English, mathematics and scientific literacy are the foundation of basic education and lifelong learning and are essential for individuals to work and participate in the economy. Table 3.2 provides details of students' achievements in the English, mathematics and science Junior Certificate examination. The data shows that:

- in 2011, the vast majority of candidates (well over 90%) in these subjects obtained at least a grade D, although higher level students were more likely than ordinary level students to do so
- at 99%, the pass rate was highest for students sitting higher level science and English, followed by ordinary level English (98%)
- at 93%, the pass rate was lowest for ordinary level mathematics
- there has been almost no change in the pass rates over the five year period, with the exception of a one percentage point increase for higher level maths and higher and ordinary level science
- not only were students increasingly likely to sit science,they were also more likely to obtain a pass grade at both higher and ordinary level than they were five years previously (the share of students gaining a D grade or more went from 95% to 96% at ordinary level and from 98% to 99% at higher level)

Table 3.2 Junior Cert Student Achievement in English, Maths and Science, 2007-2011

Subject	2007≥ D	2008 ≥ D	2009 ≥ D	2010 ≥ D	2011 ≥ D
Higher Level					
English	99%	99%	98%	99%	99%
Mathematics	95%	97%	96%	96%	96%
Science	98%	99%	98%	99%	99%
Ordinary Level					
English	98%	98%	98%	98%	98%
Mathematics	93%	93%	93%	93%	93%
Science	95%	96%	96%	96%	96%

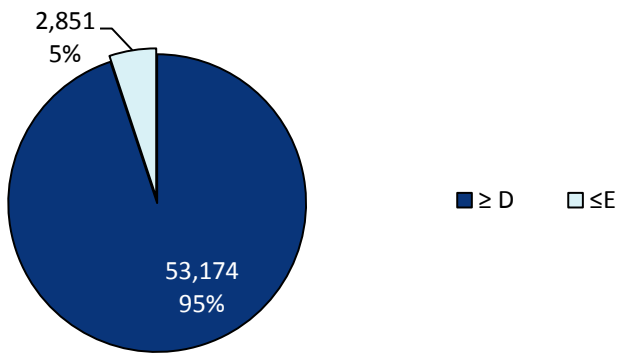
Source: SEC

* Data for science 2007 includes both the 1989 science syllabus and the Revised Syllabus check
Data for 2011 is provisional only

In addition, of the 4,407 students who sat foundation level mathematics, 4,284 students (or 97%) obtained at least a grade D in 2011.

Figure 3.4 compares the combined number of mathematics students obtaining a grade D or more with those obtaining a grade E or below in 2011. Of the total number of students sitting mathematics in the Junior Certificate (all levels), approximately 53,200 (95%) obtained a pass grade at either ordinary, higher or foundation level; this implies that more than 2,850 obtained a grade E or less in mathematics in 2011.

Figure 3.4 Number and Share of Junior Certificate Maths Candidates by Grade Category (≥D or ≤E), 2011



3.3.4 Gender Distribution by Subject Choice 2011

Table 3.3 sets out the gender distribution of sits in the top ten Junior Certificate subjects (higher and ordinary level) in 2011. At higher level, the gender distribution was balanced for mathematics,

geography, history and business studies with males and females taking these subjects in almost equal numbers. With the exception of science, where males make up 51% of the candidates, females dominate in all other subjects at higher level; males, however, were particularly out-numbered in art, craft and design where they made up just one third of the candidates.

At ordinary level, in contrast, the majority of candidates in each of the subjects in Table 3.3 were male; male dominance was especially strong in English (60% male) and science (59% male). The subjects with the highest shares of females were maths and history where females made up almost half (48%) of the candidates.

Table 3.3 Gender Breakdown of Higher and Ordinary Level Subjects 2011 updated April 13th 2012

	Higher Level				Ordinary level			
	Total Male	% Male	Total Female	% Female	Total Male	% Male	Total Female	% Female
English	18,497	47%	20,596	53%	9,305	60%	6,083	40%
Maths	12,701	50%	12,853	50%	13,535	52%	12,529	48%
Geography	21,079	50%	20,759	50%	5,493	54%	4,773	46%
History	18,105	50%	17,821	50%	7,957	52%	7,459	48%
Science	19,263	51%	18,811	49%	7,307	59%	5,178	41%
Irish	10,220	43%	13,711	57%	12,652	56%	9,836	44%
French	10,799	45%	13,390	55%	5,299	57%	3,972	43%
Business Studies	11,602	50%	11,540	50%	5,002	53%	4,410	47%
Religious Education	9,585	45%	11,537	55%	3,266	57%	2,456	43%
Art, Craft, Design	4,866	33%	10,064	67%	3,293	53%	2,963	47%

Source: SEC

3.3.5 Gender Distribution of Junior Certificate Results

Tables 3.4 and 3.5 outline the achievements of males and females in terms of A, B and C grades in the most popular Junior Certificate subjects at higher and ordinary levels. At higher level, females outperformed males in each of the subjects presented in Table 3.4. With gaps of between ten and 13 percentage points, the largest gender gaps were observed for languages, religious education and art, craft and design, The smallest gender gaps were in geography and maths, where the difference was two and three percentage points respectively.

Table 3.4 Gender Differences in Achievement at Higher Level, Junior Certificate 2011

	Males ≥ C	% Males*	Females ≥ C	% Females*	Difference (Percentage point)
English	13,102	71%	17,232	84%	13
Maths	9,968	78%	10,385	81%	3
Geography	15,866	75%	15,916	77%	2
History	12,577	69%	13,527	76%	7
Science	14,824	77%	15,760	84%	7
Irish	7,631	75%	11,656	85%	10
French	6,857	63%	9,789	73%	10
Business Studies	8,935	77%	9,476	82%	5
Religious Education	7,686	80%	10,441	91%	11
Art, Craft, Design	3,841	79%	9,067	90%	11

Source: SEC

* % of all males/females sitting the subject at this level

At ordinary level, females again outperformed males in most selected subjects, except geography and history (Table 3.5). The gender gap was most pronounced for art, craft and design (10 point gap) and languages (between 9 and 12 percentage points for English, French and Irish). With percentage point gaps of just one and three, slightly more males achieved at least a C grade in geography and history.

Table 3.5 Gender Differences in Achievement at Ordinary Level, Junior Certificate 2011

	Males ≥ C	% Males*	Females ≥ C	% Females*	Difference (percentage point)
English	6,987	75%	5110	84%	9%
Maths	9,839	73%	9731	78%	5%
Geography	4,364	79%	3643	76%	-3%
History	6,096	77%	5653	76%	-1%
Science	5,670	78%	4140	80%	2%
Irish	9,095	72%	8267	84%	12%
French	3,041	57%	2709	68%	11%
Business Studies	3,656	73%	3603	82%	9%
Religious Education	2,588	79%	2107	86%	7%
Art, Craft, Design	2,302	70%	2373	80%	10%

Source: SEC

* % of all males/females sitting the subject at this level

3.4 Early School Leavers

On completion of the Junior Certificate, the majority of students progress to the senior cycle and sit the Leaving Certificate two-three years later (see DES Retention Rates in Chapter 4). Students who cease their education and training at this point are often referred to as early school leavers; the CSO (2011: 7) defines early school leavers as persons aged 18-24 years whose highest level of educational attainment is lower secondary or below and who have not received formal or informal education and training in the four weeks prior to the survey. This section looks at the share of young people in the population whose education and training ceased at Junior Certificate level or equivalent as reported by the CSO[18].

As shown in Table 3.6, 9% of all 18-24 year-olds had attained, at most, lower secondary education qualifications in 2011. This is the lowest share of early school leavers observed over the period April-June 2004- April-June 2011 and a four percentage point drop on the 13% share observed in 2006.

Males were more likely than females to be early school leavers each year. In April-June 2011, there was a four percentage point gap, with 7% of female 18-24 year-olds being early school leavers compared to 11% of males. Nonetheless, the gap has narrowed in recent years, with considerably larger gaps, of as much as seven percentage points, observed in April-June 2004-2008.

Table 3.6 Early school leavers as a percentage of 18-24 year-olds by gender, April-June 2004 – April-June 2011

	2004	2005	2006	2007	2008	2009	2010	2011
Male early school leavers	16%	15%	16%	15%	15%	13%	12%	11%
Female early school leavers	10%	9%	9%	8%	8%	7%	7%	7%
Total early school leavers	13%	12%	13%	12%	11%	10%	10%	9%

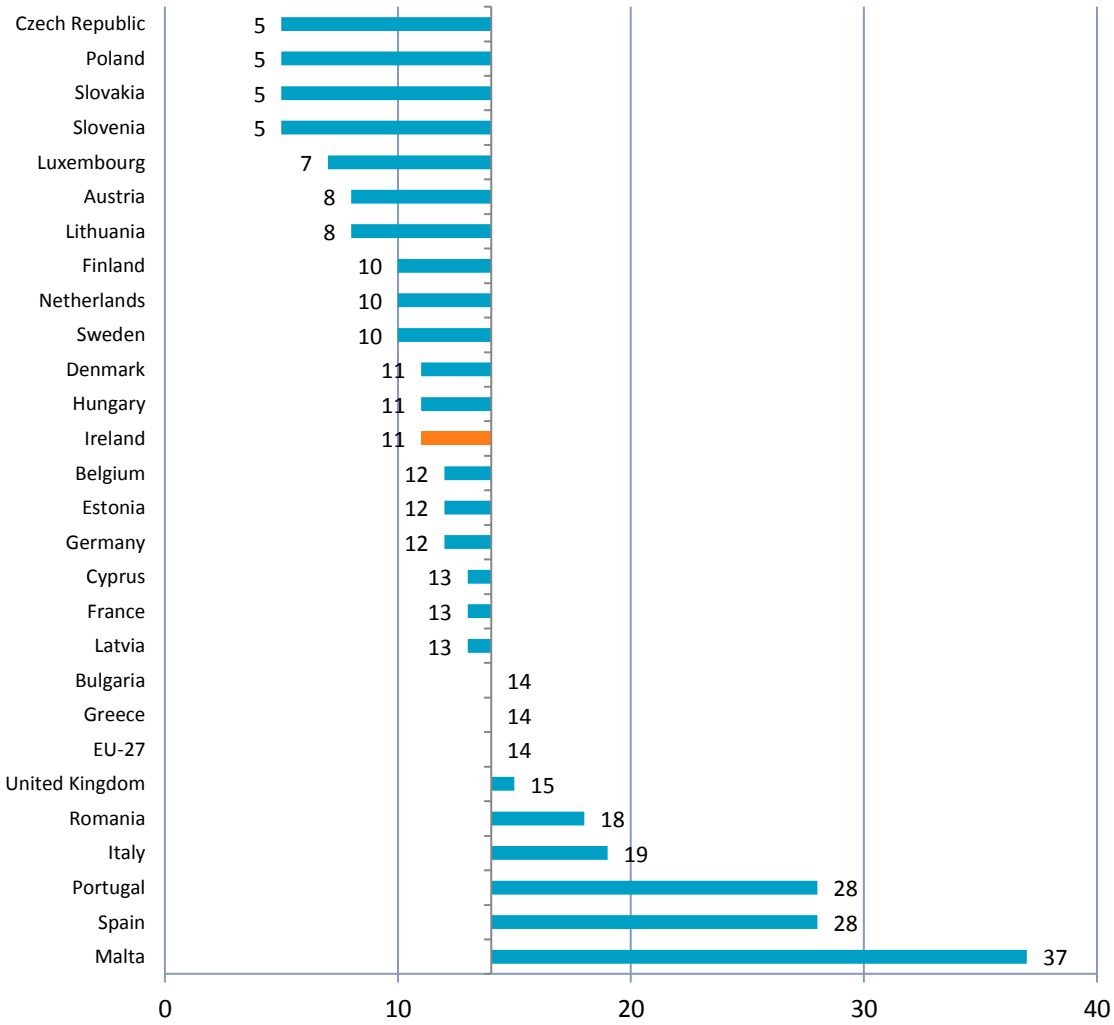
Source: CSO QNHS Educational Attainment Thematic Report (2011)

Figure 3.5 shows the share of early school leavers across EU countries in 2010, the latest year for which comparable data is available[19]. On average, the share of early school leavers across the EU was approximately 14%. At 11%, Ireland compares favourably with other EU countries in terms of its share of early school leavers, ranking 11th overall (jointly with Hungary and Denmark) out of 27 countries and ahead of countries such as the United Kingdom (15%), France (13%) and Germany (12%). Nonetheless, Ireland lags behind the top performing countries, several of whom have an early school leaver rate half that of Ireland (i.e. Poland, Czech Republic, Slovakia and Slovenia).

[18] QNHS Educational Attainment Thematic Report 2011 (2012)

[19] The figure for Ireland used in Figure 3.5 is based on an annual average for 2010 and so may differ slightly from the values in Table 3.6 above

Figure 3.5 Early school leavers as a percentage of 18-24 year olds in EU member states, 2010



Source: CSO (2011) & Eurostat

3.4 International Comparison: PISA Results 2009 & Digital Literacy Performance

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 fifth and most recent PISA cycle took place in March 2012; the results will be available in December 2013. Results from PISA studies serve as a useful indicator of how Irish 15-year-olds compare with their peers in international reading, mathematical and scientific literacy tests.

PISA 2009 results showed that Ireland's 15-year-olds scored below the OECD average in reading and mathematics, but above average in science. When compared to PISA 2006 results, there were declines in their overall ranking in reading and mathematics; however, Ireland climbed two places in science.

In addition to assessing literacy when reading printed texts, PISA 2009 also looked at the proficiency of 15-year-olds in gathering and processing information in reading digital material[20]; the findings from the analysis were published in mid -2011 and are summarised here. Ireland performed comparatively better on the digital reading assessment than on the print assessment: although Ireland's score in print reading was below the OECD average, its score in digital reading was significantly above the OECD average. Furthermore, of a total of 19 participating countries, only four (Korea, New Zealand, Australia and Japan) obtained mean scores that were significantly higher than Ireland's in the digital reading. In contrast, on the print reading assessment, six (out of the 19) had scores that were significantly higher than Ireland's.

Ireland's improved performance on the digital reading assessment may be due in part to a smaller share of students scoring at the lower end of the scale: just 12% of Irish 15-year-olds scored at the lowest levels of reading proficiency for digital material, compared to 17% on average across participating OECD and partner countries. (In contrast, on the print reading assessment, 17% of Irish 15-year-olds scored at the lowest levels of reading proficiency, a share similar to that of the OECD average).

[20] Educational Research Centre (2011). *Digital Reading Literacy in the OECD Programme for International Student Assessment (PISA 2009): Summary of Results for Ireland.* Available at http://www.erc.ie/documents/p09digital_reading_literacy_summary.pdf .

Chapter 4 Leaving Certificate (NFQ 4/5)

Key Points

- At more than 57,500 sits in 2011, the number of candidates was 1% lower than in 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[21]), compared to 84.8% 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)
- In 2011, there were 2,947 repeat Leaving Certificate candidates, representing a 4% increase since 2010 and an increase of almost three quarters (1,229 additional repeat candidates) on 2007.
- There was an increase in the higher level participation rate for all of the most popular subjects, except mathematics; mathematics had the lowest rate of higher level sits (16%) followed by Irish and French at 33% and 52% respectively
- Mathematics and Biology were the only science subjects in the top-ten in 2011
- The take-up rate for biology increased each year over the period 2007-2011, reaching 56% in 2011, resulting in approximately 4,600 additional sits in 2011 compared to 2007. In 2011, more than 9,500 students sat the Leaving Certificate in at least two science subjects (up 6% on 2010)
- At 1,262 sits in 2011, there was a five-fold increase in the number of people sitting non-curricular languages in the Leaving Certificate examination between 2007 and 2011.

4.1 Introduction

The focus of this chapter is on the supply of skills from persons completing the Leaving Certificate, which spans levels 4 and 5 on the National Framework of Qualifications. Following a brief description of the Leaving Certificate and the candidates that typically sit the examination, 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 is provided. Grades achievements for key subjects are also included. This chapter concludes with a short description of recent trends in the points achievements of Leaving Certificate candidates.

4.2 The Leaving Certificate – Examination and Candidates

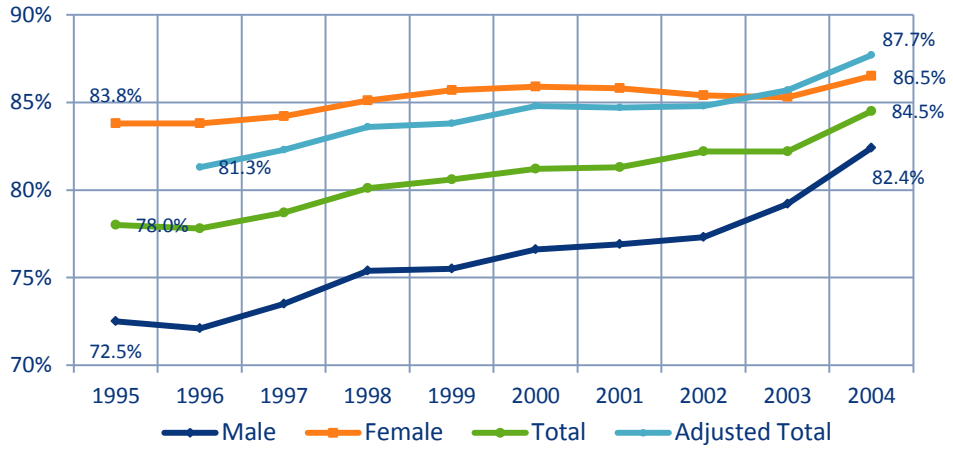
The Leaving Certificate examination is held at the end of the senior cycle, following five or six years of full-time education at second level. The majority of candidates are students in post-primary schools and are aged 16-18 years. The Leaving Certificate examination may also be taken by candidates studying outside the formal school system. In 2011, 1,036 candidates were re-entrants

[21] 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.

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 almost a 20% drop on the number in 2010.

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 began the Junior Cycle in 2001, 87.7% sat 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)[22]. Overall, second level students were increasingly likely to sit the Leaving Certificate: the retention rate rose by more than six percentage points between the 1996 and 2004 cohorts, going from 81.3% to 87.7%. With a retention rate of 86.5%, females were more likely than males to sit the examination (82.4%)[23]. While the retention rates for both sexes increased compared to the 1995 cohort, the rise in males was greater (going from 72.5% to 82.4%) than for females (which went from 83.8% to 86.5%). This has resulted in a narrowing of the gender gap over the period 1995-2004, with the 11.3 percentage point gap observed in 1995 falling to 4.1 percentage points in 2004.

Figure 4.1 Leaving Cert Retention Rates, 1995-2004



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

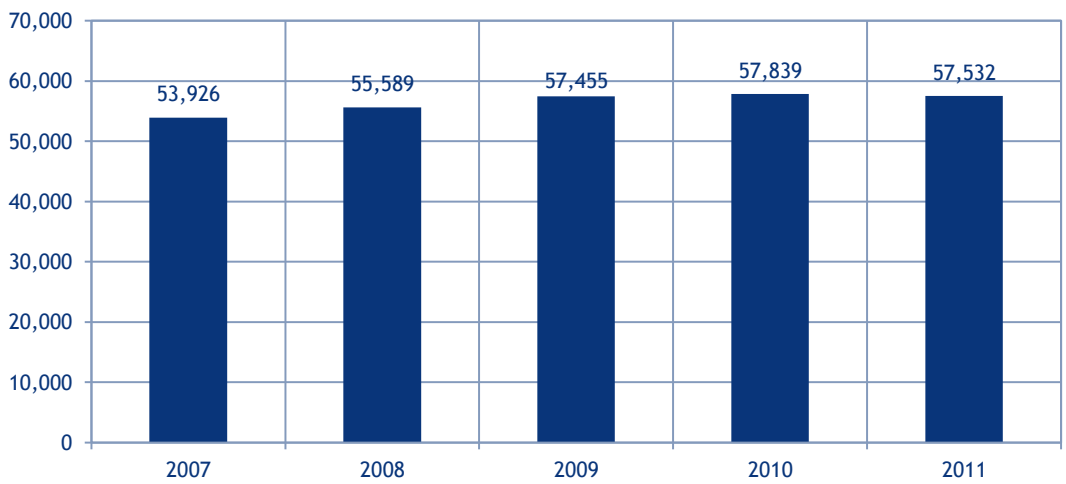
Note: The adjusted retention rate is available from 1996 only.

The number of Leaving Certificate candidates over the period 2007-2011 is shown in Figure 4.2. At more than 57,500 sits in 2011, the number of candidates was 1% lower than in 2010 but 7% higher (amounting to an additional 3,600 candidates) than in 2007. Males and females sat the Leaving Certificate in almost equal numbers with 28,814 female candidates and 28,718 male candidates in 2011. In 2011, there were 2,947 repeat Leaving Certificate candidates, representing a 4% increase since 2010 and an increase of almost three quarters (1,229 additional repeat candidates) on 2007.

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

[23] These figures refer to retention rates that are unadjusted for students transferring to non-State aided institutions and other destinations.

Figure 4.2 Number of Leaving Certificate Candidates, 2007-2011



Source: State Examinations Commission

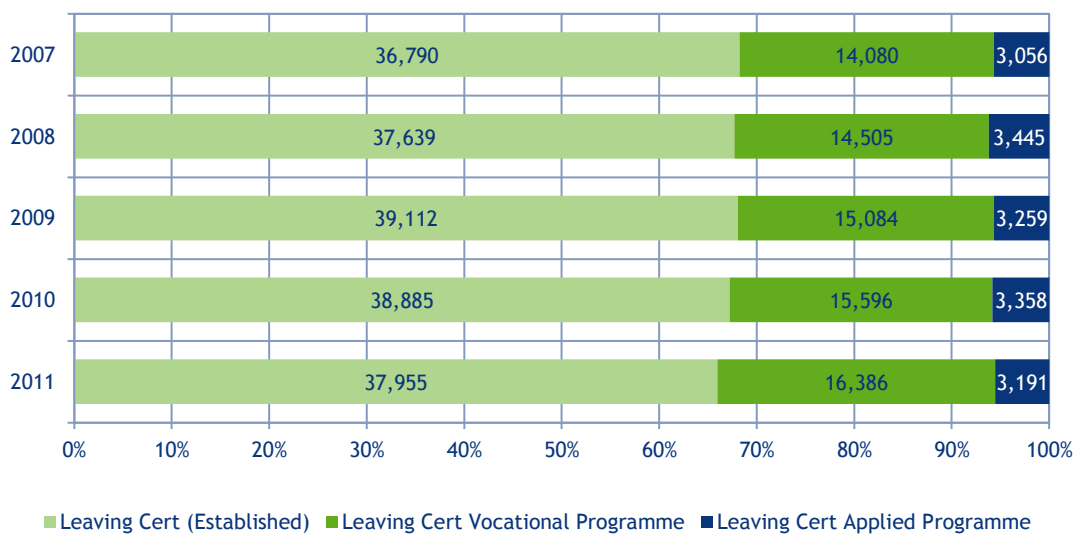
4.3 Leaving Certificate Programme Types

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 an 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.

Figure 4.3 shows the distribution of Leaving Certificate sits by programme type over the period 2007-2011. The Leaving Certificate Established is the most popular examination and is taken by approximately 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 Certificate Applied Programme accounts for the remaining 6% of candidates. Since 2009, there has been a slight shift away from the Leaving Cert Established towards the Leaving Cert Vocational Programme.

Figure 4.3 Leaving Certificate Candidates by Programme Type, 2007-2011



Source: State Examinations Commission

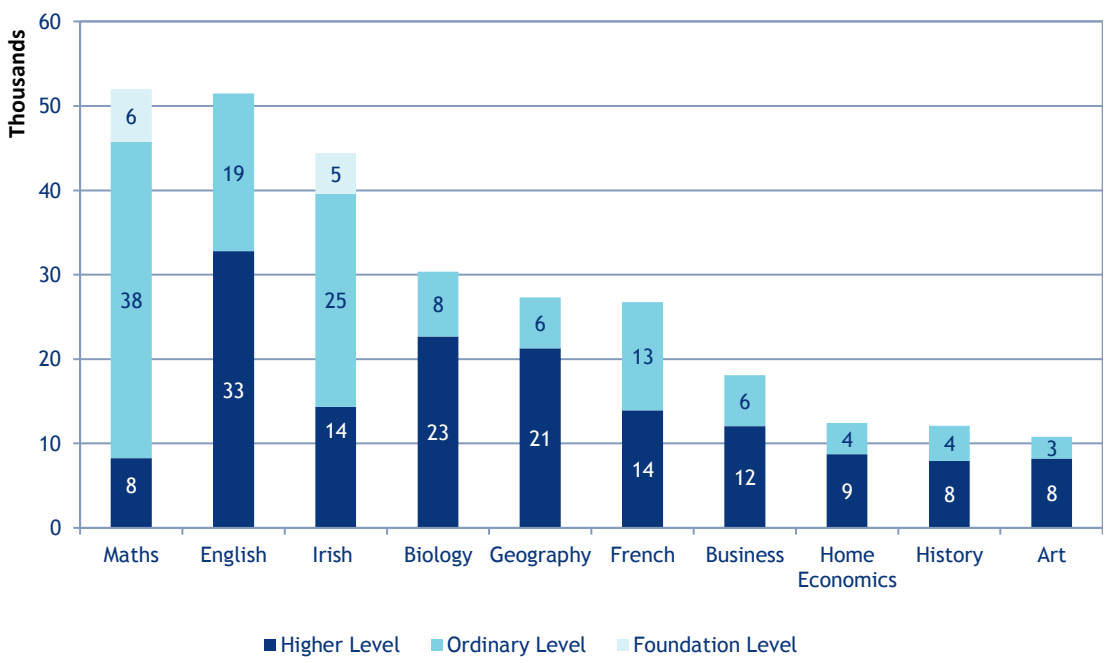
4.4 Leaving Certificate (LCE & LCVP): Subject Uptake & Higher Level Rates

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. Figure 4.4 details the ten most popular subjects taken by Leaving Certificate students in 2011:

- Mathematics and English had the highest number of candidates, with in excess of 51,000 sits each, followed by Irish (44,400 sits); at 96%, 95% and 82% respectively, the relatively 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 2011, approximately 12% of all mathematics students took foundation level mathematics, accounting for more than 6,200 sits

Figure 4.4 Top Ten Leaving Certificate Subjects by Level (000s), 2011



Source: State Examinations Commission

4.4.2 Science Subjects

This section focuses on mathematics and subjects known as 'core science subjects' or 'laboratory science subjects'[24]. 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 and the genetics programme at UCC requires at least a grade C in higher level biology.

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 in 2007 and 2011. In 2011 almost all students sat mathematics (96%) while well over half (56%) sat biology. Chemistry and physics had uptake rates of 14% or less. The most notable changes over the five-year period were:

- an increase in the take-up rate for biology (up from 51% to 56% over the five-year period); the numbers taking biology grew each year in the five years to 2011 resulting in approximately 4,600 additional sits in 2011 compared to 2007
- 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%)

[24] 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 chemistry and mathematics; 17% of all mathematics candidates sat the higher level paper in 2007, but this number declined to 16% in 2009 and has remained at that level since then.

Table 4.1 Selected Science Subjects: Total Sits, Take-up and Higher Level Participation 2007 & 2011

Year	Maths	Biology	Chemistry	Physics	PhysChem
Total Sits (% of Total)					
2007	49,043 (95%)	25,791 (51%)	6,926 (14%)	7,251 (14%)	538 (1%)
2011	51,991 (96%)	30,349 (56%)	7,677 (14%)	6,516 (12%)	472 (1%)
Higher Level Participation					
2007	17%	68%	83%	72%	73%
2011	16%	75%	82%	73%	80%

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 2011. Overall, just under 17% (approximately 9,500) of Leaving Certificate students sat at least two core science subjects in 2011; this compares to 2010, when there were almost 9,000 students, a rise of 6% (or more than 500 additional students). The most popular combination of core science subjects was biology and chemistry (5,362 sits).

Table 4.2 Students Sitting at Least Two Leaving Certificate Science Subjects, 2010-2011

Subject Combinations	2010 Sits	2011 Sits
Biology & Chemistry	5,116	5,362
Chemistry & Physics	1,893	1,916
Biology & Physics	1,818	1,997
Biology & Phys-Chem	166	237
Total	8,993	9,512

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 2007 and 2011. Overall, with approximately 18,000 sits in 2011, business was the most popular subject in this group, and was taken by a third of all Leaving Certificate candidates taking the exam; the numbers for accounting and economics are considerably smaller at 5,800 and 4,800 sits each respectively.

Between 2007 and 2011, the share of candidates taking business and accounting declined; the take-up rate for business fell from 37% to 33%, while the fall for accounting was slightly smaller, going from 13% to 11%. The take-up rate for economics has mostly remained at 9% throughout the five-year period 2007-2011.

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; the higher level participation rate declined for each of these subjects between 2007 and 2011, although the declines were modest at between one and two percentage points each.

Table 4.3 Selected Business Subjects: Total Sits, Take-up and Higher Level Participation 2007 & 2011

Year	Business	Accounting	Economics
Total Sits (% of Total)			
2007	18,957 (37%)	6,809 (13%)	4,444 (9%)
2011	18,083 (33%)	5,824 (11%)	4,796 (9%)
Higher Level Participation			
2007	67%	72%	79%
2011	66%	70%	78%

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 2007 and 2011 is outlined in Table 4.4. For most second level students, English and Irish are compulsory subjects and this is mirrored in the comparatively high take-up rates for these subjects each year - 95% and 82% respectively in 2011. Almost one half of all Leaving Certificate students sat French in 2011, while the take-up rates for German and Spanish were smaller at 13% and 7%, respectively.

Over the period, 2007-2011

- the shares taking Irish, French and German declined steadily by between two and six percentage points each
- the higher level participation rates increased for each subject except German (which declined) and English (which remained static); however, with the exception of mathematics, Irish has by far the smallest share of students taking the higher level paper (fewer than a third of candidates take the higher level paper).

Table 4.4 Selected Languages: Total Sits, Take-up and Higher Level Participation 2007 & 2011

Year	English	Irish	French	German	Spanish
	Total Sits (% of Total)				
2007	48,455 (95%)	44,018 (87%)	27,805 (55%)	7,539 (15%)	2,666 (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%)
2011	51,455 (95%)	44,397 (82%)	26,766 (49%)	6,955 (13%)	4,004 (7%)
	Higher Level Participation				
2007	64%	31%	50%	60%	58%
2009	64%	32%	49%	58%	57%
2010	64%	33%	52%	60%	56%
2011	64%	32%	52%	60%	60%

Source: State Examinations Commission

Foreign Language Subject Combinations

The number of students who sat at least two foreign languages in the 2011 Leaving Certificate examination is shown in Table 4.5[25]. The data is broken down by languages taken. The foreign languages covered are: French, German, Spanish, Italian, Russian[26] 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.

In 2011, almost 970 students sat the Leaving Certificate in at least two of the above-cited languages, representing a slight increase (23 additional students, or +2%) when compared to 2010. Of these 970 students, approximately three quarters (730) sat French in combination with another language – mostly either German or Spanish. This is a slight decline on 2010 when almost 80% of students sitting at least two languages took French.

There has been little change in the overall numbers between 2008 and 2011 with, on average, 950 students sitting a minimum of two languages each year. Nonetheless, this masks a slight decline in the number of students taking French and German (which declined by 27 and 55 sits each) in combination with other language towards greater participation in Japanese (+ 62 sits), Italian (+ 62 sits), Russian (+ 62 sits), and Spanish (+ 15 sits).

[25] 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.

[26] Russian is unusual in that it is a curricular language, taught as a timetabled subject in some 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, 2011

	French	German	Spanish	Italian	Russian	Japanese	Total
French		244	241	71	98	76	730
German	244		52	29	47	23	395
Spanish	241	52		30	19	29	371
Italian	71	29	30		2	0	132
Russian	98	47	19	2		6	172
Japanese	76	23	29	0	6		134

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 2007 and 2011 shows that

- at 1,262 sits in 2011, there was a five-fold increase in the number of people sitting non-curricular languages in the Leaving Certificate examination between 2007 and 2011.
- Polish has been the most popular non-curricular languages every year since 2008 accounting for 45% of all non-curricular language sits in 2011.

Table 4.6 Non-Curricular Languages (Sits) 2006-2011

	2007 Sits	2008 Sits	2009 Sits	2010 Sits	2011 Sits
Polish	53	171	328	451	574
Lithuanian	61	131	176	207	254
Romanian	25	67	92	121	115
Others*	40	65	87	97	122
Latvian	32	50	48	96	111
Portuguese	27	29	55	49	57
Dutch	16	28	31	29	29
Total	254	541	817	1,050	1,262

Source: State Examinations Commission

* Others: including Slovakian, Bulgarian, Hungarian, Swedish, Danish, 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 2007 and 2011 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. Among higher level subjects, chemistry had the lowest pass rate at 91% (down from 94% in 2007); at ordinary level, the lowest pass rate was 87%, for both biology and chemistry.

When considering each of the three levels for mathematics, almost 47,700 candidates (or 92% of the total) achieved a pass grade. The pass rate has risen for each of the three mathematics levels between 2007 and 2011: it went from 96% to 97% at higher level, from 88% to 89% at ordinary level; and from 93% to 95% at foundation level.

Table 4.7 Leaving Cert Achievements in Core Subjects by Level (2007 & 2011)

Level	Subject	2007		2011	
		≥ D Grades	% ≥ D	≥ D Grades	% ≥ D
Higher	English	30,509	98%	32,336	98%
	Maths	8,062	96%	7,982	97%
	Biology	16,123	92%	20,795	92%
	Chemistry	5,409	94%	5,728	91%
	Physics	4,829	92%	4,395	92%
Ordinary	English	16,789	97%	18,136	97%
	Maths	31,020	88%	33,795	89%
	Biology	7,027	87%	6,656	87%
	Chemistry	997	83%	1,225	87%
	Physics	1,831	90%	1,540	89%
Foundation	Maths	5,203	93%	5,921	95%

Source: State Examinations Commission

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

Table 4.8 provides the gender breakdown of sits for the top-ten Leaving Certificate subjects. With regard to the total number of sits, the gender distribution was balanced for just two subjects – mathematics and English – and close to balanced for Irish and business, where the gender gap was between two and four percentage points. Females outnumbered males in six of the top ten subjects, with females dominating especially in home economics, biology and art. Males dominated in just two subjects, history and geography, with gaps of 16 and 10 percentage points respectively.

At higher level, the candidates for eight of the top ten subjects were more likely to be female: the share of females was highest for home economics, followed by art, Irish and biology. At ordinary level males outnumbered females in five subjects, including history, English and geography. Males and females sat ordinary level maths in almost equal numbers.

At foundation level (not shown in the Table), males outnumbered females in both mathematics and Irish; of the 6,249 mathematics sits, 54% were male and of the 4,818 Irish sits, 66% were male.

Table 4.8 Top Ten Leaving Cert Subject Choice by Gender and Level, 2011

	Total				Higher Level				Ordinary Level			
Subject	Total Sits	M	F	Diff	Total Sits	M	F	Diff	Total Sits	M	F	Diff
Maths*	51,991	50%	50%	0	8,237	54%	46%	-8	37,903	49%	51%	2
English	51,455	50%	50%	0	32,783	45%	56%	11	18,492	59%	41%	-18
Irish*	44,397	48%	52%	4	14,359	35%	65%	30	25,906	52%	48%	-4
Biology	30,349	38%	62%	28	22,677	35%	63%	28	8,278	42%	58%	16
Geography	27,305	55%	45%	-10	21,249	38%	46%	8	13,215	58%	42%	-16
French	26,766	42%	58%	16	13,899	54%	62%	8	5,991	47%	53%	6
Business	18,083	49%	51%	2	12,024	47%	53%	6	6,095	52%	48%	-4
Home Econ.	12,400	12%	88%	76	8,724	8%	92%	84	3,553	20%	80%	60
History	12,106	58%	42%	-16	7,938	56%	45%	-11	4,188	63%	37%	-26
Art	10,782	37%	63%	26	8,215	34%	66%	32	2,608	50%	50%	0

Source: State Examinations Commission

*The figure in the 'Total' column includes foundation level

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 both ordinary and higher level. While the gap between female and male achievement was of the order of one-two percentage points at higher level, the gender gap tended to be wider at ordinary level (at least four percentage points for all subjects except English).

Table 4.9 Gender Breakdown of Achievement at Higher and Ordinary Level in Key Subjects, 2011

	English	%	Maths	%	Physics	%	Chemistry	%	Biology	%
Higher Level										
Males ≥ D	14,317	98	4,309	96	3,161	91	2,487	91	7,651	91
Females ≥ D	18,019	99	3,673	98	1,234	93	3,241	92	13,144	92
Ordinary Level										
Males ≥ D	10,644	97	18,213	88	1,267	88	581	84	3,241	84
Females ≥ D	7,642	98	17,712	92	273	92	644	90	3,918	88

Source: State Examinations Commission

At foundation level, 98% of females and 97% of males, amounting to 7,492 and 10,644 students respectively, gained at least a grade D in mathematics in 2011.

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.

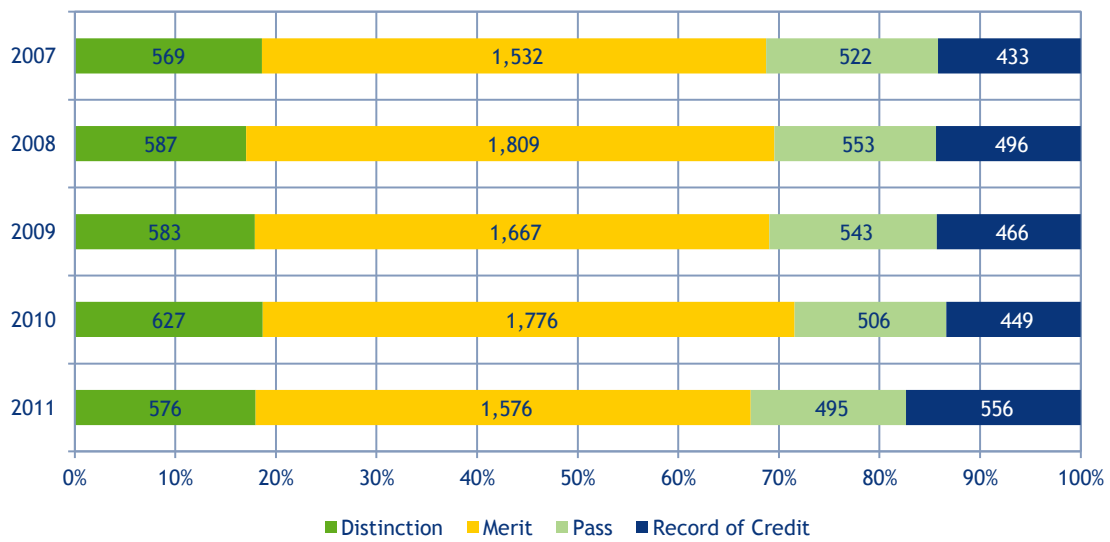
The LCA award holder is eligible to enter a range of Post-Leaving Certificate (PLC) courses, apprenticeships or courses offered by Fáilte Ireland. The PLC courses can lead to a FETAC (Further Education and Training Awards) level 5 award and in some cases a FETAC level 6 award. Students with the Leaving 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)[27] .

In 2011, 3,191 Leaving Certificate examinations students took the Leaving Certificate Applied Programme. The numbers of students who received a pass, merit, distinction or Record of Credit in the LCA 2007-2011 are presented in Figure 4.5. In 2011, 49% of all LCA candidates received a merit; 18% received a distinction; approximately 15% received a pass while the remaining 17% received a Record of Credit. When compared to 2007, there has been a gradual shift towards a greater

[27] For 2011, 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.

attainment of a Record of Credit, with the overall share going from 14% to 17% over the five year period. The share for all other result categories declined slightly.

Figure 4.5 Leaving Certificate Applied Results, 2007-2011



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)[28]. 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.

The Central Applications Office (CAO) undertakes the task of processing centrally the applications to full-time 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. Although there are some exceptions, subjects carry equal points and points are awarded for each grade as per the common scale points

[28] HEA (2010) *A Study of Progression in Higher Education*

outlined in Table 4.10 below. In addition, from 2012, higher education institutions[29] will introduce a bonus scheme for higher level Leaving Certificate mathematics where an extra 25 points are added to a candidate's points score. For example, a candidate with a D1 in higher level mathematics will be awarded 80 points (55 points for a D1 grade plus 25 bonus points). Some higher education institutions also award points for foundation level mathematics. 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 CAO Points (Leaving Certificate Grades (all subjects) and Higher Level Mathematics)

	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 Mathematics	125	115	110	105	100	95	90	85	80	75	70	0
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
Foundation Level Mathematics*	20	15	10	5	0	0	0	0	0	0	0	0

Source: CAO

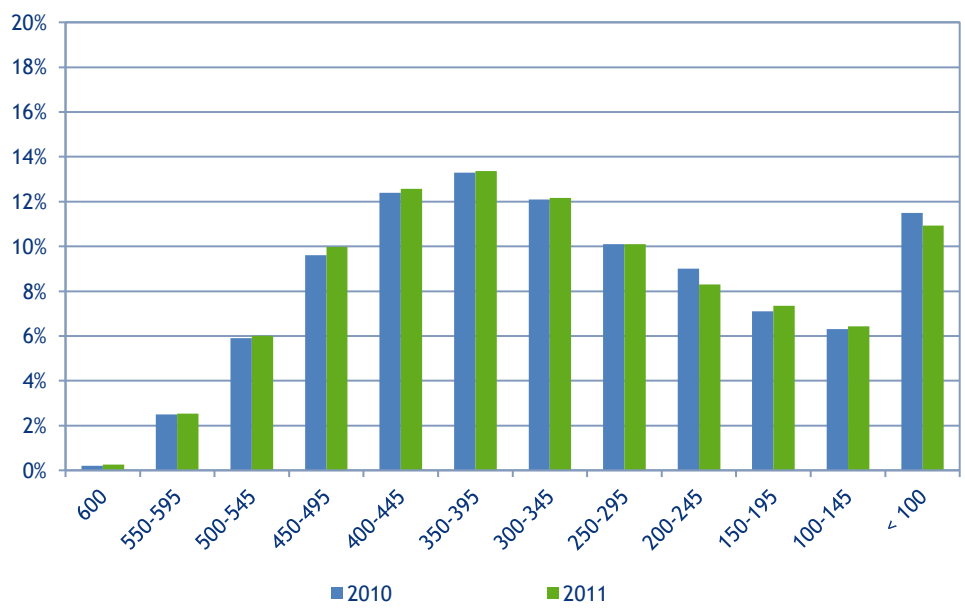
*Not all institutions award points for this level.

Figure 4.6 compares the points achievements for CAO applicants in 2010 and 2011. While not all CAO applicants are school leavers, the vast majority are; the data in this section may therefore serve as an indication of the achievements of the students who sat the Leaving Certificate Established examination in 2010 and 2011. The data presented here refers to nominal points achievements, based on candidates' results in six subjects; 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 600 points or more (i.e. with at least six A1 grades at higher level) made up less than 1% 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 between 2010 and 2011, going from 11.5% to 10.9% year-on-year.

[29] All higher education institutions participating in the CAO service will adopt the bonus points scheme with the exception of the National College of Art and Design which uses portfolio scores for selection and does not use the common points scale.

Figure 4.6 CAO Points Achievements for Leaving Certificate Applicants in 2010 & 2011



Source: CAO

Chapter 5 Further Education and Training

Key Points

- At almost 181,000, the number of FETAC award holders reached their highest number to date in 2011; this represents a 2% rise on the numbers in 2010 and a 40% rise on 2007
- More than one fifth of award holders in 2011 gained major awards
- There were approximately 334,000 FETAC awards made in 2011
- Despite the increase in the number of award holders, the number of awards made declined (by 4%, or almost 14,000 fewer awards) between 2010 and 2011
- With the exception of major awards, there were decreases for each award type
- As in previous years, slightly more FETAC awards went to females than males (53% vs 47%); however, a greater share of specific purpose and supplemental awards were made to males
- FETAC awards were most likely to be made to learners aged between 20 and 39 years (accounting for 40% of the total)
- Level 5 awards, at almost 180,000, accounted for more than one half of all awards in 2011
- Approximately one quarter of all FETAC awards were in the core skills, language and general studies field of learning (e.g. communications, computer literacy, work experience)
- The largest training centre types for FETAC awards were VECs/schools, with 46% of all awards made in 2011

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. There are over 900 registered FETAC providers offering programmes that lead to FETAC awards. The main training centre types 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, volunteer organisations 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 and gender, field of learning, and training centre type. Data for individual award types is then examined in greater depth.

5.2 Overview of Awards Data

5.2.1 Award Holders (Learners)

Table 5.1 shows the number of FETAC awards and award holders for 2007, 2010 and 2011 by award type. As award holders may obtain more than one type of award, 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, in 2011, almost 181,000 learners received a FETAC award in 2011, representing a 40% rise (or 52,000 additional learners) compared to 2007. The bulk of this increase occurred between 2008 and 2009 when there were almost 44,000 additional award holders year-on-year; further growth of 2% (or 4,100 extra learners) occurred between 2010 and 2011.

Compared to 2007, the number of award holders in 2011 increased for each award type except specific purpose awards. In contrast, the number of award holders declined compared to 2010 for all award types except major awards.

5.2.2 Awards

Over the five-year period 2007-2011, the total number of FETAC awards grew by almost a half (or 110,000 additional awards), with increases for each award type except specific purpose awards: major awards rose by more than 15,000 (+66%); minor awards by 108,000 (+61%), and supplemental by almost 500 (+107%). In contrast, the number of specific purpose awards declined by 55% (or more than 13,000).

The increases observed between 2007 and 2011, however, mask a 4% decline which occurred in the total number of awards made between 2010 and 2011. The number of awards declined for all award types except major awards (which increased by more than 6,000, or 19%).

Table 5.1 FETAC Awards by Type and Candidate, 2007-2011

Year	2007		2010		2011	
Award Type	Awards	Award Holders	Awards	Award Holders	Awards	Award Holders
Certificates (Major)	22,759	22,689	31,764	31,764	37,857	37,857
Component (Minor)	176,321	87,662	303,577	141,046	284,597	140,870
Specific (Special) Purpose	24,157	20,290	11,337	11,337	10,785	10,785
Supplemental	456	456	1,327	1,327	946	946
Total	223,693	128,624*	348,005	176,570*	334,185	180,690*

Source: FETAC

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

5.2.3 Awards by Level

Table 5.2 shows the distribution of awards by NFQ level over the years 2007, 2010 and 2011. At approximately 180,000 awards, more than one half of all awards made in 2011 were placed at level 5 on the NFQ; a further fifth (approximately 71,000 awards) were at level 3. Awards at levels 4 and 6, amounting to 46,000 and 35,000 respectively, made up 10% and 14% of the total each; awards at levels 1 and 2 made up a negligible share.

In line with the overall increase in the number of FETAC awards between 2007 and 2011, there were increases in the number of awards across all NFQ levels, except level 4 (which declined by 4%). While the largest increase in terms of numbers was at level 5 (+ 65,000 awards), the greatest relative increase was at level 6 where the number of awards more than doubled over the five-year period. In addition, awards at levels 1 and 2 were introduced in the intervening period, although combined they account for just over 1% of all awards in 2011.

Table 5.2 FETAC Awards by NFQ Level, 2007, 2101 & 2011

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Total
2007	-	-	45,445	47,982	113,545	16,721	223,693
2010	560	1,243	63,429	61,458	190,751	30,564	348,005
2011	927	2,960	70,557	46,073	178,842	34,826	334,185

Source: FETAC

5.2.4 Awards by Field of Learning

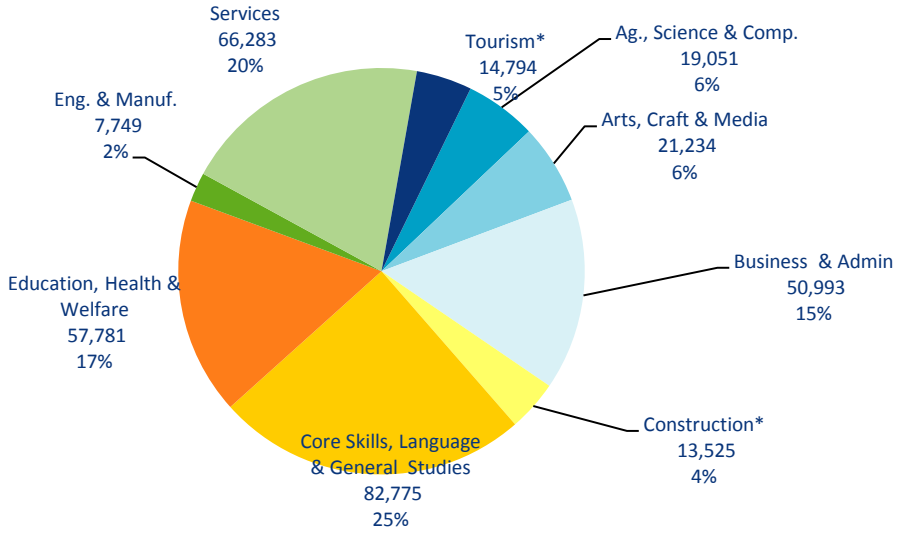
In contrast to issues of the Monitoring Ireland's Skills Supply reports prior to 2010, the field of learning for FETAC awards is based on the FETAC field of learning classifications and not, as has previously been the case, on ISCED (International Standard Classification of Education) field of learning categories. For comparative purposes, FETAC awards data for 2007 and 2010 is also provided by FETAC field of learning categories. Data in Table 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.

The distribution of FETAC awards by field of learning is shown in Figure 5.1. More than three quarters of all FETAC awards were in one of four fields of learning; the number of awards was highest for:

- Core skills, languages and general studies: at approximately 83,000 awards in 2011, one quarter of all FETAC awards were in this category (e.g. computer literacy, communications, work experience, etc.)
- Services: there were over 67,000 awards in this field (e.g. occupational first aid), making up a fifth to the total
- Education, health and welfare: with almost 58,000 awards, education, health and welfare (e.g. train the trainer, childcare, etc.) accounted for 17%
- Business and administration: at more than 51,000, these awards accounted for 15% of the total.

Figure 5.1 FETAC Awards by FETAC Field of Learning, 2011



Source: FETAC

* Construction = Construction & Built Environment; Tourism = Tourism, Hospitality & Sport; Ag., Science & Comp. = Agriculture, Science & Computing; Eng & Manuf = Engineering & Manufacturing

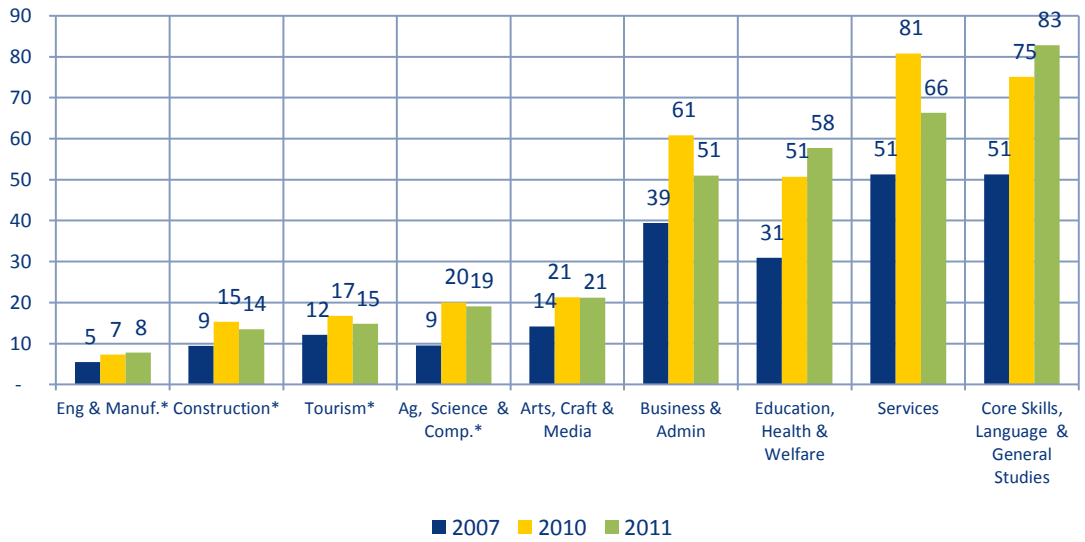
While there were increases in the number of awards made across all fields of learning between 2007 and 2010, the only fields to record any growth between 2010 and 2011 were the core skills, language & general studies field and the education, health & welfare field, which grew by 9% and 12% respectively (Figure 5.2). The awards with the largest increases in the core skills, language and general studies field included computer literacy (+2,200) and ICT (+1,100[30]); the largest increases

[30] This figure refers to a combination of information and communications technology awards (+2,103 when compared with 2010) and information and technology awards (-962 when compared with 2010).

for education, health and welfare category included practical home care skills (+1,700 awards) and care of the older person (+ 1,300 awards).

The fall observed in the number of construction awards does not reflect the true extent of the impact of the recession, as this field had already absorbed most of the effect of the downturn prior to 2010: construction awards peaked in 2009 at in excess of 20,000 awards, but their number fell by 24% between 2009 and 2010, with the total falling from 20,000 to just over 15,000 year-on-year. Nonetheless, at approximately 13,000 in 2011, the number remains more than 40% greater than in 2007. The construction awards in 2011 relate to both traditional construction areas (e.g. carpentry and joinery and plumbing) and energy efficiency and renewable energy courses (e.g. thermal insulation installation or domestic solar heating installation).

Figure 5.2 FETAC Awards by Field of Learning (000s), 2007-2011



Source: FETAC

* Construction = Construction & Built Environment; Tourism = Tourism, Hospitality & Sport; Ag., Science & Computing = Agriculture, Science & Computing; Eng & Manuf = Engineering & Manufacturing

5.2.5 Awards by recipient gender

The analysis of awards data by gender is based on the award rather than the recipient. In other words, it examines the gender of the recipient of an award, rather than a head count of the male and female award holders. Overall, in terms of award holders, 52% of all award holds in 2011 were female, 48% were male.

Table 5.3 shows the gender distribution of FETAC awards recipients over the period 2007-2011. Overall, a slightly greater share of awards went to female recipients each year (53% for females compared to 47% for males in 2011). The distribution of awards recipients by gender is close to gender balanced for almost all NFQ levels, with the exception of levels 4 and 5. Males dominated at

level 4 with 61% of awards; typical awards at this level include manual handling, computer applications and security guarding. In contrast, at 59%, a greater share of level 5 awards was made to female learners.

The most notable changes observed since 2007 were at levels 3 and 6. At level 6, more awards were made to females than males for the first time in 2011. This shift in female share at level 6 may be due to the combined effects of fewer craft awards being made in the construction field (typically a male dominated area) and a considerably larger number of childcare supervision awards (+ 5000 extra awards). Conversely, at level 3, the share of awards made to male recipients, which had been increasing gradually each year since 2007, was higher than that made to females for the first time in 2011.

Table 5.3 FETAC awards by gender and NFQ level, 2007, 2010-2011

	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
2007	-	-	-	-	37%	63%	58%	42%	39%	61%	58%	42%	44%	56%
2010	77%	23%	68%	32%	48%	52%	62%	38%	42%	58%	50%	50%	47%	53%
2011	51%	49%	49%	51%	52%	48%	61%	39%	41%	59%	47%	53%	47%	53%

Source: FETAC

5.2.6 Awards by recipient age

Table 5.4 outlines the distribution of FETAC awards made to learners by age group. Data for which the recipients' age was unavailable has been excluded. FETAC awards were most likely to be made to younger learners: approximately 45% of learners were aged less than 30 years; in contrast, 14% of awards were made to learners aged 50 years are more.

The share of awards made to younger recipients (less than 30 years) declined slightly since 2007 and went from 50% of the total to 40% over the five years. The share of awards made to those in each of the older age cohorts, on the other hand, increased slightly, with the exception of those aged 60 and over (which remained the same).

Table 5.4 FETAC awards by recipient age, 2007-2011

	<19	20-29	30-39	40-49	50-59	60+	Total
2007	19%	31%	21%	17%	9%	3%	100%
2010	20%	28%	21%	17%	10%	3%	100%
2011	17%	28%	23%	18%	11%	3%	100%

Source: FETAC

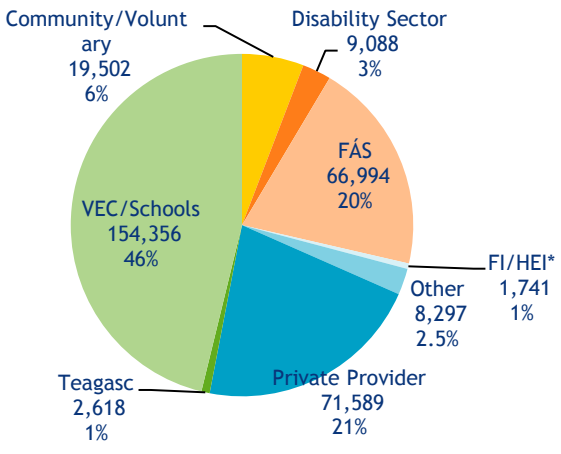
5.2.7 Awards provision

The data in this section reflects the number of awards by training centre type only; it is not a measurement of funding; as such it does not take account of the fact that some organisations may receive funding to supply training on behalf of another (e.g. FÁS), thereby underestimating the provision of some training centre types[31] and overestimating that of others.

The distribution of FETAC awards made in 2011 by the main training centre types is presented in Figure 5.3. Of the 334,185 awards in 2011, almost one half (46%) were made to learners at VEC/school centres; 21% were made to learners at private provider centres, and a further fifth made to FÁS learners.

When compared to 2010, the share of awards made to learners at VEC/schools and private providers rose slightly, up from 44% and 18% respectively to 46% and 21%. The share made to FÁS learners, in contrast, declined by seven percentage points to 20%. The shift in the distribution of awards by training centre type was chiefly the result of gains in the number of awards for almost all training centre types, except 'other' training centres and FÁS (which declined). The decline in the number of FÁS awards was due in part to two factors: firstly, while FÁS provided courses in manual handling throughout 2011, certification for these courses has been discontinued; secondly, revised procedures at FÁS have meant a once-off increased time lag between course completion and the issuing of the award when compared to 2010 with the result that some learners in 2011 were not captured in the data.

Figure 5.3 FETAC Awards by Training Centre Type, 2011



Source: FETAC

*FI/HEI refers to the combined number of awards for courses at: Fáilte Ireland and higher education institutions and higher education institutions

Please note that some training centre types have been reclassified by FETAC for the 2011 data. Data for private provider centres and 'other' training centre types is therefore not comparable with that cited in previous publications.

[31] 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.

5.3 Major Awards

At almost 38,000 awards in 2011, the number of major awards grew by two thirds between 2007 and 2011, representing an additional 15,000 awards over the five-year period (Table 5.1) and an additional 6,000 awards compared to 2010. While the number of major awards increased each year since 2007, the largest increase occurred between 2010 and 2011 when the number of awards went from approximately 32,000 to 38,000, representing an overall increase of almost 20% (or 6,000 extra awards).

Award Level: at almost 23,500, level 5 made up the largest share of major awards, accounting for almost two thirds (62%) of the total in 2011 (Table 5.5); close to a quarter were placed at level 6 with approximately 9,000 awards. Most of the remaining awards were made at levels 3 and 4 (a combined total of over 4,600 awards). The combined share of level 1 and 2 awards amounted to approximately 2% (or just under 800 awards).

The distribution of awards in 2007 and 2011 was largely similar, although the share of level 6 awards declined slightly from 29% to 24% and the share of level 5 award rose from 59% to 62%.

Awards by Field of Learning: as outlined in Table 5.5, the top three fields of learning (and accounting for almost two thirds of all major awards in 2011) were

- Education, health and welfare (12,000, or 32% of the total); made mostly at level 5 (e.g. childcare, healthcare support)
- Business and administration (7,000 awards, or 18% of the total); also made mostly at level 5 (e.g. business studies, secretarial studies)
- Core skills, languages and general studies (5,300 awards, or 14% of the total); made mostly at level 3 for award titles such as general learning.

When compared to 2010, there were increases in the number of awards across all fields of learning; however, the increases were particularly strong in education, health and welfare at levels 5 and 6, where there were an additional 2,300 awards compared 2010 and in core skills, languages and general studies (at level 3), which increased by 900 awards.

When compared with 2007, there has been a marked shift towards awards in education, health and welfare, with the share of awards in this field increasing from approximately one quarter of all major awards in 2007 to almost one third in 2011; in absolute terms, the number of awards in education, health and welfare more than doubled over the five-year period, going from almost 6,000 to more than 12,000; almost one half of this increase was due to approximately 2,600 additional awards in childcare related areas which may be due to the fact that all pre-school year

leaders involved in the Early Childhood Care and Education (ECCE) programme must hold at least a level 5 major award in childcare/early education[32].

Table 5.5 Major Awards by NFQ Level and Field of Learning, 2011

Major Awards	NFQ 1	NFQ 2	NFQ 3	NFQ 4	NFQ 5	NFQ 6	Total
Agriculture, Science & Computing	-	-	-	75	2,191	1174	3,440
Art, Craft & Media	-	-	-	13	2,440	495	2,948
Business & Administration	-	-	128	99	5,779	975	6,981
Construction *	-	-	-	8	221	1,826	2,055
Core Skills, Language & General Studies	264	539	3,284	863	391	-	5,341
Education, Health & Welfare	-	-	16	11	10,083	1,912	12,022
Engineering & Manuf.*	-	-	-	11	288	2,031	2,334
Services	-	-	-	11	731	54	792
Tourism*	-	-	-	89	1,361	494	1,944
Total	264	539	3,428	1,180	23,485	8,961	37,857

Source: FETAC

* Construction = Construction & Built Environment; Tourism = Tourism, Hospitality & Sport; Ag., Science & Comp. = Agriculture, Science & Computing; Eng & Manuf = Engineering & Manufacturing

Major awards by recipient gender: with a 58% share of the total, major awards are slightly more likely to be made to female learners than to male learners. Nonetheless, the distribution of awards by gender differs considerably at levels 5 and 6. While female recipients dominate at level 5, receiving more than two thirds of all major awards at this level (for courses such as hairdressing, childcare, etc.), males dominate at level 6 with almost two thirds of the awards (e.g. electrical craft awards, carpentry and joinery). Therefore, the differences in the gender distribution of awards reflect in part the type of awards typically associated with these levels. Awards at levels 1-4 were made to males and females in almost equal numbers.

While the overall shares of awards made to female and male learners in 2007 and 2011 were similar, this masks major shifts that occurred at some NFQ levels: the share of level 6 awards going to males declined substantially over the five-year period, going from 88% to 64% (mostly due to the rise in the number of female recipients – the number of male recipients remained the same) [33]; in contrast, males have made gains in the share of awards across levels 3-5 of at least nine percentage points at each level, although with the exception of level 4, more awards were nonetheless made to females than males at these levels.

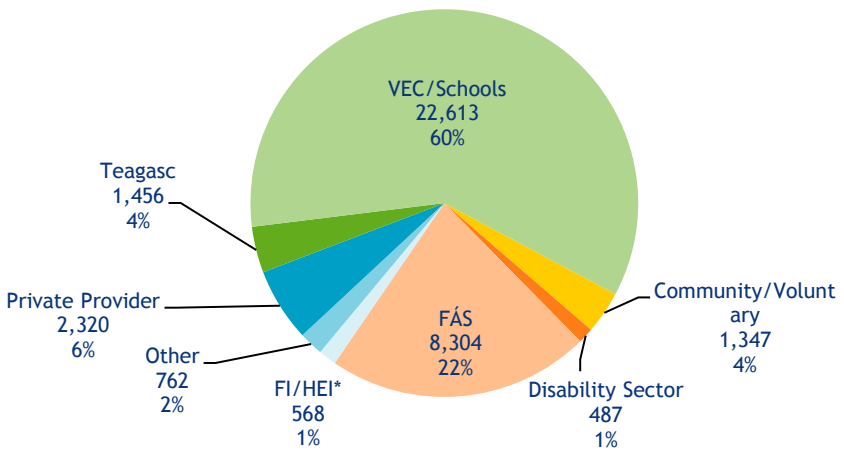
[32] Moreover, a higher capitation fee is available to playschool service providers where all the pre-school leaders in the service hold a level 7 childhood/early education qualification and where all pre-school assistants hold a major award at level 5 in childhood/early education (Dept. of Children and Youth Affairs: http://www.dcya.gov.ie/viewdoc.asp?fn=/documents/childcare/Terms_and_Conditions_for_ECCE_Scheme.pdf).

[33] The increase in the number of females receiving awards relates mostly to a rise in the number of childcare supervision awards; at level 6, there were 1,900 childcare supervision awards, compared to just over 200 in 2007.

Major awards by recipient age: In 2011, approximately 23,000 (or 60%) of all major awards were made to learners aged less than 30 years, with a further 6,700 (18%) being made to learners aged between 30 and 39 years. Compared to 2007, the share of awards going to the younger age cohorts declined, going from 70% to 60% over the five-year period.

Major awards by training centre type: most major awards in 2011, as in 2010, were made to learners taking courses at VECs/schools and, to a lesser, extent FÁS (Figure 5.4). VECs/Schools accounted for 22,600 awards and FÁS for 8,300 awards, making up 60% and 22% of the total respectively. The distribution of awards by centre type is largely similar to 2007, although, the share of FÁS awards declined to 22% from 26%; there was a rise in the share of awards made in the VECs/school sector (up to 60% from 58%). As the number of major awards made to FÁS learners has actually increased in the last year, the decline in the FÁS share of awards is due to even stronger increases in the number of learners at other FET providers.

Figure 5.4 Major Awards by Training Centre Type, 2011



Source: FETAC

*FI/HEI refers to the combined number of awards for courses at: Fáilte Ireland and higher education institutions and higher education institutions

Please note that some training centre types have been reclassified by FETAC for the 2011 data. Data for private provider centres and 'other' training centre types is therefore not comparable with that cited in previous publications.

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 2011, 40 higher education institutions (including universities, Institutes of Technology and private colleges) offered places to FETAC applicants on a variety of courses. There were 8,261 CAO applicants who were holders of a FETAC major award in 2011; of these 5,992 applicants had achieved their award in 2011 (Source: CAO).

5.4 Minor Awards

The number of component certificates (minor awards) award holders increased by almost two thirds between 2007 and 2011, resulting in an additional 53,000 award holders over the five-year period. However, there was little change between 2010 and 2011, with the number of award holders remaining at approximately 141,000. In 2011, there were 284,597 minor awards, made to 141,000 individuals, translating into approximately two minor awards per candidate, on average. While there was a decline of 19,000 awards (or a 6% fall) between 2010 and 2011, the number of awards made in 2011 is almost two thirds greater (61%, or approximately 108,000 additional awards) than in 2007, when there were over 176,300 awards.

Award Level: At more than 147,000 awards in 2011, more than one half of all minor awards were at level 5; almost a quarter (67,000) were at level 3, while levels 4 and 6 made up 16% and 8% of the total respectively; the combined number of awards at levels 1 and 2 accounted for approximately 1%.

Compared to 2007, there was a shift away from level 4 minor awards towards an increased share for level 5 awards (+ 8 percentage points to reach 52% in 2011) and level 6 awards (+ 4 percentage points to 8%). While the combined share of level 5 ad 6 awards accounted for less than half of the total in 2007 (48%), they accounted for 60% of the total in 2011.

Awards by Field of Learning: more than one quarter (approximately 77,000 awards) were in the core skills, languages and general studies field (e.g. communications); the services field (e.g. occupational first aid) made up 22% (or at almost 63,000 awards) and, with approximately 44,000 awards each, the business and administration field and the education, health and welfare field combined accounted for 30% of all minor awards (Table 5.6).

When compared to 2007, there were increases in the number of awards for each field of learning. However, with the exception of awards in the core skills etc. and education, health and welfare fields, there were declines for all fields between 2010 and 2011. The number of awards in the core skills, language and general studies fields and the education, health and welfare field increased by more than 6,000 and almost 4,000, respectively.

Table 5.6 Minor Awards by Level and Field of Learning, 2011

Minor Awards	NFQ 1	NFQ 2	NFQ 3	NFQ 4	NFQ 5	NFQ 6	Total
Agriculture, Science & Computing	51	20	4,374	2,211	7,396	1,343	15,395
Art, Craft & Media	30	97	6,681	2,273	7,984	1,221	18,286
Business & Administration			3,104	11,639	24,210	5,036	43,989
Construction & the Built Environment			602	1,761	3,762	427	6,552
Core Skills, Language & Gen. Studies	582	2,304	43,804	7,937	21,501	1306	77,434
Education, Health & Welfare			1,011	968	30,458	11,326	43,763
Engineering & Manufacturing			1,358	500	2,104	522	4,484
Services			2,463	15,635	43,396	439	61,933
Tourism, Hospitality & Sport			3730	1,701	6,663	667	12,761
Total	**663**	**2,421**	**67,127**	**44,625**	**147,474**	**22,287**	**284,597**

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, in a pattern similar to 2010, slightly more minor awards were made to females than to males (55% female, 45% male). However, the share of awards made to females was even higher for level 5 and 6 awards, with 61% and 66% of awards respectively. In contrast, 61% of level 4 awards were made to males. The remaining awards were made to males and females in almost equal numbers.

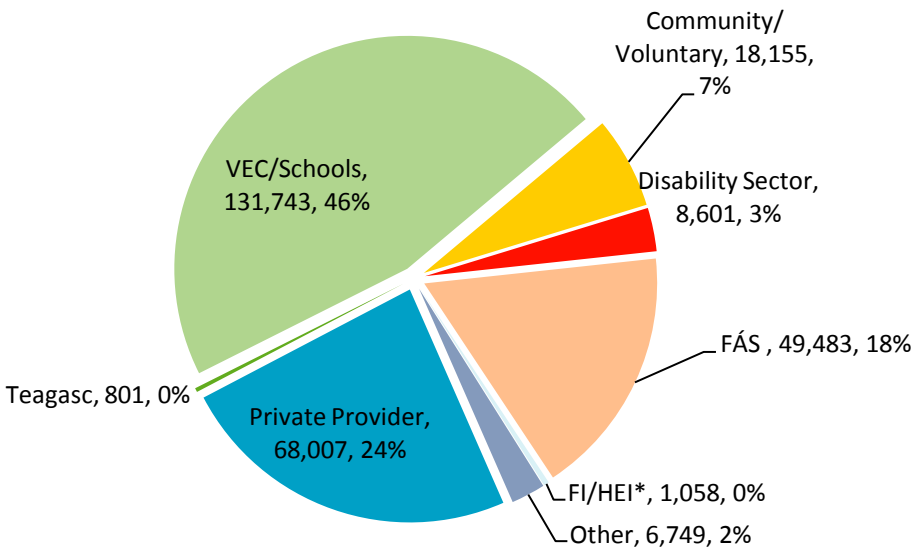
When compared to 2007, there have been considerable gains in the share of awards being made to male learners; overall their share rose from 37% of all minor awards in 2007 to 45% in 2011. The greatest gains for males were for awards at levels 5 (+14 percentage points) and level 3 (+14 percentage points).

Minor awards by recipient age: 44% of minor awards were made to recipients aged less than 30 years and a further 23% went to learners aged 30-39; just over a third of awards went to older learners aged 40 or over. While the distribution is broadly similar to 2007, the share going to younger learners has declined slightly: almost one half (49%) in 2007 were made to recipients aged less than 30 years - five percentage points more than in 2011.

Minor awards by training centre type: almost one half (46%) of all minor awards were made to learners at VEC/school centres (Figure 5.5); one quarter were made to learners at private provider

centres and a further 18% were made to learners at FÁS centres. The distribution of awards by training centre type in 2011 was broadly similar to that of 2010, although the share of awards made to learners at FÁS centres fell from 25% to 18% (almost 26,000 fewer awards); in contrast, there were increases for most other training centre types. The decline in the number of FÁS awards was due in part to two factors: firstly, while FÁS provided courses in manual handling throughout 2011, certification for these courses has been discontinued; secondly, revised procedures at FÁS have meant a once-off increased time lag between course completion and the issuing of the award when compared to 2010 with the result that some learners in 2011 were not captured in the data for procedural reasons.

Figure 5.5 Minor Awards by Training Centre Type, 2011



Source: FETAC

*FI/HEI refers to the combined number of awards for courses at: Fáilte Ireland and higher education institutions and higher education institutions

Please note that some training centre types have been reclassified by FETAC for the 2011 data. Data for private provider centres and 'other' training centre types is therefore not comparable with that cited in previous publications.

5.5 Specific Purpose Awards

Between 2010 and 2011, the number of specific purpose awards and award holders declined by approximately 5%, going from 11,337 in 2010 to 10,785 in 2011. This continues the downward trend, observed in recent years, in which the number of specific purpose awards more than halved between 2007 and 2011 (in 2007, there were 24,157 specific purpose awards and 20,290 award holders).

Award Level: with the exception of two awards at level 3, specific purpose awards were made at levels 4, 5 and 6 only; the majority (73%, or 7,900 awards) were made at level 5. In line with the overall decline in specific purpose awards, there were declines at all levels when compared to previous years; however, in relative terms, a greater share of awards were made at level 6 (up from 8% to 24%) in 2011 compared to 2007, with a corresponding decline at level 5 (down from 90% to 73%).

Awards by Field of Learning: almost three quarters of all specific purpose awards were made in one of two fields: there were more than 4,000 awards (37%) in the field of construction and built environment and a further 3,700 (34%) in the services field (Table 5.7)[34]; these awards related mostly to best practice training (three-day courses) for private and public sector employees working in the construction industry, e.g. roads construction. Education, health and welfare awards, at almost 2,000 awards, made up almost a fifth of the total.

The share of awards spanning the services and construction and built environment fields declined from 86% to 71% between 2007 and 2011. At the same time, there was an increase in the number and share of awards in education, health and welfare, which went from 2% to 18%; this growth was largely due to the introduction of manual handling instruction awards and several vehicle-driving instruction awards (e.g. passenger vehicle driving, car driving, and goods vehicle driving instruction).

Table 5.7 Specific Purpose Awards by Field of Learning and NFQ Level, 2011

Specific Purpose Awards	NFQ 1-3	NFQ 4	NFQ 5	NFQ 6	Total
Agriculture, Science & Computing	-	92	-	124	216
Business & Administration	-	9	8	6	23
Construction & the Built Environment	-	78	3,841	255	4,174
Education, Health & Welfare	-	-	-	1,996	1,996
Engineering & Manufacturing	-	-	630	99	729
Services	-	83	3,404	71	3,558
Tourism, Hospitality & Sport	2	6	-	81	89
Total	**2**	**268**	**7,883**	**2,632**	**10,785**

Source: FETAC

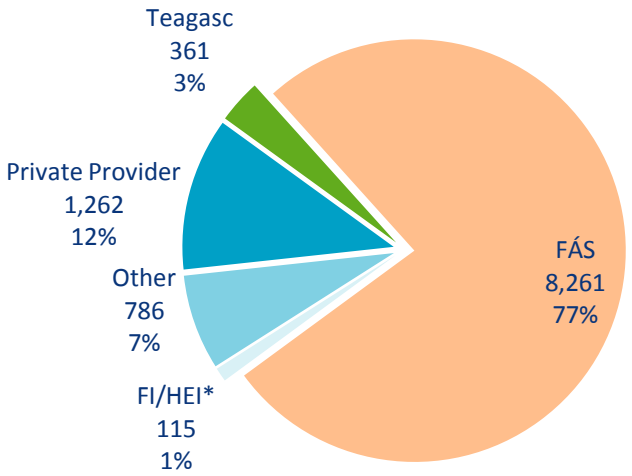
Specific purpose awards by recipient gender: the vast majority of specific purpose awards were made to male learners (92%); the share of awards made to females was highest at levels 4 and 6, where 28% and 24% of the awards were made to females. This pattern is similar to previous years, with males dominating at all levels.

[34] Some of the specific purpose awards categorised in the services field are comprised of awards that are related to the construction field, such as articulated dumper operations, telescopic handler operations, and excavator operations awards.

Specific purpose awards by recipient age: compared to other award types, specific purpose awards were more likely to be made to older recipients; more than one half of all awards were made to learners aged between 30 and 49 years (this contrasts in particular with major awards where less than a third were in this age category). Furthermore, a fifth of awards were made to learners aged 50 or more. Those aged less than 30 accounted for less than one quarter. The profile of the recipients of specific purpose awards has aged somewhat over the period 2007-2011, with the share of those aged over 30 increasing from 60% to more than three quarters.

Specific purpose awards by training centre type: 77% of specific purpose awards were for FÁS courses (Figure 5.6); private provider training centres made up 12% of the total, followed by other training centres at 7% and at 4%. When compared to 2010, the FÁS share declined (from 89%) while there was a ten percentage point gain for private provider training centres which went for a 2% share in 2010 to 12% in 2011.

Figure 5.6 Specific Purpose Awards by Training Centre Type, 2011



Source: FETAC

*FI/HEI refers to the combined number of awards for courses at: Fáilte Ireland and higher education institutions and higher education institutions

Please note that some training centre types have been reclassified by FETAC for the 2011 data. Data for private provider centres and 'other' training centre types is therefore not comparable with that cited in previous publications.

5.6 Supplemental Awards

There were 946 supplemental awards made in 2011. Despite a 29% decline compared to 2010, the number of supplemental awards in 2011 is approximately double that of 2007 (456 awards). All supplemental awards were made at level 6 only and were made to FÁS learners, mostly for awards in installing domestic solar water systems, domestic gas installation and safety in gas installation.

Supplemental awards were made almost exclusively to male recipients. More than two thirds of supplemental awards were made to learners aged between 20 and 39; 20% were made to those aged 40-49 and approximately 12% to those aged 50 or over. This distribution of awards by learner age is similar to that of 2010, although there was a slight shift towards an increased number of awards going to learners aged between 20 and 29 years, who made up 29% of the total in 2007, compared to 35% in 2011.

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

Key Points

- CAO Acceptances: there were almost 45,800 CAO acceptances (NFQ 6-8) in 2011, a figure broadly in line with 2010; a 10% decline occurred at level 6 while the number of acceptances at level 7 declined by 1%. Level 8 acceptances increased by approximately 2% (more than 600 additional acceptances) year-on-year.
- Graduate Output: there were 40,100 graduates at levels 6-8 in 2010, an increase of 4% on 2009. Output increased across all levels, 6% at level 6, 5% at level 6 and 4% at level 8. Output at level 8 accounted for two thirds of overall output in 2010.
- Outlook: output at level 8 is expected to continue to increase in the short term while declines are expected at levels 6 and 7. Major fluctuations are not anticipated in the medium term.
- Engineering: output at level 8 increased by 13% between 2009 and 2010, and with continued increases in CAO acceptances and enrolments, a continuation of this trend is expected in the medium term
- Construction: the significant decline in intake to level 8 construction courses has yet to be fully realised in the output data, although this is expected to become apparent in the short to medium term
- Computing: declines at level 8 were reversed in 2010 with a 27% increase in output. The continued growth in CAO acceptance numbers and enrolment levels suggest a continuation of this trend in the medium term
- Science: while graduate output remained unchanged at level 8 between 2009 and 2010, a growth in the number of students accepting and enrolling in science courses indicates that output will remain strong in the medium term
- 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 9% respectively). Ireland also performs well above the EU and OECD averages at Tertiary Type A level (comparable to honours bachelor degree programmes) (47.1% for Ireland compared to 36.6% and 37.8% for the EU and OECD).

6.1 Introduction

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 a comprehensive overview 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.

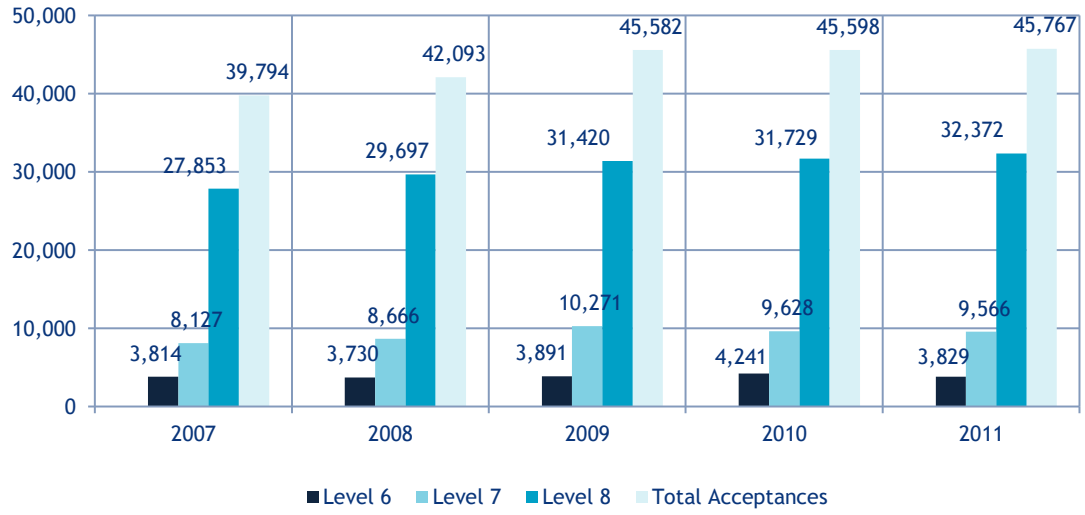
CAO course acceptances are not the same as student enrolments. Some acceptors do not enrol and some seek deferment. As CAO acceptances refer only to full-time courses and do not include some mature or access students (who may enter through direct entry methods), the numbers are likely to be smaller than 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 2007-2011. While the number of acceptances has risen significantly since 2007, a levelling off has occurred for the last three years with figures remaining at over 45,000.

- Level 6: While an increase at this level occurred in 2010, 2011 saw a 10% decline and a return to levels seen between 2007 and 2009.
- Level 7: Although the number of acceptances at this level declined by 1% year-on-year between 2010 and 2011 it represents an 18% increase over the five year period 2007-2011.
- Level 8: The number of acceptances for level 8 programmes rose by 2% between 2010 and 2011 and by 16% since 2007.

Figure 6.1 CAO Total Acceptances by level, 2007-2011



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 2007 to 2011. The decline in the number CAO acceptances at level 7/6 in 2011 was reflected in both the 16-17 age group and those aged 23 and above, while the number of acceptors aged 18-22 increased by 2%.

At level 8, increases occurred across all age groups in the period 2007 to 2011, particularly for those aged 23 and above (an increase of 45%); this is despite a year-on-year decline of 5% since 2010 for this age group. The number of acceptors aged 18-22 have grown annually over the period with a 6% increase between 2010 and 2011. Those aged 16-17 have remained steady in the five year period.

Table 6.1 CAO Acceptances by level and age, 2007-2011*

	Level 7/6					Level 8				
Age	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
16-17	5,303	5,351	5,523	4,904	4,555	13,043	13,847	13,930	13,339	13,342
18-22	5,337	5,521	6,118	6,095	6,220	12,021	12,841	13,791	14,150	14,976
23+	1,418	1,540	2,518	2,892	2,624	2,784	3,012	3,701	4,239	4,046
Total	12,058	12,412	14,159	13,891	13,399	27,848	29,700	31,422	31,728	32,364

Source: CAO Directors Reports

*There are slight variations in the data between this and Figure 6.1 due to two different data collection intervals

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 2010 and 2011. While declines in level 6 acceptances were spread across the majority of disciplines, most technology subjects at level 8 experienced an increase in participation.

Table 6.2 CAO Acceptances by Discipline, Level 6-8, 2011

	Level 6		Level 7		Level 8	
	Acceptances 2011	% Change 10-11	Acceptances 2011	% Change 10-11	Acceptances 2011	% Change 10-11
Engineering	594	-11%	1,422	-2%	1,569	5%
Construction	96	-50%	686	-21%	782	-13%
Computing	243	-25%	1,163	-3%	2,066	19%
Science	376	-10%	748	8%	3,725	4%
Total Technology	1,309	-18%	4,019	-4%	8,142	6%
Health & Welfare	112	4%	276	-15%	3,773	1%
Agriculture & Veterinary	100	-36%	425	36%	427	-8%
Total Health, Vet & Agriculture	212	-20%	701	10%	4,200	0%
Arts & Humanities	62	-27%	852	14%	10,217	0%
Social Sciences, Business & Law	1,357	-11%	2,429	-8%	6,722	-1%
Education	36	-12%	111	-7%	2,343	3%
Services	853	17%	1,454	13%	748	28%
Total Other	2,308	-3%	4,846	1%	20,030	1%
TOTAL	3,829	-10%	9,566	-1%	32,372	2%

Source: CAO

CAO Acceptances (NFQ 6-8): Technology

While further declines occurred at levels 6 and 7, acceptances at level 8 continued to rise (by 6%) between 2010 and 2011. The most substantial increase to occur over this time period was for level 8 computing courses, which rose by a fifth.

Engineering: acceptances followed a similar pattern to the previous year with levels 6 and 7 both experiencing declines and level 8 acceptances continuing to increase.

Construction: significant declines in acceptances across all levels continued unabated in 2011. These declines are not expected to recover in the short-term.

Computing: Level 8 acceptances continued to show steady growth and are now double that of five years ago. At level 7, a 3% decline occurred while level 6 acceptances declined by 25%, albeit from a small base.

Science: Following a levelling off of level 8 acceptances in 2010, 2011 saw an increase of 4%. While level 6 acceptances declined by 10%, level 7 acceptances increased by 8%.

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

Health and Welfare: Level 8 acceptances account for the vast majority (91%) of healthcare course acceptances. Between 2010 and 2011, level 8 acceptances increased by 1%, or 50 acceptances, primarily in medicine. At level 6 there was a small increase while level 7 acceptances declined by 15%, albeit from a small base.

Agriculture & Veterinary: Acceptances at levels 6 and 8 experienced a decline of 36% and 8% respectively although the numbers involved are small. Level 7 acceptances increased by 36%, primarily in agriculture and horticulture programmes.

CAO Acceptances (NFQ 6-8): Other Disciplines

Arts & Humanities: Acceptances in this discipline were predominantly at level 8. At over 10,200, the arts & humanities discipline accounted for 32% of all acceptances at level 8 in 2011 with numbers remaining unchanged since 2010.

Social Science, Business & Law: Declines occurred across all levels in 2011, with level 6 experiencing the highest percentage decline at 11%.

Services: The numbers of acceptances on services courses increased across all levels in 2011, with a 28% increase at level 8, particularly in sports related courses.

6.2.4 CAO Applicant Data 2012

CAO applicant statistics from February 1st 2012 give early indications of trends emerging for those potentially entering the higher education system in September 2012, 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 2012 include:

- The number of applicants to the CAO increased marginally between 2011 and 2012 to 71,648.

- Technology: While construction-related 1st preference applications at level 8 continue to decline, all other level 8 technology subjects increased since 2011, with computing increasing by 20% year-on-year (and by 74% since 2008). At level 6/7 increases occurred for science and computing courses.
- Health, Veterinary & Agriculture: Increases in the number of 1st preference applications for all level 8 healthcare subjects (excluding dentistry) resulted in an overall increase of 3% since 2011. Agriculture-related courses at level 8 also increased by 12%. At levels 7/6, both disciplines continue to experience increases.
- Other Disciplines: While the number of 1st preference applications for level 8 education and arts/humanities courses declined by 9% and 5% respectively, services saw an increase of 9% in the number of 1st preference applications since 2011 and of 59% since 2008.
- Student Statistics: While the number of mature students applying for higher education courses through the CAO system is down on 2011, the number of applicants who hold FETAC qualifications continues to increase.

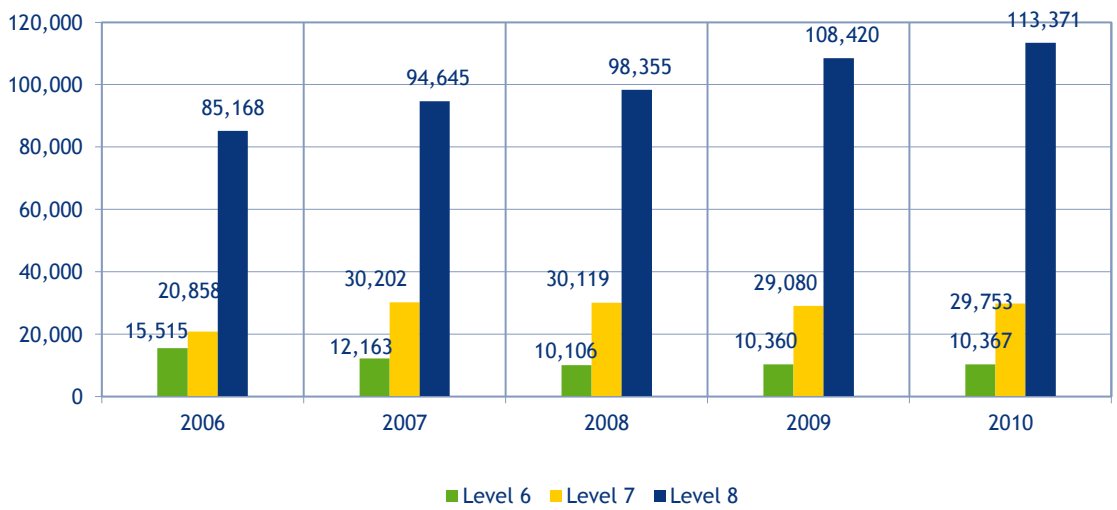
6.3 Undergraduate Enrolments

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 2006-2010. In 2010, there were 153,500 undergraduate students enrolled in Irish higher education, an increase of 26% and 4% on 2006 and 2009 respectively. These increases did not occur evenly across the three NFQ levels:

- **Level 6:** While no change occurred at this level between 2009 and 2010, the latest figures represent a 33% decline on 2006. A rise in the number of CAO acceptors in 2010 notwithstanding, an analysis of acceptance data trends would suggest that no significant change is likely to occur in the short term.
- **Level 7:** Enrolments at this level have remained relatively static since 2007 although recent increases in the number of CAO acceptances at this level have started to be reflected in enrolment figures with an increase of 2% between 2009 and 2010.
- **Level 8:** An increase of 5% occurred at this level between 2009 and 2010 and 33% since 2006. A levelling off of CAO acceptances since 2009 indicates that future rises are not expected in the medium term at this level.

Figure 6.2 Total Enrolments by level (6-8), 2006-2010



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 mode of study, gender and institution type attended (i.e. IoT vs university) and age.

Mode of Study

Across all levels in 2010, the majority of students were enrolled in full-time courses; level 8 had the highest share of full-time enrolments at 94% while level 6 had the lowest share at 59%. Level 6 courses also had the highest proportion of those studying part-time (35%) and through distance education (5%).

Table 6.3 Enrolments by Mode of Study, Level 6-8, 2010

	Level 6		Level 7		Level 8	
	2010	% of Total	2010	% of Total	2010	% of Total
Full-time	6,162	59%	23,687	80%	106,918	94%
Part-time	3,663	35%	5,370	18%	4,956	4%
Distance Ed/ E-Learning/ In-Service ed	542	5%	696	2%	1,497	1%
Total	10,367	100%	29,753	100%	113,371	100%

Source: HEA

Provider Type and Gender

- Level 6: Institutes of technology accounted for 84% of enrolments at this level in 2010. The number of enrolments in IoTs is down slightly (1%), while university enrolment numbers increased by 4%. Males accounted for 57% of all enrolments at this level.
- Level 7: IoTs accounted for 92% of level 7 enrolments with males accounting for 61% of all enrolments at this level; in the IoTs, males accounted for almost two thirds of enrolments. While IoT enrolment numbers increased by 3% since 2009, university enrolments declined by the same percentage.
- Level 8: The pattern observed for enrolments at levels 6 and 7 is reversed for level 8: almost three quarters of enrolments are in the university sector while more than one half of all student enrolments is female. Increases occurred across both provider types since 2009.

Table 6.4 Total Enrolments by Provider Type and Gender, Level 6-8, 2010

	Level 6			Level 7			Level 8		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
IoTs	5,261	3,494	8,755	17,316	10,092	27,408	16,756	17,182	33,938
Universities	654	958	1,612	915	1,430	2,345	35,207	44,226	79,433
Total	5,915	4,452	10,367	18,231	11,522	29,753	51,963	61,408	113,371

Source: HEA

Age

The majority of those enrolled in full-time education in the higher education sector are aged 22 or less, ranging from 67% at level 6 to 81% at level 8; on the other hand, the vast majority of part-time students were aged 23 or more (91% at level 6, 94% at level 8).

Table 6.5 Full-time/ Part-time Enrolments by Age, Level 6-8, 2010

	Level 6		Level 7		Level 8	
	Full-time	**Part-time**	**Full-time**	**Part-time**	**Full-time**	**Part-time**
17 and under	3%	2%	2%	0%	2%	0%
18	16%	0%	12%	1%	12%	0%
19	22%	1%	19%	2%	20%	1%
20	15%	2%	19%	3%	20%	2%
21	7%	2%	12%	3%	17%	1%
22	4%	2%	7%	2%	10%	2%
23-29	15%	26%	17%	26%	13%	26%
30+	17%	65%	13%	63%	7%	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 2010, 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 (28% of the total).

Table 6.6 Total Enrolments by Discipline and Level, 2010[35]

Discipline	Level 6 2010	% change 09-10	Level 7 2010	% change 09-10	Level 8 2010	% change 09-10
Engineering & manufacturing	1,266	1%	5,282	6%	6,637	11%
Construction	396	-37%	2,641	-20%	4,898	-8%
Computing	782	-6%	2,520	13%	4,811	11%
Science	462	8%	1,551	1%	12,363	6%
Total Technology	2,906	-8%	11,994	0%	28,709	6%
Agriculture/Veterinary	366	1%	907	6%	1,631	15%
Health & Welfare	1,334	-11%	3,100	9%	21,438	4%
Total Health, Vet & Agriculture	1,700	-8%	4,007	8%	23,069	5%
Arts & Humanities*	995	-12%	2,608	-9%	24,083	5%
Education	347	49%	197	137%	5,703	2%
Social Sciences, Business & Law	2,983	-12%	6,847	2%	29,556	3%
Services	1,436	133%	4,100	11%	2,251	5%
Total Other	5,761	7%	13,752	3%	61,593	4%
Total All	10,367	0%	29,753	2%	113,371	5%

Source: HEA

*Includes broad programmes and/or combined studies

Technology

The number of technology enrolments at level 8 increased by over 1,600, or 6%, between 2009 and 2010 despite declines in construction. This drop in construction numbers is set to continue in the medium term while CAO acceptance data indicates that engineering, science and computing enrolment figures are set to continue to rise. In contrast, level 6 enrolments declined by 8% and level 7 enrolments remained unchanged.

[35] This table is not directly comparable with that in the previous edition of Monitoring Ireland's Skills Supply which included only full- and part-time enrolments but not distance education enrolments

Health, Veterinary & Agriculture

Enrolments in level 8 health and welfare courses continue to rise, with a 4% increase between 2009 and 2010. Level 7 health and welfare enrolments also increased, by 9%, while a decline of 11% occurred at level 6. Enrolments in agriculture and veterinary courses increased across all levels, most notably at level 8 by 15%.

Other Disciplines

Increases occurred across all levels in these disciplines. At level 8 the 'other' category is primarily comprised of arts and humanities and social science, business and law enrolments, with increases year-on-year of 5% and 3% respectively. Enrolments in services increased across all levels particularly at level 6 which increased by 133% due in the main to an increased uptake on courses in culinary arts. At level 7, education enrolment numbers increased by 137% although the numbers involved are very small.

6.4 Undergraduate Output

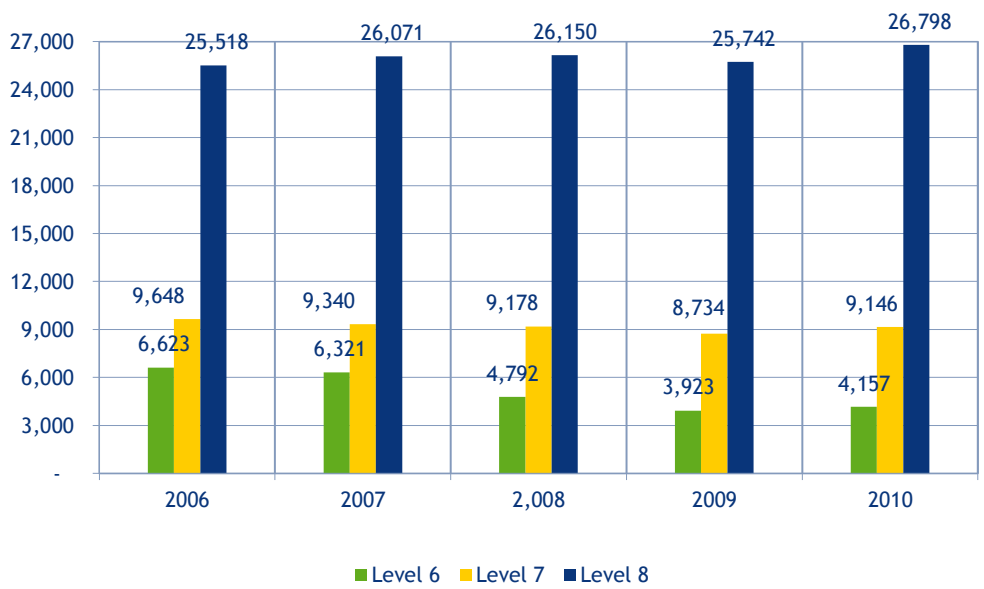
This sub-section examines both the latest graduation data and trends for the period 2006-2010. There were 40,100 graduates at levels 6-8 in 2010, an overall increase of 4% on the previous year. The breakdown by level remained unchanged with 67% of graduates at level 8, 23% at level 7 and 10% at level 6. While increases occurred across all levels between 2009 and 2010 it was not at a sufficient rate to return output numbers to numbers attained in 2006. This was primarily due to a significant drop in numbers graduating at level 6 over the five year period. Level 7 graduate numbers also declined, albeit at a smaller rate (5%), while graduate numbers at level 8 increased by 5%.

Level 6: The decline in graduate numbers at level 6 is expected to continue in the short term but may level off in the medium term due to a stabilisation of figures in the CAO acceptances and enrolments data.

Level 7: A peak in CAO acceptances in 2009 indicates that the 5% increase in graduate output experienced between 2009 and 2010 is likely to be short lived with declines expected to occur in the medium term.

Level 8: Graduate output at this level has risen steadily in recent years (apart from a slight decline in 2009). This is a result of continued growth in the numbers enrolling at this level. A significant jump in enrolments occurred in 2009 which should be reflected in graduate output levels by 2013. A levelling off is expected beyond this as CAO acceptance data has been static since 2009.

Figure 6.3 Total Graduate Output by level (6-8), 2006-2010



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 66% of all graduates in this sector. While IoT graduate output declined slightly since 2009, output from universities grew by 250, or 21%. Males were predominant in both sectors.

Level 7: The increase in output at this level between 2009 and 2010 was primarily for males in the IoT sector. Overall, the IoTs account for 79% of all level 7 graduate output.

Level 8: In 2010, two thirds of graduate output at this level was from the university sector. The increase in output since 2009 of 1,000 was relatively evenly distributed between both sectors. Although females dominate in the graduate output of both IoTs and universities with a 53% and 60% share respectively, the number of males graduating at this level increased more significantly across both sectors since 2009 resulting in a higher share of graduate output.

Table 6.7 Graduate Output by Provider Type, Gender and level, 2010

	Level 6			Level 7			Level 8		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
IoTs	1,556	1,184	2,740	4,082	3,116	7,198	4,253	4,883	9,136
Universities	806	611	1,417	767	1,181	1,948	7,006	10,656	17,662
Total	2,362	1,795	4,157	4,849	4,297	9,146	11,259	15,539	26,798

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 2009-2010. The 'other' category accounts for the majority of graduate output at both levels 6 and 7. While technology accounts for 20% of output at level 6 it accounts for 34% at level 7.

Table 6.8 Level 6 and 7 Graduate Output by Discipline, 2009-2010

	Level 6			Level 7		
Discipline	**2009**	**2010**	**% Change 2009-10**	**2009**	**2010**	**% Change 2009-10**
Engineering & manufacturing	399	295	-26%	937	1,072	14%
Construction	261	210	-20%	1,096	1,140	4%
Computing	175	192	10%	488	453	-7%
Science	132	120	-9%	410	440	7%
Total Technology	**967**	**817**	**-16%**	**2,931**	**3,105**	**6%**
Agriculture/Veterinary	74	109	47%	205	269	31%
Health & Welfare	461	669	45%	959	1,050	9%
Total Health, Vet & Agriculture	**535**	**778**	**45%**	**1,164**	**1,319**	**13%**
Arts & Humanities*	354	311	-12%	1,105	1,213	10%
Education	72	37	-49%	53	51	-4%
Social Sciences, Business & Law	1,250	1,185	-5%	2,576	2,434	-6%
Services	745	1,029	38%	905	1,024	13%
Total Other	**2,421**	**2,562**	**6%**	**4,639**	**4,722**	**2%**
OVERALL Total	**3,923**	**4,157**	**6%**	**8,734**	**9,146**	**5%**

Source: HEA

*Also includes studies in general programmes

Technology (Level 6 and 7)

At level 6, declines occurred across all technology subjects excluding computing which increased by 10%. The contrary was the case at level 7 where all technology subjects experienced increases excluding computing. CAO acceptances are showing declines at both levels 6 and 7 which are expected to be reflected in graduate output in the short term.

It should be borne in mind that the recent Springboard programme[36] is likely to boost output in science, technology, engineering and mathematics (STEM) subjects. There were 6,000 places offered to unemployed persons in higher education programmes leading to awards across levels 6-9 on the NFQ. These programmes are in areas of identified skills needs including among others the ICT, medical devices, green economy, bio-pharmachem, and food and beverage fields. However, the number of enrolments and graduations from these courses will not appear in the data until the 2011/2012 academic year for enrolment data and from 2012 for graduation data.

Health, Veterinary & Agriculture (Level 6 and 7)

Output from health and welfare subjects grew for levels 6 and 7 with an increase of 45% and 9% respectively. While CAO acceptances at level 6 increased between 2010 and 2011, acceptances at level 7 declined by 15% indicating that a drop in output is expected in the short term. Output for agriculture and veterinary courses increased at both levels but the numbers involved are relatively small.

Other Disciplines (Level 6 and 7)

Overall output in this discipline increased for levels 6 and 7 by 6% and 2% respectively. While most subjects experienced declines, services saw significant increases across both levels primarily due to courses in hospitality, sport and occupational health and safety. Growth in this subject is expected to continue due to further increases in the number of CAO acceptances while declines in the other subjects, excluding level 7 arts and humanities, are expected to persist.

Table 6.9 sets out the total number of level 8 graduates by discipline for 2009 and 2010.

[36] The Springboard programme was launched as part of the Government's Jobs Initiative in May 2011. Of the 5,875 higher education places on offer to eligible unemployed persons, 35% were in ICT, 25% in business/management, 12% in the green economy,12% in medical devices, 7% in bio-pharmachem, 5% in food and beverage, and 3% in international financial services. By December 2011, there were approximately 4,600 students enrolled on these programmes, with the first graduates expected to emerge by mid-2012. Almost one third of places on offer were at NFQ level 8, 26% were at level 7, 23% at level 6 and 20% at level 9. (HEA: Springboard 2011 First-Stage Evaluation (February 2012).)
Springboard 2012 makes provision for a further 6,021 places, of which 2,218 places will be in ICT-related programmes.

Table 6.9 Level 8 Graduate Output by Discipline, 2009 & 2010

Level 8 graduates	2009	2010	% Change
Engineering & Manufacturing	1,405	1,591	13%
Construction	1,321	1,546	17%
Computing	754	960	27%
Science	2,335	2,323	-1%
Total Technology	**5,815**	**6,420**	**10%**
Agriculture/ Veterinary	274	274	0%
Health & Welfare	4,618	4,687	1%
Total Health, Vet. & Agriculture	**4,892**	**4,961**	**1%**
Arts & Humanities	4,811	5,018	4%
Education	1,721	1,693	-2%
Social Sciences, Business & Law	7,919	8,126	3%
Services	584	580	-1%
Total Other	**15,035**	**15,417**	**3%**
OVERALL TOTAL	**25,742**	**26,798**	**4%**

Source: HEA

Technology (Level 8)

While all technology subjects experienced declines in 2009, all but science reversed this trend in 2010.

- Engineering: Output increased by 13% between 2009 and 2010, and with continued increases in CAO acceptances and enrolments, a continuation of this trend is expected in the medium term. One of the factors causing this increase is the introduction and expansion of energy-related courses.
- Construction: The significant decline in intake to construction courses has yet to be fully realised with a 17% increase in graduate output. A decline in output is expected to become apparent in the short to medium term.
- Computing: Declines experienced in recent years were reversed in 2010 with an increase in graduate output of 27% reflecting the recent surge in interest in computing subjects. The continued growth in CAO acceptance numbers and enrolment levels suggest a continuation of this trend in the medium term.
- Science: Graduate output in this subject remained unchanged between 2009 and 2010. Growth in the number of students accepting and enrolling in science courses indicates that output will remain strong in the medium term.

Healthcare, Veterinary & Agriculture (Level 8)

- Health and welfare: Overall, this discipline increased only marginally between 2009 and 2010. While output from nursing courses increased by 11%, further increases are not expected due to a decline in the number of CAO acceptances in 2009 with numbers remaining static since.
- Agriculture/Veterinary: There was no change in output levels although increases are expected in the short term due to a jump in the number of CAO acceptors since 2009.

Other Disciplines (Level 8)

- Arts & Humanities: This subject experienced a 4% increase in output, with modest increases expected to continue into the medium term.
- Education: Graduate output has fluctuated in recent years; the previous year's 9% increase was reversed in 2010 with a 2% decline. CAO acceptance levels and enrolment numbers indicate that a stabilisation of output numbers should occur in future years.
- Social Sciences, Business & Law: Stable enrolment and CAO acceptance numbers suggest little change is expected in overall output levels in the short to medium term.
- Services: A 30% increase in the number of CAO acceptances between 2010 and 2011 indicate that despite a decline of 1% in output in 2010, increases are expected in the medium term.

6.5 Non-Progression Rates in Higher Education

Not all of those who begin their studies in higher education will go on to successfully complete their course. In 2010, the HEA published an analysis of progression and non-progression rates of higher education students who entered the third level system in 2007/2008[37]. On average, 15% of all those who commenced their higher education studies in 2007/2008 were not present one year later. The report also found that non-progression rates vary considerably by NFQ level and field of study:

- Level 8 new entrants were more likely than those at levels 6 and 7 to progress to year two of their studies: the level 8 non-progression rate was 11%, compared to 25%-26%, on average, for levels 6 and 7.
- The lowest rates of non-progression were found for new entrants in the fields of education (4%) and healthcare (9%), meaning that new entrants in the education and healthcare fields were most likely to be present in year two of their courses.
- At 27%, on average, new entrants on computer science courses had the highest rates of non-progression.

Beyond the first year of higher education, non-presence rates tend to decline as students advance through their programmes of study: the non-presence rate for second year students falls on average

[37] A Study of Progression in Irish Higher Education (HEA 2010)

to 7% (compared to 15% for first years) and further again to 4% and 5% for third and fourth year students respectively.

6.6 International Comparison

This section outlines the findings of an OECD survey of education entitled 'Education at a Glance 2011' 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:

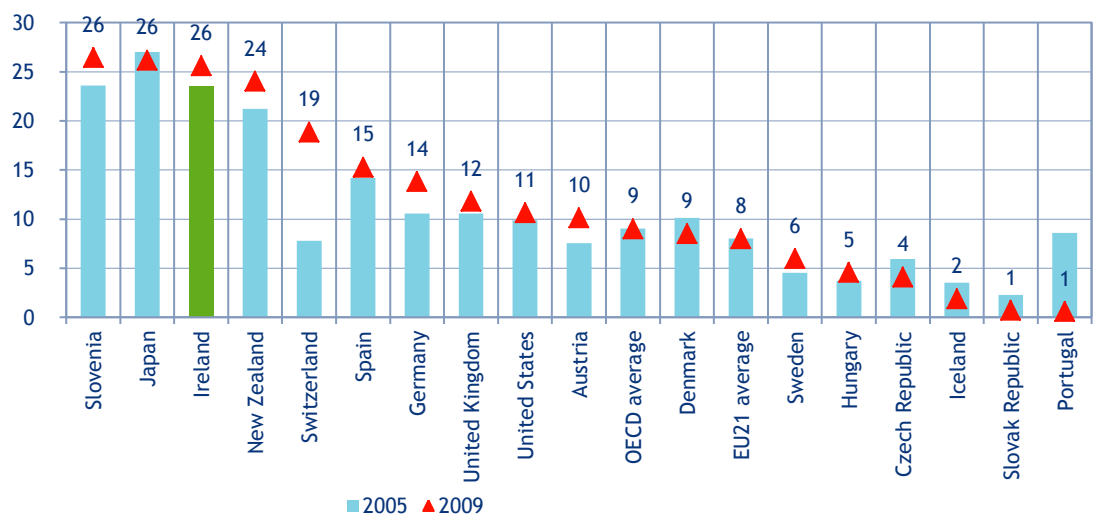
ISCED Level	Corresponds to :
Level 5: Tertiary Type B	Higher Certificate/Ordinary Bachelor Degree
Level 5: Tertiary Type A (First Degree)	Honours Bachelor Degree
Level 5:Tertiary Type A (Second or Further Degree)	Postgraduate Qualifications (except PhD)
Level 6: Advanced Research Qualifications	PhD

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 2005 and 2009. With 26% of the relevant age cohort graduating from Tertiary Type B courses in 2009, Ireland was ranked third amongst OECD countries with comparable data and well above the EU and OECD averages (8% and 9% respectively). Data over time shows that Ireland's graduation rate at this level increased by two percentage points between 2005 and 2009, up from 24%; at the same time the averages for the OECD and EU 21 remained unchanged.

Figure 6.4 Tertiary Type B Graduation Rates (%) in Selected Countries, 2005 & 2009



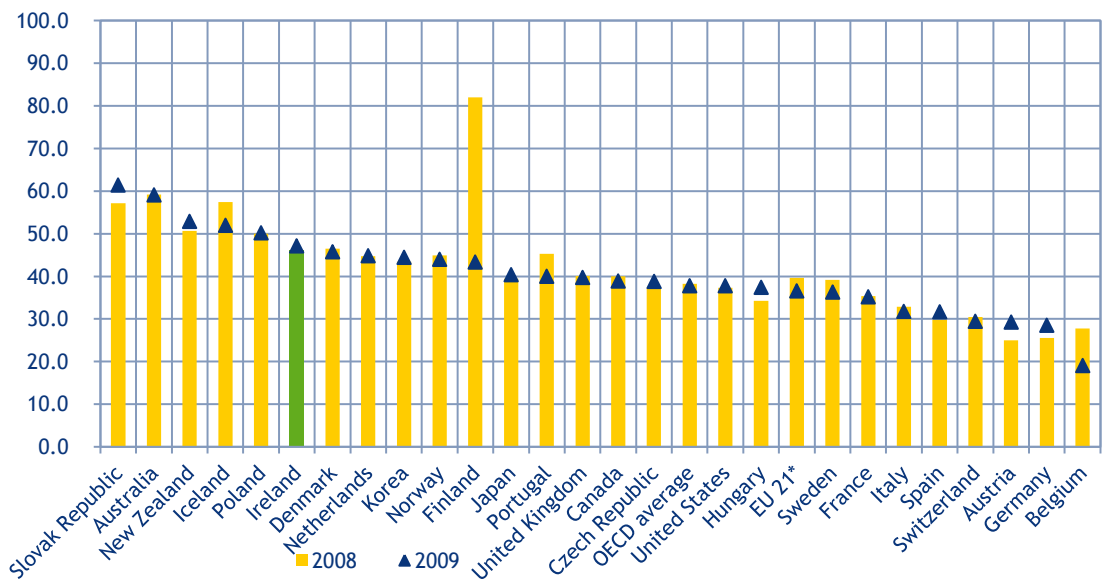
Source: Education at a Glance 2011 (OECD)

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). EU21 average refers to 2009 data only; for 2008, the EU average is for 18 states.

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. Trends in graduation rates at this level are limited as historical data is only available for the most recent years. Graduation data for Tertiary Type A (first degree) programmes presented here is therefore for 2008 and 2009. The data in Figure 6.5 shows that, at 47.1% in 2009, Ireland performed well above the OECD and EU 21 averages (37.8% and 36.6% respectively) in terms of the graduation rates at this level. In addition, Ireland's graduation rate increased slightly from 46.1% to 47.1% between 2008 and 2009.

Figure 6.5 Tertiary Type A (1st Degree) Graduation Rates in Selected OECD Countries, 2008-2009



Source: Education at a Glance 2011 (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).

*EU data for 2008 is based on EU 19 only

Chapter 7 Postgraduate Higher Education

Key Points

- Enrolments totalled approximately 34,000 in 2010, a 2% decline on 2009
- Graduate output: there were over 18,000 graduates in 2010, a 34% increase since 2006 and 13% on 2009 (the largest year-on-year increase in the period 2006-2010)
- Outlook: output is expected to continue to increase in the short term; beyond that, the decline in postgraduate cert/diploma enrolments in 2010 is likely to impact on overall output
- Engineering and manufacturing: graduate output increased by 69% between 2009 and 2010, primarily due to a doubling of output on masters courses. The recent decline in enrolment figures is likely to have an impact on output in the short term
- Construction: graduate output at this level increased by 16% year-on-year, although the numbers involved are small
- Computing: there was an overall increase in output of 31%, reversing recent declines in this subject. The decline in enrolments in 2010 will impact on output levels in the short term
- Science: despite slight declines at PhD level, output in this subject increased by 10%. This is likely to persist due to significant increases in enrolments in masters programmes

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.

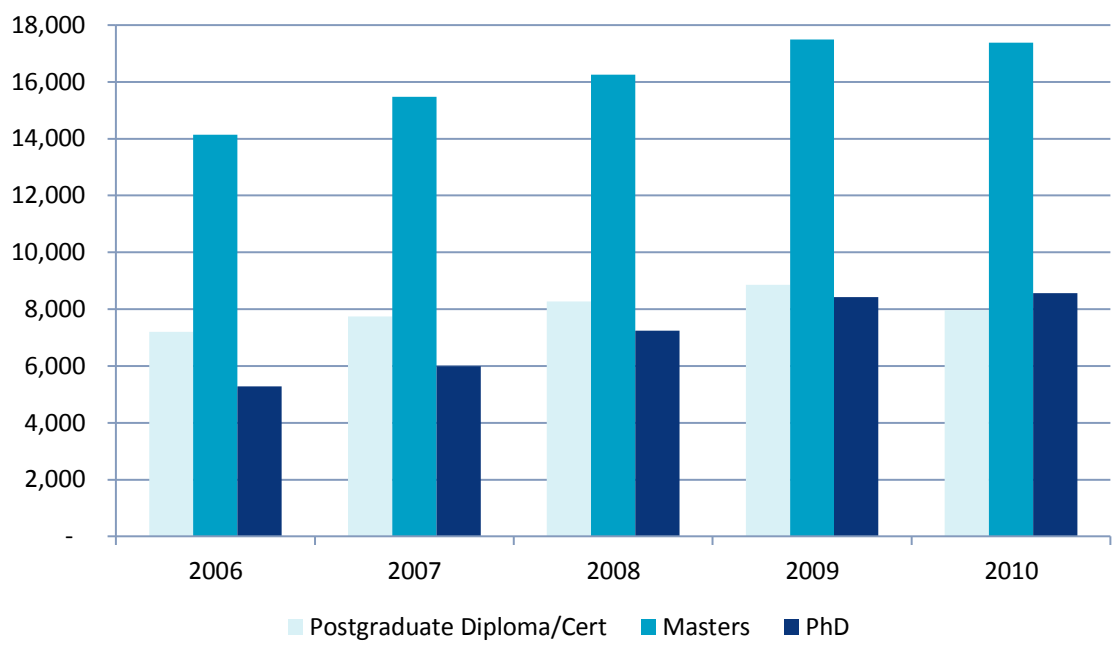
First, the total number of postgraduate students enrolled in higher education at levels 9 and 10 is provided. This is followed by an analysis of graduate output at these levels. Variables examined for both enrolment and graduation data include a discipline breakdown and student details (such as gender, 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 almost 34,000 postgraduate students enrolled in Ireland's universities and IoTs in 2010 (Figure 7.1). Enrolments on level 9 and 10 courses had been increasing steadily in recent years; however, there was a 2% decline between 2009 and 2010, mostly due to 900 fewer enrolments for postgraduate diploma/cert courses. Despite the overall decline, there was a small increase in the

number of PhD student enrolments while the number of students enrolled at masters level appears to have stabilised at approximately 17,400.

Figure 7.1 Level 9/10 IoT and University Enrolments, 2006-2010



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

In 2010, the number of males and females were evenly distributed for those enrolling on PhD programmes, while females dominated for postgraduate certs/diplomas and less so for masters programmes. In the IoTs, there were more males for each programme type while the reverse was true for universities. Overall, universities were the predominate supplier of postgraduate courses.

When compared with 2009, there were declines across both provider type and gender for postgraduate certs/diplomas. In contrast, all categories for masters and PhDs experienced increases with the exception of males in IoTs for both programme types.

Table 7.1 Enrolments by Provider Type and Gender, 2009 & 2010

	Postgraduate Certs /Diplomas				Masters				PhD			
	2009		2010		2009		2010		2009		2010	
	M	F	M	F	M	F	M	F	M	F	M	F
IoTs	486	411	379	311	2,048	1,754	1,963	1,827	299	207	288	231
Uni	2,866	5,097	2,578	4,703	6,411	7,285	6,167	7,424	3,979	3,934	4,017	4,035
Total	3,352	5,508	2,957	5,014	8,459	9,039	8,130	9,251	4,278	4,141	4,305	4,266

Source: HEA

Full-time/Part-time

- **Postgraduate certs/diplomas:** Despite a drop in overall enrolment levels in this programme type in 2010, the proportions studying full- and part-time have remained unchanged since 2009, with the majority studying part-time.
- **Masters:** The proportion of students studying full- and part-time in 2010 reverted to the same proportion as 2008, with 61% studying full time.
- **PhDs:** There was no change in the overall proportion of those enrolled on PhD programmes studying on a full time basis in 2010. There has only been a one percentage point increase in those studying full-time since 2008 despite an 18% increase in overall enrolment levels.

Table 7.2 Enrolments by Full-Time and Part-Time Status, 2008-2010

	Postgraduate Certs /Diplomas			Masters			PhD		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Full-time	53%	45%	45%	61%	62%	61%	87%	88%	88%
Part-time	47%	55%	55%	39%	38%	39%	13%	12%	12%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: HEA

Age

The share of students aged 30 and above increased across all programme types at postgraduate level, particularly at masters' level where an increase of five percentage points occurred. As a result, the share of students enrolled from the other age groups declined across all programme types.

Table 7.3 Enrolments by Age, 2009-2010

	Postgraduate Certs /Diplomas		Masters		PhDs	
	2009	2010	2009	2010	2009	2010
17-22	9%	8%	18%	16%	4%	3%
23-29	42%	39%	43%	41%	54%	53%
30+	49%	52%	38%	43%	42%	45%
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 2009 and 2010. While education retained the highest share of postgraduate certs/diploma enrolments in 2010 at 34%, health and welfare's share grew from 23% to 29% since 2009. Almost two fifths of all masters enrolments were in social science while a quarter of PhD enrolments were in science.

Table 7.4 Level 9/10 Enrolments in Higher Education by Discipline, 2009-2010

	Postgraduate Certs/Diplomas		Masters		PhD	
	2009	**2010**	**2009**	**2010**	**2009**	**2010**
Engineering & Manufacturing	222	120	1,328	1,169	943	924
Construction	130	97	393	359	191	201
Computing	370	275	1,490	1,004	533	492
Science	282	262	1,111	1,486	2,210	2,170
Total Technology	**1,004**	**754**	**4,322**	**4,018**	**3,877**	**3,787**
Agriculture/ Veterinary	30	28	98	112	185	176
Health & Welfare	2,031	2,288	2,154	2,171	1,198	1,238
Total Health, Vet. & Agriculture	**2,061**	**2,316**	**2,252**	**2,283**	**1,383**	**1,414**
Arts & Humanities*	414	313	2,748	2,672	1,461	1,462
Education	3,267	2,732	1,157	1,501	319	437
Social Sciences, Business & Law	1,858	1,740	6,623	6,558	1,300	1,402
Services	256	116	396	349	79	69
Total Other	**5,795**	**4,901**	**10,924**	**11,080**	**3,159**	**3,370**
OVERALL TOTAL	**8,860**	**7,971**	**17,498**	**17,381**	**8,419**	**8,571**

Source: HEA

*includes general, broad and combined programmes

Technology

- Engineering and manufacturing: Declines occurred across all programme types at postgraduate level in this discipline between 2009 and 2010, with numbers halving for postgraduate certs/diplomas.
- Construction: Overall construction postgraduate enrolment numbers were down from 2009, despite a slight increase in PhD students; however, the numbers involved are small.
- Computing: Declines occurred across all programme types, particularly at masters level with a 33% decline.
- Science: There was a 33% increase in enrolment levels for masters programmes between 2009 and 2010. Despite recent increases in PhD enrolment levels, 2010 saw a decrease of 2% occur. Postgraduate cert/diploma enrolment levels also declined, albeit from a smaller base.

The recent Springboard programme[38] is likely to boost output in science, technology, engineering and mathematics (STEM) subjects further. There were 6,000 places offered to unemployed persons in higher education programmes leading to awards across NFQ levels 6-9. These programmes are in areas of identified skills needs including the ICT, medical devices, green economy, bio-pharmachem, and food & beverage fields. However, the number of enrolments and graduations from these courses will not appear in the data until the 2011/2012.

Health, Agriculture and Veterinary

- Agriculture & Vet: There was no change in the overall enrolment levels for agriculture and veterinary courses between 2009 and 2010.
- Health & Welfare: This was the only subject which saw gains across all programme types, particularly for postgraduate certs/diploma enrolment which increased by 257, or 13%.

Other Disciplines

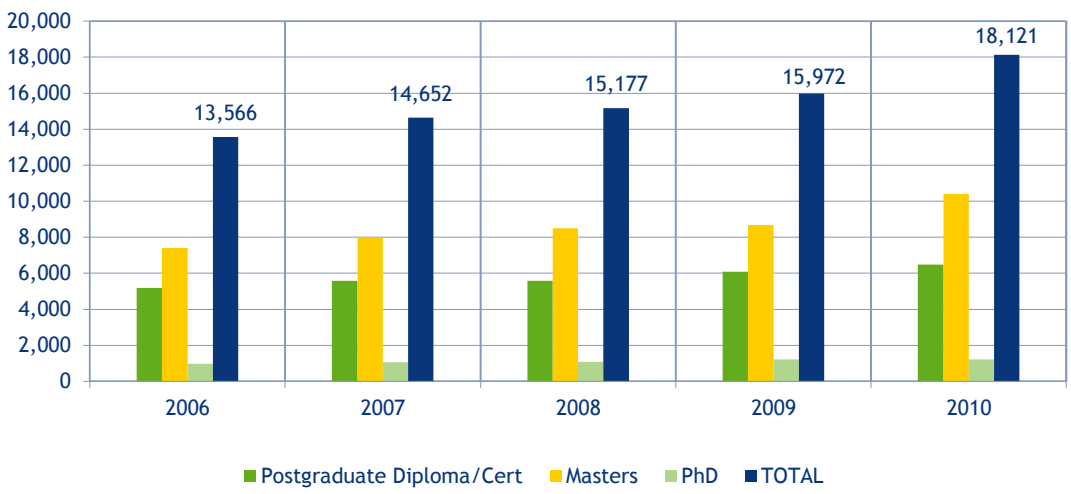
- Arts & Humanities: Declines occurred for both postgraduate certs/diplomas and masters programmes while PhD enrolments remained unchanged between 2009 and 2010.
- Education: While enrolment levels in postgraduate certs/diplomas continue to declined (by 16% since 2009), masters programme enrolments experienced further increases (by 30%), while PhD enrolments increased by 37%.
- Social science, business & law: Enrolments for PhD programmes increased by 8% while declines occurred for the other programme types.
- Services: Declines occurred across all programme types.

[38] The Springboard programme was launched as part of the Government's Jobs Initiative in May 2011. Of the 5,875 higher education places on offer to eligible unemployed persons, 35% were in ICT, 25% in business/management, 12% in the green economy,12% in medical devices, 7% in bio-pharmachem, 5% in food and beverage, and 3% in international financial services. By December 2011, there were approximately 4,600 students enrolled on these programmes, with the first graduates expected to emerge by mid-2012. Almost one third of places on offer were at NFQ level 8, 26% were at level 7, 23% at level 6 and 20% at level 9. (HEA: Springboard 2011 First-Stage Evaluation (February 2012).)
Springboard 2012 makes provision for a further 6,021 places, of which 2,218 places will be in ICT-related programmes.

7.3 Level 9/10 Graduates

A total of 18,121 students graduated with a postgraduate qualification in 2010 as shown in Figure 7.2, a 34% increase since 2006 and 13% on 2009 (the largest year-on-year percentage increase in the period 2006-2010). Of the total output, 36% were postgraduate certs/diplomas, 57% were masters and 7% for PhD programmes. While the proportion of postgraduate certs/diplomas dropped by two percentage points, masters output gained three percentage points.

Figure 7.2 Level 9/10 Graduate Output by Award Type, 2006-2010



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 proportion of graduates at postgraduate level (at 87%) and females accounted for 57% of all graduates at postgraduate level. The distribution of awards by provider type and gender in 2010 is detailed in Table 7.5. When compared to 2009 data, the findings are as follows:

- Postgraduate certs/diplomas: The level of female graduates in universities was the only category to decline year-on-year, with a 19% increase in the number of males graduating from universities
- Masters: The 20% increase in output from masters programmes was distributed across all categories but again most noticeably for males in universities
- PhDs: Increases occurred across all categories but the numbers involved are small

Table 7.5 Graduates by Provider Type and Gender, 2010

	Postgraduate Certs/Diplomas		Masters		PhD	
	Males	Females	Males	Females	Males	Females
IoTs	261	262	924	781	45	24
Universities	1,949	4,008	4,058	4,656	593	560
Total	2,210	4,270	4,982	5,437	638	584

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 2009 and 2010.

Table 7.6 Level 9/10 Graduations by Discipline, 2009-2010

	2009				2010				
Level 9/10 graduates	PG Cert/ Dip	Masters	PhDs	Total	PG Cert/ Dip	Masters	PhDs	Total	% Change 09-10
Engineering & Manufacturing	88	321	167	**576**	153	657	165	**975**	69%
Construction	98	157	21	**276**	101	202	17	**320**	16%
Computing	156	557	88	**801**	233	744	71	**1,048**	31%
Science	160	362	385	**907**	174	461	365	**1,000**	10%
Total Technology	**502**	**1,397**	**661**	**2,560**	**661**	**2064**	**618**	**3,343**	31%
Agriculture/ Vet	19	23	23	**65**	43	26	37	**106**	63%
Health & Welfare	1,413	1,092	129	**2,634**	1,551	1,058	189	**2,798**	6%
Total Health, Vet. & Agriculture	**1,432**	**1,115**	**152**	**2,699**	**1,594**	**1,084**	**226**	**2,904**	8%
Arts & Humanities*	237	1,584	194	**2,015**	261	1,730	179	**2,170**	8%
Social Sciences, Business & Law	1,182	3,894	163	**5,239**	1,237	4,719	133	**6,089**	16%
Education	2,587	462	30	**3,079**	2,600	558	46	**3,204**	4%
Services	155	215	10	**380**	127	264	20	**411**	8%
Total Other	**4,161**	**6,155**	**397**	**10,713**	**4,225**	**7,271**	**378**	**11,874**	11%
OVERALL TOTAL	**6,095**	**8,667**	**1,210**	**15,972**	**6,480**	**10,419**	**1,222**	**18,121**	13%

Source: HEA

*includes general and combined studies

Technology

- Engineering & manufacturing: Graduate output increased by 69% between 2009 and 2010, primarily due to a doubling of output on masters courses. The recent decline in enrolment figures is likely to have an impact on output in the short term.
- Construction: An increase of 16% occurred year on year, although the numbers involved are small.
- Computing: There was an overall increase in output of 31%, reversing recent declines in this subject. The decline in enrolments in 2010 will impact on output levels in the short term.
- Science: Despite slight declines at PhD level, output in this subject increased by 10%. This is likely to persist due to significant increases in enrolments in masters programmes.

Health, Vet and Agriculture

- Agriculture & Vet: There was an increase of 63% in output in this subject, albeit from a small base.
- Health & Welfare: Despite slight declines in masters output, this subject increased by 6%. As the only subject to experience increases in enrolments across all programme types in 2010, increases in output are expected to continue.

Other Disciplines

- Arts & Humanities: Continued increases in output at masters' level resulted in an overall increase of 8% in this subject.
- Social science, business & law: Output continues to increase (by 16% in 2010) due to a growth in the number of masters graduates. This subject accounted for 45% of all masters output and 34% of total postgraduate output in 2010.
- Education: Output increased across all programme types in 2010, particularly at masters level; this is expected to endure as masters enrolment levels continue to increase while postgraduate cert/diploma output is likely to decline based on enrolment trends.
- Services: This discipline continues to increase, albeit from a small base. A reversal is expected in the short term as enrolments dropped across all programme types in 2010.

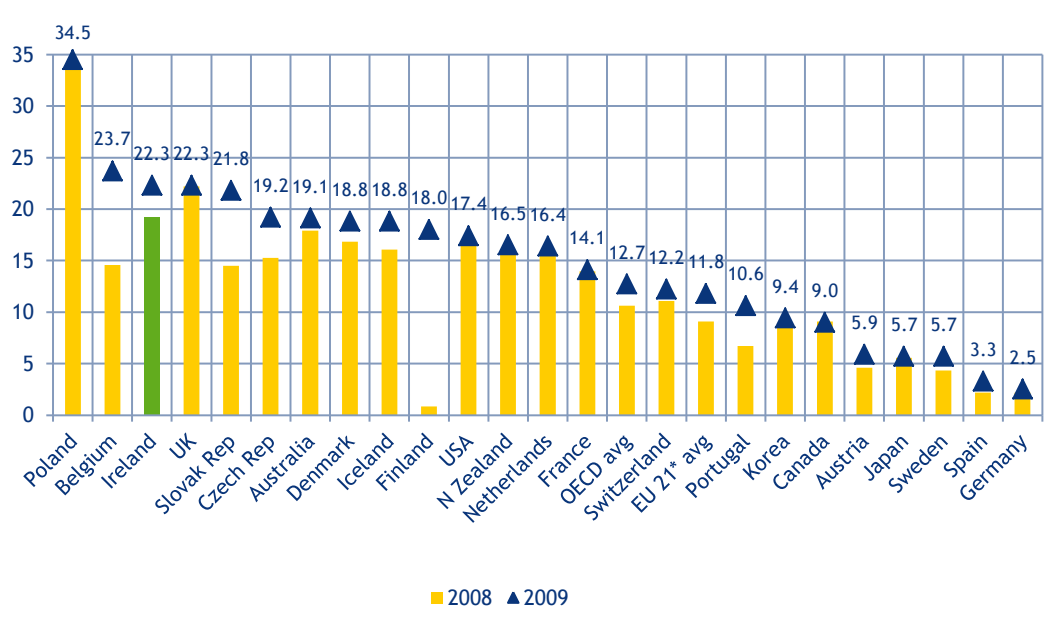
7.4 International Comparison

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)

Trends in graduation rates at Tertiary Type A (second degree) level are limited as historical data is only available for the most recent years. Graduation data for Tertiary Type A (second degree) programmes presented here is therefore for 2008 and 2009. Figure 7.3 compares Ireland's performance in terms of graduation rates at master degree level with that of selected OECD countries. At approximately 22.3% in 2009, Irelands' graduation rate at this level was almost twice the EU 21 (11.8%) and OECD averages (12.7%), ranking third overall, behind Poland and the UK.

Figure 7.3 Tertiary Type A (2nd Degree) Graduation Rates in Selected OECD Countries 2008-2009



Source: Education at a Glance 2011 (OECD)

*Note: the EU average in 2008 refers to the EU 19 only.

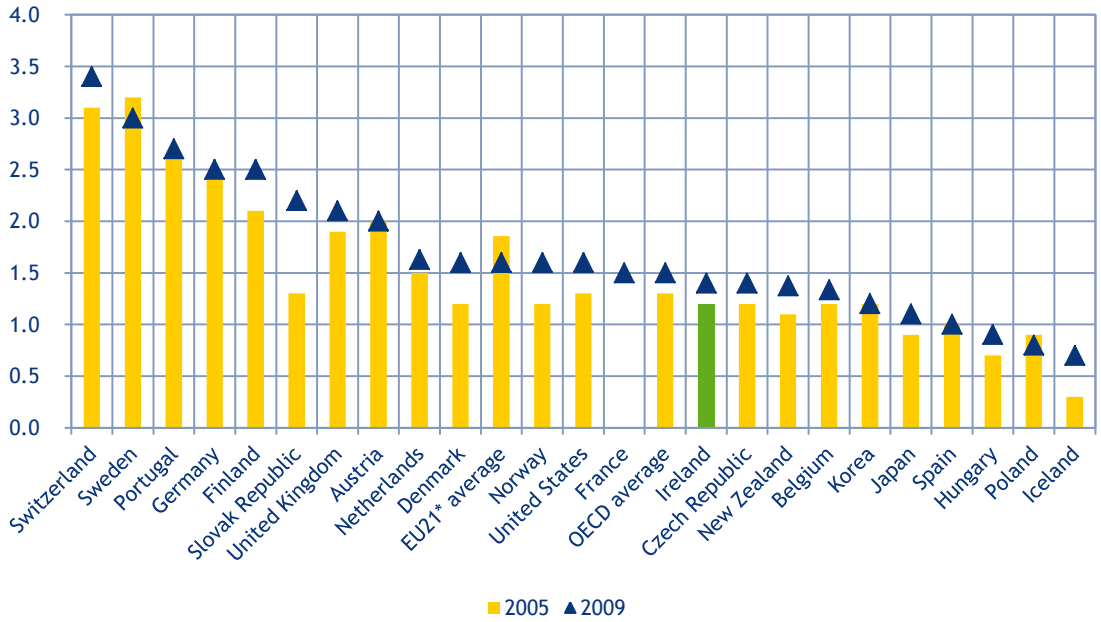
7.4.2 Advanced Research Degree

This section examines how Ireland compares internationally in terms of the number of PhD graduates to the population (i.e. graduation rate). PhD level education corresponds to advanced research degree level education in the OECD data.

In terms of advanced research degree graduates in 2009, Ireland lags behind the OECD and EU 21averages: the graduation rate at this level is 1.4% for Ireland compared to 1.5% and 1.6% for the OECD and EU21 averages respectively (Figure 7.4). Ireland also lags considerably behind the leading countries, Switzerland and Sweden, whose advanced research degree graduation rates (of at least 3%) are more than double that of Ireland.

Although Ireland's graduation rate for students with advanced research degree qualifications is comparatively low, the rate has increased slightly over the five year period, 2005-2009, going from 1.1% to 1.3%.

Figure 7.4 Advanced Research Degree Graduation Rates, 2004 & 2009



Source: Education at a Glance 2011 (OECD)

*EU average rate in 2005 is for EU 19 countries only
Data for France was available for 2009 only

Chapter 8 Where Do Graduates Go?

Key Points

- In 2010, 38% of level 8 graduates and 57% of level 9/10 graduates were in employment in Ireland nine months following graduation
- At 42%, level 8 graduates were more likely than level 9/10 graduates to have gone on to further study/training (12%)
- Between 2006 and 2010, the share of graduates seeking employment quadrupled for both level 8 and level 9/10 graduates; however, at 16% in 2010, the share of level 9/10 graduates seeking employment was considerably higher than that of level 8 graduates (8%)
- In quarter 4, 2011,the higher the educational qualifications, the more likely young adults are to be in employment, and the less likely they are to be unemployed
- The data shows that while the number of young graduates employed in high skilled areas is increasing, there is also an increased number of young graduates attaining employment in lower skilled occupations.

8.1 Introduction

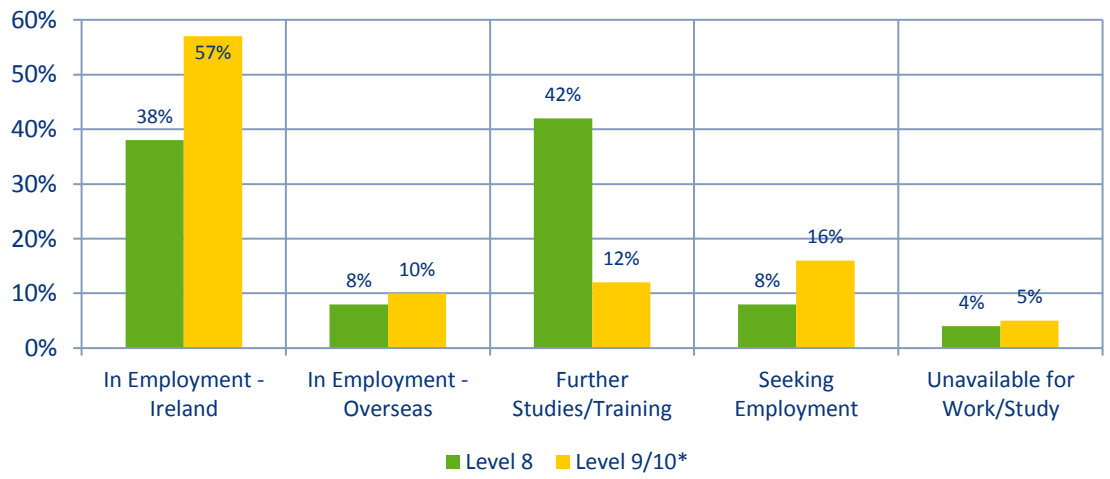
The focus of this chapter is on where graduates go after attaining a higher level qualification. Following a summary of the findings of the HEA's First Destination Survey (FDS) report, which surveys Irish graduates nine months after graduation, an analysis of the economic status of Ireland's young graduates (25-34-year olds) is outlined, based on the Central Statistics Office (CSO) Quarterly National Household Survey (QNHS).

8.2 First Destination Survey

The data presented here 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 is unavailable for recent years and is therefore excluded from the analysis here.

The first destination of the 2010 graduates at levels 8-10 on the NFQ is shown in Figure 8.1. Graduates at level 9/10 were more likely than level 8 graduates to be in employment with 57% employed in Ireland and a further 10% employed overseas (compared to 38% and 8% respectively for level 8 graduates). In contrast, at 42% level 8 graduates were more likely than level 9/10 graduates to have gone on to further study/training. However, the portion of level 9/10 graduate seeking employment was twice that of level 8 graduates (16% compared to 8%).

Figure 8.1 First Destination of Level 8-10 Higher Education Graduates, 2010



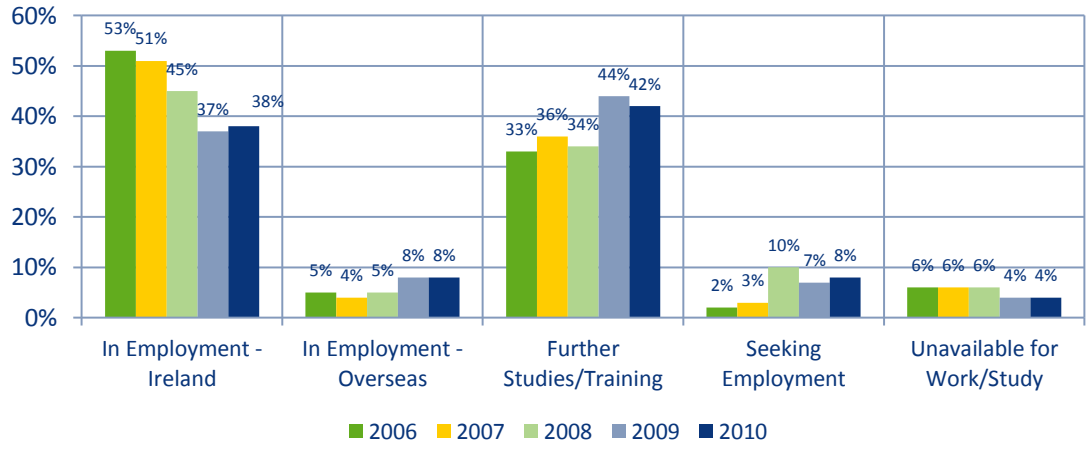
Source: HEA
*Level 9/10 includes Masters and PhDs only

8.2.1 First Destination by NFQ Level, 2006-2010

At 53%, the proportion of level 8 graduates in employment in Ireland was highest in 2006 (Figure 8.2). Since then, however, and coinciding with the downturn in the economy, this proportion has dropped to 38%; at the same time the share of level 8 graduates in employment overseas has increased, going from 5% to 8% over the five-year period. Nonetheless, while well over one half of all level 8 graduates were in employment (either in Ireland or overseas) before the economic downturn, fewer than one half (46%) were in employment in the 2010 survey.

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 employment increased significantly in 2008 and has remained considerably higher for 2010 graduates when compared with the peak of the economic boom in 2007.

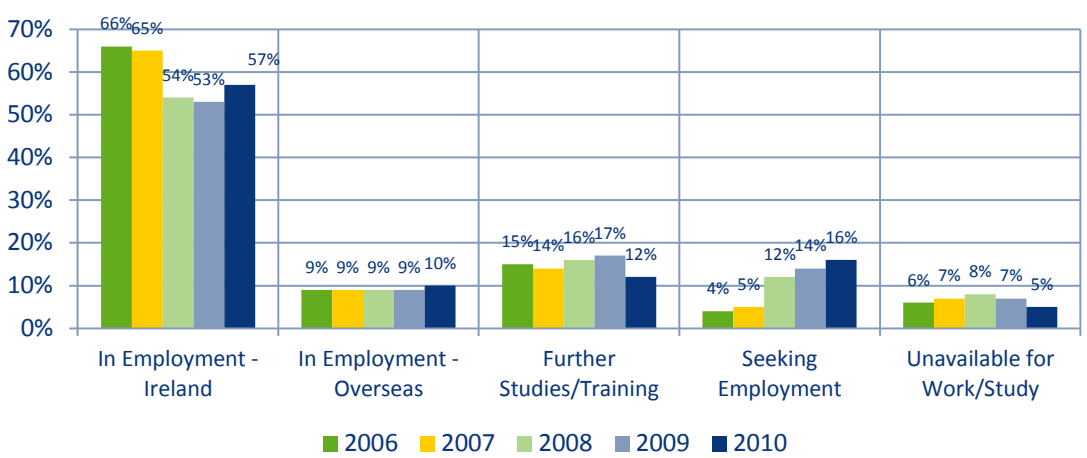
Figure 8.2 First Destination of Level 8 Graduates, 2006-2010



Source: HEA

While the majority of level 9/10 graduates were in employment in the nine months following graduation in each of the years examined, in 2010 graduates were less likely to be in employment than in 2006 (57% for 2010 compared to 66% for 2006); nonetheless the share of graduates at this level who were in employment increased for the first time in four years in 2010, going from 53% to 57% (Ireland) and from 9% to 10% (overseas). At the same time, the share of level 9/10 graduates seeking employment increased four-fold between 2006 and 2010 and at 16% reached its highest level in 2010.

Figure 8.3 First Destination of Level 9 Masters and Level 10 PhD Graduates, 2006-2010



Source: HEA

8.3 Graduates in the Labour Force

The focus of this section is on the profile of young graduates in Ireland based on the CSO's Quarterly National Household Survey (QNHS). 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. We examine the educational attainment of recent graduates 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 economic status (ILO) (i.e. in employment, unemployed, 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 4 2009 is used as the baseline for comparison while quarter 4 2011 is the latest data available.

8.3.1 Graduates in the Population

A total of 741,300 persons in the population in Ireland were aged between 25 and 34 years in quarter 4 2011 (see Table 8.1). Of these, over 231,000, or 31%, had attained a third level degree or above (corresponding to NFQ levels 8-10). A further 109,100, or 15%, had attained a third level non-degree qualification (corresponding to NFQ levels 6-7). While the total number of 25-34 year olds in the population declined by 4% between quarter 4 2009 and quarter 4 2011, the number of persons with level 8-10 (henceforth referred to as level 8+) qualifications actually increased by 9%; in contrast, the number of persons with level 6/7 qualifications dropped by almost 35,000, or 24%, with emigration likely to be a key factor in this decline.

Table 8.1 Population Aged 25-34 by Education Attainment, Quarter 4 2009 and Quarter 4 2011

Education Attainment	Total 2011	% of Total 2011	% change 09-11
Third level degree or above (NFQ Level 8+)	231,100	31%	9%
Third level non-degree (NFQ Level 6/7)	109,100	15%	-24%
Leaving Cert and FET(NFQ Level 4/5)	288,300	39%	0%
Lower Secondary or less (NFQ Level 3 or less)	90,900	12%	-4%
Other/Not stated	21,900	3%	-41%
Total	741,300	100%	-4%

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 231,100 level 8+ graduates in quarter 4 2011, 84% were in employment while 8% were unemployed. Despite a two percentage point drop in level 8+ graduate employment levels between quarter 4 2009 and quarter 4 2011, this group still retains the highest employment levels, and the lowest unemployment levels, of all education categories. This is followed by level 6/7 graduates with 78% in employment and 9% unemployed. In contrast, only 66% of those with a Leaving Cert or FET qualification and 37% of those with lower secondary education were in employment in quarter 4 2011. Overall, the data shows that the higher the education attainment, the more likely young adults are to be in employment and less likely to be unemployed.

Of those level 8+ graduates classified in the 'other' category in quarter 4 2011, 37% were students with a further 38% classified as being on home duties. Almost half (47%) of those in the 'other' category with an education attainment of level 6/7 are classified as on home duties.

In absolute terms, while the total number of 25-34 year olds in employment declined by 44,000 (or 8%) between quarter 4 2009 and quarter 4 2011, the numbers with level 8+ qualifications increased by 12,500 (or 7%).

Table 8.2 Population aged 25-34 by Education Attainment and Economic Status (ILO), Quarter 4 2009 and Quarter 4 2011

	Q4 2009				Q4 2011			
	In Employment	Unemployed	Other	Total	In Employment	Unemployed	Other	Total
Third level degree or above (NFQ Level 8+)	86%	6%	8%	100%	84%	8%	8%	100%
Third level non-degree (NFQ Level 6/7)	80%	8%	11%	100%	78%	9%	13%	100%
Leaving Cert and FET(NFQ Level 4/5)	69%	14%	17%	100%	66%	16%	18%	100%
Lower Secondary or less (NFQ Level 3 or less)	43%	19%	38%	100%	37%	25%	38%	100%
Other/Not stated	71%	9%	21%	100%	70%	9%	21%	100%
Total	73%	11%	16%	100%	70%	13%	17%	100%

Source: SLMRU analysis of CSO data (QNHS)

Graduates by Gender

In quarter 4 2011 males had a higher proportion of level 8+ graduates in employment than females at 86% and 84% respectively (Table 8.3). While the numbers of female graduates in employment grew by 10% between quarter 4 2009 and quarter 4 2011, the overall share dropped by two percentage points from 86% to 84%. Males with level 8+ qualifications had a higher share of persons unemployed than females, with 10% and 6% respectively.

The number of unemployed male graduates grew by 42% over the period while the number of unemployed female graduates increased by 30%. In the Other category, females accounted for almost all persons classified as being on home duties.

Table 8.3 Level 8+ Graduates aged 25-34 by Gender and Employment Status (ILO), Quarter 4 2009 and Quarter 4 2011

	Level 8+ Males			Level 8+ Females		
	Q4 2011	% of Total	% change 09q4-11q4	Q4 2011	% of Total	% change 09q4-11q4
In Employment	84,200	86%	3%	111,100	84%	10%
Unemployed	9,500	10%	42%	7,900	6%	30%
Other	4,600	5%	-18%	13,900	10%	33%
Total	98,300	100%	5%	132,900	100%	13%

Source: SLMRU analysis of CSO data (QNHS)

Graduates by year of education completion

Table 8.4 shows the distribution of level 8+ graduates aged 25-34 by the year in which they completed their highest level of education. While 39% of level 8+ graduates in the relevant age cohort had completed their highest level of education in the previous five years, only 79% of these were in employment in quarter 4 2011; in contrast, those who obtained their highest level of education prior to this were more likely to be in employment (88%). A similar pattern occurred in quarter 4 2009, although a higher proportion of newer graduates (from the previous five years) were in employment (83% compared to 79% in quarter 4 2011).

Table 8.4 Level 8+ Graduates aged 25-34 by Year of Highest Level of Education Completion and Employment Status (ILO), Quarter 4 2009 and Quarter 4 2011

	Quarter 4 2009		Quarter 4 2011	
Year highest education level completed	**% of Total**	**% in employment**	**% of Total**	**% in employment**
Previous Five Years	39%	83%	39%	79%
Six to 10 Years Previous	41%	89%	40%	88%
10 Years Plus	17%	87%	19%	88%
Other/Not stated	3%	86%	2%	88%
Total	100%	84%	100%	84%

Source: SLMRU analysis of CSO data (QNHS)

8.3.3 Economic Status of Graduates by Field of Learning

Table 8.5 compares the economic status of those with level 8+ qualifications by field of education between quarter 4 2009 and quarter 4 2011. Amongst the level 8+ graduates aged 25-34 years, the

social sciences, business and law discipline accounted for the largest share in both time periods. Increases occurred across all disciplines excluding agriculture and veterinary and the 'other' category, with social sciences, business and law experiencing the most significant increase in absolute terms (+9,200), while services and health and welfare had the highest percentage increases at 32% and 28% respectively.

People who had studied health and welfare or services subjects were most likely to be in employment in quarter 4 2011; this compares to quarter 4 2009, when those who had studied education subjects were most likely to be employed (93%). The share of those in employment declined across almost all disciplines with science, maths and computing and services the exceptions.

Table 8.5 Education Field of those Aged 25-34 with Level 8+ Qualifications and Employment (%), Q4 2009 and Q4 2011

	Quarter 4 2009		Quarter 4 2011	
	Total	In employment (%)	Total	In employment (%)
Education	19,300	93%	22,200	87%
Humanities and Arts	21,200	82%	22,900	71%
Social sciences, Business & Law	78,400	89%	87,600	85%
Science, Maths & Computing	23,400	80%	23,500	86%
Engineering, Manufacturing & Construction	26,700	82%	31,000	81%
Agriculture and Veterinary	4,200	*	2,300	*
Health and Welfare	21,000	92%	26,900	92%
Services	6,300	79%	8,300	90%
Other	11,000	83%	6,500	85%
Total	211,600	86%	231,100	84%

Source: SLMRU analysis of CSO data (QNHS)

* Numbers involved are too small to report

8.3.4 Gender Distribution of Graduates in Employment by Field of Learning

This subsection focuses on the gender breakdown of 25-34 year-old level 8+ graduates in employment. Of those in employment with education and health and welfare qualifications, 80% were females; in contrast, males were predominant in engineering and agriculture-related disciplines. Between the periods quarter 4 2009 to quarter 4 2011, the number of females employed increased across all education fields excluding humanities and arts and other; the most significant increase (+34%) over the period was for females employed with health and welfare qualifications. In the same period, the proportion of males employed with services qualifications increased by 65% although the numbers involved are small.

Table 8.6 Education Field of those Aged 25-34 with Level 8+ Qualifications in Employment by Gender, Quarter 4 2009 and Quarter 4 2011

	Males		Females	
Education Fields	% q4 2011	% change 09-11	% q4 2011	% change 09-11
Education	20%	-10%	80%	13%
Humanities & Arts	42%	15%	58%	-18%
Social sciences, Business & Law	42%	-1%	58%	14%
Science, Mathematics &Computing	58%	8%	42%	8%
Engineering, Manufacturing &Construction	73%	10%	28%	28%
Agriculture & Veterinary	*	*	*	*
Health & Welfare	20%	9%	80%	34%
Services	44%	65%	56%	40%
Other	42%	-43%	58%	-37%
Total	43%	3%	57%	10%

Source: SLMRU analysis of CSO data (QNHS)

* Numbers involved are too small to report

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[39]. This is followed by an occupational breakdown of all level 8+

[39] 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. This year's report uses the updated SOC 2010 occupational classification. 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.

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 8.7 examines the extent to which level 8+ graduates in the 25-34 age category are employed in areas related to their education qualification. Eighty two per cent of those with education qualifications or health and welfare qualifications worked in a similar field in quarter 4 2011. In contrast, only 13% of those who had gained level 8+ qualifications in humanities and arts were employed in this field; 45% were employed in areas relating to social sciences, business and law and a further 15% were employed in education-related occupations. Between quarter 4 2009 and quarter 4 2011, there was a drop of eight percentage points for those graduates with science related qualifications working in a similar field while engineering, manufacturing and construction and health and welfare both saw an increase of two percentage points over the same period.

Table 8.7 Share of Level 8+ Graduates Aged 25-34 in Employment in Occupation Fields Related to Their Qualification, Quarter 4 2009 and Quarter 4 2011

Occupation Fields	Q4 2009	Q4 2011
Education	82%	82%
Humanities & Arts	12%	13%
Social sciences, Business & Law	76%	72%
Science, Mathematics & Computing	50%	42%
Engineering, Manufacturing & Construction	54%	56%
Agriculture & Veterinary	*	*
Health & Welfare	79%	82%
Services	42%	53%

Source: SLMRU analysis of CSO data (QNHS)

* Numbers involved are too small to report

Table 8.8 details the occupational distribution of 25-34 year-olds in employment by education level for quarter 4 2009 and quarter 4 2011. The data shows that of all the level 8+ graduates in employment in this age cohort, 70% (almost 137,000 persons) were employed in managerial, professional or associate professional occupations in quarter 4 2011; in contrast, just 21% (or 69,000 individuals) of those aged 25-34 years with less than level 8 qualifications were employed in these occupations. While the number of level 8+ graduates increased for almost all of the occupational

groups between quarter 4 2009 and quarter 4 2011, declines occurred for all others in employment across all occupations excluding process, plant and machine operatives.

The number of level 8+ graduates employed in caring, leisure and other service occupations almost doubled between quarter 4 2009 and quarter 4 2011, primarily due to a significant increase in the number of those employed as care workers and home carers. The number of graduates employed in sales and customer service occupations increased by 3,200; almost all of this increase was for those working as sales and retail assistants. This indicates that while the number of graduates employed in high skilled areas is increasing, there is also a trend of increasing numbers of graduates attaining employment in lower skilled occupations.

Table 8.8 Occupational Breakdown of Those in Employment Aged 25-34 by Education Level*, Quarter 4 2009 & Quarter 4 2011

	Q4 2009		Q4 2011	
	Level 8+ Grads	All others in employment	Level 8+ Grads	All others in employment
Managers, Directors and Senior Officials	11,800	20,000	12,000	16,500
Professional Occupations	89,900	24,800	90,000	15,500
Associate Professional & Technical Occupations	29,200	42,500	34,900	36,900
Administrative and Secretarial Occupations	21,600	59,300	18,300	42,600
Skilled Trades Occupations	8,500	72,900	8,100	59,800
Caring, Leisure and Other Service Occupations	4,700	33,700	8,600	31,200
Sales and Customer Services Occupations	7,500	36,900	10,700	36,600
Process, Plant and Machine Operatives	2,800	31,200	4,800	33,200
Elementary Occupations	6,300	58,400	7,100	50,200
Total	**182,300**	**379,700**	**194,500**	**322,500**

Source: SLMRU analysis of CSO data (QNHS)

*where an occupation code is given

8.3.6 Sectoral Employment of Graduates

Table 8.9 below compares the distribution of level 8+ graduates by sector with all others aged 25-34 years at work.

Increases occurred in the number of level 8+ graduates employed across the majority of sectors over the period quarter 4 2009 and quarter 4 2011, while all others in employment saw employment

levels drop across all sectors excluding administrative and support services activities over the same period.

Level 8+ graduates were more likely than the remainder of this age cohort to be employed in the following sectors: information and communication (an additional 7,600 persons), financial, insurance and real estate activities (+3,200 persons), professional, scientific and technical activities (+10,600), education (+22,500 persons) and human health and social work activities (+400 persons).

Table 8.9 Sectoral Employment of those aged 25-34 with level 8+ Qualifications by ILO, Quarter 4 2009 & Quarter 4 2011

	Q4 2009		Q4 2011	
Sector	Level 8+ Grads	All others in employment	Level 8+ Grads	All others in employment
Agriculture, forestry & fishing	*	9,300	*	6,800
Industry	21,900	61,700	24,300	49,900
Construction	*	37,200	*	29,600
Wholesale & retail trade; repair of motor vehicles & motorcycles	13,900	65,300	16,800	59,100
Transportation & storage	*	19,400	3,200	16,100
Accommodation & food service activities	6,600	35,800	7,300	32,800
Information & communication	17,300	12,200	16,900	9,300
Financial, insurance & real estate activities	21,000	24,300	21,000	17,800
Professional, scientific & technical activities	21,400	13,100	20,200	9,600
Administrative & support service activities	4,600	14,000	5,000	15,000
Public admin & defence; compulsory social security	8,500	19,900	9,800	19,500
Education	30,300	10,800	29,900	7,400
Human health & social work activities	24,200	35,100	29,500	29,100
Other NACE activities	6,900	21,000	7,700	21,200
Total	182,800	380,500	195,200	323,900

Source: SLMRU analysis of CSO data (QNHS)

* Numbers involved are too small to report

Chapter 9 Private Education and Training Provision

Key Points

- There were approximately 4,500 awards made at independent, private third level colleges in Ireland in 2010; of these, 3,000 were major awards, with the remainder made up of special purpose awards and minor awards
- Of the 3,000 major awards, almost 2,000 were made at level 8, mostly for courses in either social science, business and law or education
- Private providers outside the independent third level sector, including professional institutes, accounted for in excess of 5,000 awards and qualifications in 2010; of these 4,100 were in the field of accountancy and finance

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 attempts to capture the number of individuals who obtained a qualification via private education pathways in 2010. First, higher education awards made to learners outside the university and institute of technology sectors are presented. This is then followed by data pertaining to qualifications gained either through professional bodies (e.g. Institute of Bankers, Irish Tax Institute) or selected private further education and training providers (non-FETAC awards). 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.

9.2 Private Sector Higher Education Graduates

Private independent colleges (e.g. Dublin Business School, Irish Management Institute, Hibernia College) offer programmes that are accredited by one or more awarding bodies. Such awarding

bodies include, among others HETAC, Irish universities[40] and/or foreign universities (usually UK). Appendix C1 provides a list of the colleges whose awards are included in this category. In addition, there exist other organisations for which education and training provision forms only one part of their service provision (such as IBEC, the Clanwilliam Institute, etc.) and whose awards are made by HETAC or other awarding bodies. Appendix C2 lists education and training providers included in this category.

Table 9.1 provides the number of higher education awards made in respect of programmes completed at independent colleges and recognised non-national higher education and training awards made at the Irish Management Institute (IMI). Of the 3,195 major awards made in 2010, over 2,000 (or 64%) were level 8 awards, made mostly in either the fields of social science, business and law or education. Level 7 had the second highest number of major awards, which at 731 accounted for 23% of all major awards. Minor and special purpose awards totalled 1,540 awards in 2010, the vast majority (79%) of which were made in the field of social science, business and law.

Table 9.1 Private Sector Higher Education Awards by Type, Field and Level, 2010

	Major Awards					Minor & Special Purpose	Grand Total
Major Awards (field)	**NFQ 6**	**NFQ 7**	**NFQ 8**	**NFQ 9**	**Total**	**NFQ 6-9**	**NFQ 6-9**
Education	0	215	736	0	**951**	80	**1,031**
Humanities & Arts	0	47	162	60	**269**	30	**299**
Social sciences, Business & Law	94	260	915	127	**1,396**	1,221	**2,617**
Science, Mathematics & Computing	0	3	31	61	**95**	0	**95**
Eng., Manufacturing & Construction	0	47	28	0	**75**	164	**239**
Health and Welfare	27	159	180	43	**409**	0	**409**
Services	0	0	0	0	**0**	45	**45**
Total	**121**	**731**	**2,052**	**291**	**3,195**	**1,540**	**4,735**

Source: HETAC; IMI (non HETAC awards)

9.3 Professional Institutes & Other Education & Training Providers

This section details the number of awards made to learners studying through

- professional institutes (e.g. Institute of Bankers)
- selected further education and training (FET) private education providers (i.e. City & Guilds and ITEC qualifiers).

Although some of the awards presented in this section are either placed on or aligned with the National Framework of Qualifications (e.g. HETAC awards, ACCA) or the UK equivalent

[40] Awards by Irish universities are included in the HEA data presented in Chapters 6 and 7 of this report and have therefore been excluded from the analysis in this section.

(Qualifications and Credit Framework for England and Northern Ireland), the majority are not. Therefore, the data in this section has been categorised, in consultation with the data providers as further education and training (FET), undergraduate level or postgraduate level.

The data in Table 9.2 details the number of awards and qualifications made to those studying through professional institutes (e.g. Institute of Bankers) and selected private FET colleges.

Almost 4,800 learners gained a qualification in 2010 through professional bodies or selected FET. Of these, 55% were at postgraduate level, 41% undergraduate level and the remaining 4% in further education and training. At over 4,100, accountancy and finance made up the vast majority of awards (86% of the total); of these, just over one half of the qualifications gained were at postgraduate level. Social science, business and law qualifications, which totalled 477, were concentrated in law.

Table 9.2 Qualifications from Professional Institutes and Selected FET Providers Qualifications, 2010*

Subjects	FET	Under-graduate	Post-graduate	Total
Technology (eng. & computing)	111	-	-	111
Social science, business & law	1	-	476	477
Accountancy & Finance	-	1,956	2,150	4,106
Health & welfare	7	-	-	7
Services	78	-	-	78
Total	**197**	**1,956**	**2,626**	**4,779**

Source: Irish Auditing and Accounting Supervisory Authority (IAASA), Irish Tax Institute, The Law Society, Institute of Bankers, NQAI (for City & Guilds and ITEC)

*Some data from 2011 (City & Guilds, ITEC)

Chapter 10 Irish Students Abroad

Key Points

- In 2009, there were over 17,500 Irish-domiciled students enrolled in higher education programmes in other OECD countries, almost 96% of whom were enrolled in courses in English speaking countries (e.g. UK, USA, Australia, etc.)
- Three quarters of these students were enrolled in Tertiary Type A programmes (e.g. hons degree/masters); advanced research degree programmes (e.g. doctoral degree programmes) accounted for 6%
- When compared to 2008, the number of Irish domiciled students enrolled in higher education programmes abroad increased by 3% (or more than 400 additional students)
- The number of Irish domiciled students who accepted a place for higher education studies in the UK declined to its lowest level in several years in 2011: at 2,336 acceptances, the number in 2011 was approximately one fifth lower than in 2010
- Almost one half (more than 1,000) Irish-domiciled acceptors in the UK were for health, agriculture and veterinary courses
- Almost 6,500 Irish domiciled students graduated from UK higher education in 2011; of these, more than 1,830 were in technology related subjects; 1,600 were in social studies, business and law; 1,400 were in health, vet and agriculture
- In 2009/2010 the number of ERASMUS students reached their highest number to date: 2,128 students went abroad, of which 528 were company placement students.

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[41]. 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 (UCAS)[42]. The final section, using data provided by the Higher Education

[41] International student data excludes numbers relating to those undertaking shorter, temporary courses as part of international exchange programmes such as ERASMUS.
[42] UCAS is the organisation responsible for managing applications to higher education courses in the UK and is similar to the CAO in Ireland.

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).

There were over 17,500 Irish students enrolled in higher education programmes in other OECD countries in 2009, 96% (almost 16,800) of which were in English-speaking countries (Table 10.1). The UK had the highest number with a total of 15,360. The United States was the second most popular destination for Irish domiciled students, with more than 1,000 enrolments in 2009.

As in preceding years, approximately three quarters of Irish students abroad in 2009 were enrolled on Tertiary Type A programmes, while 12% were enrolled on Tertiary Type B programmes (mostly in the UK) and 6% each were on advanced research degree programmes (e.g. doctoral programmes) and unspecified programmes.

When compared to 2008, the number of Irish domiciled students enrolled in higher education programmes abroad increased by 3% (or more than 400 additional students), partially reversing the 5% decline observed the preceding year where there were almost 900 fewer Irish domiciled students abroad compared to 2007. In absolute terms, the largest increase occurred in the number of students enrolled on Tertiary Type A programmes: there were more than 500 additional enrolments (+4%) at this level in 2009 compared to 2008; this was followed by a 7% increase in the number of advanced research programme enrolments (+76 students). In contrast, the number of Tertiary Type B enrolments declined by 9% (or more than 200 fewer enrolments).

Table 10.1 Irish Students' Enrolments in OECD Countries*, 2009

Country	Tertiary A	Tertiary B	Advanced Research	Unspecified	Total
United Kingdom	12,290	2,030	1,040	-	15,360
United States	-	-	-	1,042	1,042
Germany	318	-	-	-	318
Australia	190	3	25	-	218
Canada	89	3	15	-	107
Spain	92	11	7	-	110
New Zealand	21	16	16	-	53
Others**	314	8	23	-	345
Total	**13,314**	**2,071**	**1,126**	**1,042**	**17,553**

Source: OECD online database

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

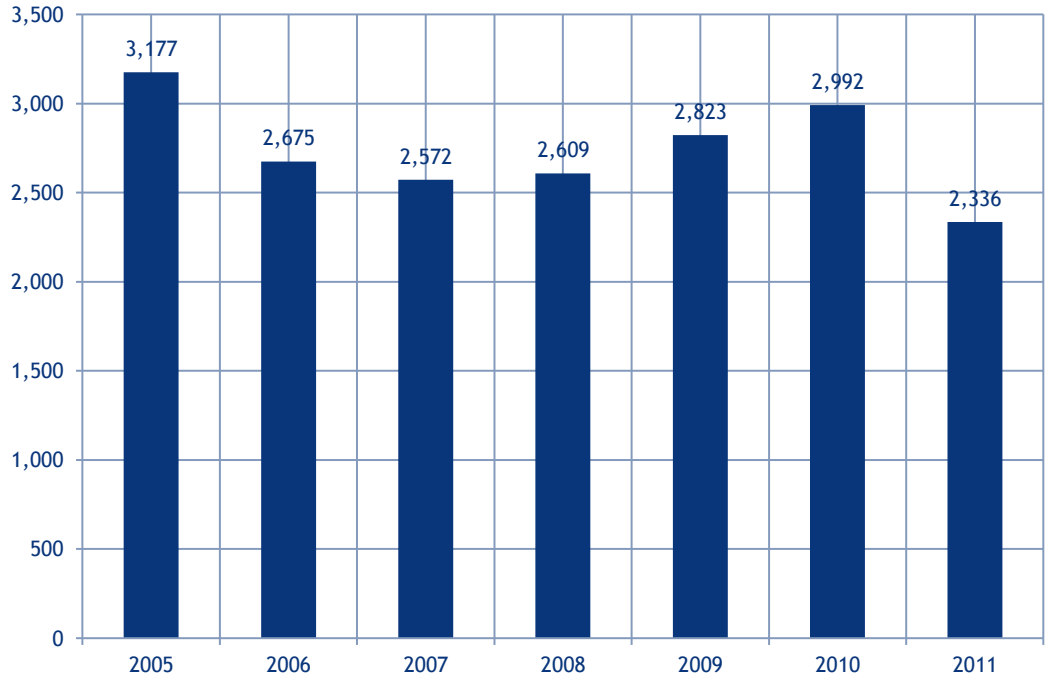
10.3 Irish Domiciled Students in the UK

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. First, the number of Irish students who accepted an offer of a place to study at higher education institutions in the UK through the Universities and Colleges Admissions Service (UCAS – comparable to the CAO in Ireland) is provided. This is followed by the number of students qualifying from UK universities.

10.3.1 UCAS Acceptors

Figure 10.1 shows that, following annual increases each year since 2008, the number of Irish domiciled students who accepted a place for higher education studies in the UK declined to its lowest level in several years in 2011, with 2,336 acceptances. This decline of more than 20% in the number of acceptances is thought to be linked with increased fees at some UK higher education institutions.

Figure 10.1 Republic of Ireland Domiciled UCAS Acceptors, 2005-2011



Source: UCAS

Table 10.2 shows the distribution of UCAS acceptors in 2010-2011 by discipline.

With more than 1,000 acceptances in 2011, almost one half of all Irish domiciled acceptors accepted a place to study health, agriculture and veterinary science courses in the UK. The majority were for subjects allied to medicine, which includes physiotherapy, nursing, pharmacy, etc. courses. Over a fifth of acceptances (over 500) were for technology related courses, while a third were for 'other courses' and included arts, humanities and combined courses and social science, business and law courses in almost equal numbers.

With the exception of agriculture and vet courses, there were declines in the number of Irish domiciled acceptances for all course categories between 2010 and 2011. The sharpest declines were for architecture, building and planning courses and arts, humanities and combined courses where the number of acceptors declined by 101 and 159 respectively.

Table 10.2 Republic of Ireland Domiciled UCAS Acceptors by Discipline, 20010-2011

	2010	2011	2011-10 % change
Engineering & Technology	239	142	-41%
Architecture, Building & Planning	162	61	-62%
Science & Computing	378	318	-16%
Total Technology	**779**	**521**	**-33%**
Medicine & Dentistry	92	48	-48%
Subjects Allied to Medicine	996	899	-10%
Agriculture and Vet	91	93	2%
Total Health, Vet & Agriculture	**1,179**	**1,040**	**-12%**
Arts, Humanities & Combined	521	362	-31%
Education	88	53	-40%
Social Science, Business & Law	425	360	-15%
Total Other	**1,034**	**775**	**-25%**
Overall Total	**2,992**	**2,336**	**-22%**

Source: UCAS

In 2011, 40% of the UCAS acceptors who were domiciled in Ireland were aged 21 or over. The remainder were aged 20 or under. The majority of Irish-domiciled acceptors were female, making up almost two thirds of the total. Over 60% of Irish-domiciled students accepted a place in higher education institutions in England; a further 16% each in Scotland and Northern Ireland; the remaining 7% were for courses in higher education institutions in Wales.

10.3.2 Irish Domiciled Graduates in the UK

The number of Irish domiciled students who graduated from courses at UK higher education institutions between 2007 and 2011 is provided in Table 10.3. At almost 6,500 in 2011, the number of Irish students graduating with a third level qualification (undergraduate or postgraduate) in the UK reached its highest level over the period 2007-2011, with overall numbers rising by almost a fifth when compared to 2007. The key data for 2011 shows that

- social studies, business and law had the highest number of Irish domiciled graduates (almost 1,600 graduates, or 24% of the total)
- more than a fifth of graduates (1,400 students) were in the health, vet and agriculture field
- a further 28% of graduates were in technology related subjects (science, computing, engineering and construction related subjects) accounting for 1,830 students.

While the overall number of graduates grew by 10% (an additional 600 graduates) between 2010 and 2011, there were particularly sharp increases for fields such as social studies, business and law which rose by almost a half (or 500 graduates) and engineering and technology, which grew by more than a third (an extra 165 graduates). In contrast, although the numbers involved are comparatively

small, there were declines for the fields of education (-15%, or 150 fewer students), architecture, building and planning (-11%, 55 students) and health, vet and agriculture (-1%, 15 students).

Table 10.3 Irish Domiciled 3rd Level Graduates in UK Higher Education 2007-2011

Discipline	2007	2008	2009	2010	2011	% Change 2007-11	% Change 2010-11
Health, vet and agriculture	1,174	1,265	1,455	1,430	1,415	21%	-1%
Science & computing	779	725	685	690	745	-4%	8%
Engineering & technology	521	450	455	490	655	26%	34%
Architecture, building & planning	433	395	455	485	430	-1%	-11%
Social studies, business & law	963	990	1,100	1,050	1,565	63%	49%
Arts, humanities & combined studies	774	685	630	695	770	-1%	11%
Education	859	810	825	1,015	865	1%	-15%
Total	5,503	5,320	5,605	5,855	6,445	17%	10%

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 company work placement for three to 12 months in one of 30 other European countries as part of their studies[43]. Approximately 2.3 million students Europe-wide have benefited from the programme since its inception in 1987/88; of these, 30,000 students were from Irish higher education institutions. 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.

The numbers of outgoing Irish students over the period 2004-2009 is detailed in Table 10.4. There were, on average, 1,550 outgoing students from Irish higher education institutions annually between 2004/05 and 2006/07. The number the rose by 19% in 2007/08, due largely to the introduction of the company work placement programme as part of ERASMUS[44], when approximately 300 Irish students went abroad to work as part of their course (the number of students at foreign universities

[43] ERASMUS participating institutions are not confined to the EU. ERASMUS includes Norway, Iceland and Turkey.
[44] 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.

actually declined slightly to 1,514). In 2009/2010 the number of ERASMUS students reached their highest number to date: 2,128 students went abroad, of which 528 were company placement students.

In 2009/10, approximately a quarter of all students went to France, followed by Spain (18%) and Germany and Austria (14%). The most notable changes observed since 2004/05 included a fall in the share going to France from 31% to 24% (although the numbers have increased slightly) while the share going to the UK increased to 11% (up from 3% in 2004/05).

Table 10.4 Outgoing ERASMUS Students from Ireland by Destination Country, 2004-2010

Destination Country	2004/05	2005/06	2006/07	2007/08*	2008/09*	2009/10*
France	482	479	439	464	473	514
Spain	271	274	271	324	316	391
Germany & Austria	259	271	253	245	252	251
UK	52	43	43	158	224	238
Netherlands	81	82	71	68	86	121
Italy	87	87	94	102	84	99
Others**	340	331	353	456	401	514
Total	**1,572**	**1,567**	**1,524**	**1,817**	**1,836**	**2,128**

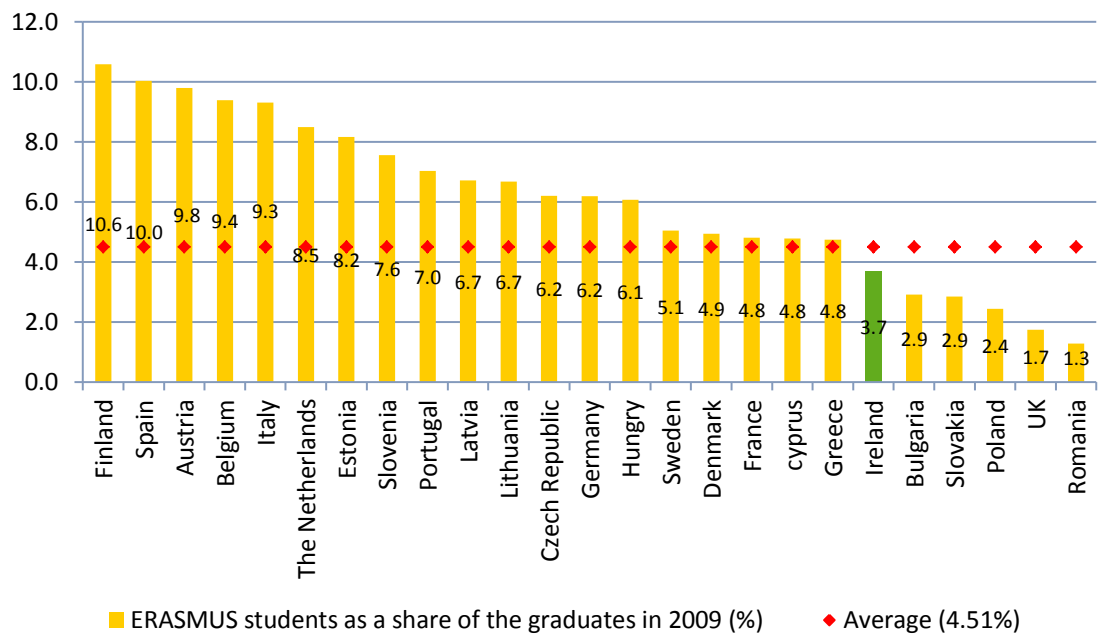
Source: European Commission

*Numbers include students going abroad to higher education institutions and on work placements.
**Includes: Other EU countries as well as Iceland, Liechtenstein, Norway, Croatia, and Turkey.

10.5 ERASMUS students

Figure 10.2 shows ERASMUS students in 2009 as a proportion of the graduates, by country. Ireland has one of the lowest rates Europe-wide for ERASMUS participation. With just 3.7% of students participating in ERASMUS programmes in 2009/2010, Ireland ranked well below the EU average. Nonetheless, the share has increased from 3.06% in 2008/09.

Figure 10.2 ERASMUS students as a share of graduates for selected EU countries, 2009



Source: European Commission (ERASMUS statistics)

Despite the comparatively low take-up rate for ERASMUS programmes in Ireland, students from Ireland participating in ERASMUS abroad tend to spend longer periods abroad: the average duration of a students' stay was slightly higher at 6.7 months (compared to the EU average of 6.04 months). Only students from Spain and the UK spend longer, on average, on ERASMUS programmes (7.5 months and 6.9 months respectively), while the share of participating students from Italy is comparable to that of Ireland (also 6.7 months).

Chapter 11 Lifelong Learning and the Adult Population

Key Points

- Approximately 107,000 persons aged 25+ participated in lifelong learning (LLL) in quarter 4 2011, representing 4.4% of the adult population
- Over the period quarter 4 2006 to quarter 4 2011, the number of LLL participants increased by more than a third (or almost 28,000 learners)
- In quarter 4 2011, female LLL participants outnumbered males, with females at 56,000 learners making up a 52% share of the total; however, the gender gap has narrowed slightly since quarter 4 2006, when females made up a 56% share
- In quarter 4 2011, the likelihood of participating in LLL decreased with age: at 8%, the share of 25-34 year olds in LLL was double that of 35-44 year olds and two and a half times that of 45+ year olds
- At 6.5%, third level graduates were more than four times more likely to participate in LLL than those with lower secondary or less educational qualifications (1.4%)
- Of the total 107,000 LLL participants in quarter 4 2011
    - 44% were in the economically inactive category (52,000 persons)
    - 35% were in full-time employment
    - 12% were in part-time employment
    - 9% were unemployed

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 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 2011; for comparison purposes data from quarter 4 2006 is also

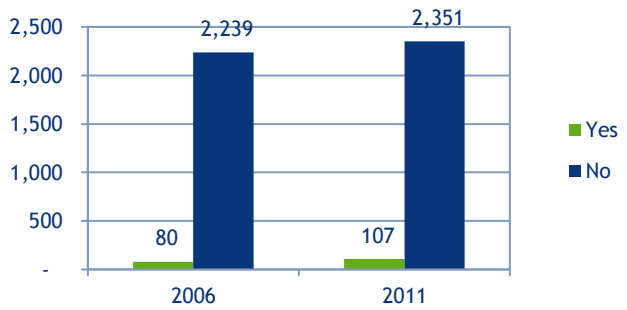
included. Note that some of the learner data captured in this section were also included in the enrolment and awards/graduation data in Chapters 2-9 (which included all age-groups).

In this report, the term 'lifelong learning' applies to those pursuing formal education only; it excludes non-formal education[45]. 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[46] and Eurostat 2011[47]). 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 aged 25+ of almost 2.5 million in quarter 4 2011, over 107,000 participated in lifelong learning (LLL) in the four weeks prior to the survey (Figure 11.1). This represents a rise of more than a third (more than 27,700 individuals) when compared to the almost 80,000 LLL participants observed in quarter 4 2006. Excluding those who did not answer the question in quarter 4 2011 (approximately 1,500 individuals), the LLL participation rate of the adult population was 4.4%, an increase on the 3.4% observed in quarter 4 2006[48].

Figure 11.1 Population (25+ years) by LLL Participation (000s), Quarter 4 2006 & Quarter 4 2011



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

[45] **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.

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

[47] Eurostat (2011) Lifelong Learning Statistics. Available at http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Lifelong_learning_statistics

[48] This compares to the lifelong learning participation rates of 6.7% and 25% cited by Eurostat (2011) and the CSO (2010): the 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).

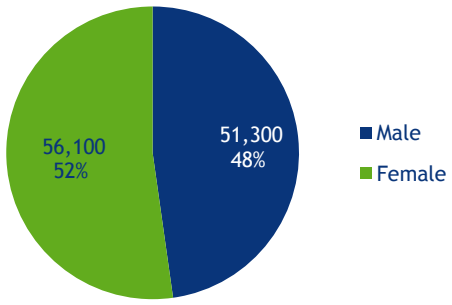
11.3 Lifelong Learning by Gender

Female LLL participants outnumber males. As shown in Figure 11.2, of the 107,000 LLL participants in quarter 4 2011, 52% were female, amounting to 56,000 persons; 48% were male (approximately 51,000 persons). When compared to quarter 4 2006, the numbers of both males and females participating in LLL increased, although, at 46%, the growth for males was stronger than that for females (+26%). This resulted in an absolute increase of more than 16,000 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 2006 and quarter 4 2011, the share of males amongst LLL participants grew from 44% 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 2011 relative to quarter 4 2006: male LLL participation went from 3% to 4.2% and that for females from 3.9% to 4.5% over the five-year period.

Figure 11.2 LLL Participation by Gender, Quarter 4 2011



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

11.4 Lifelong Learning by Age

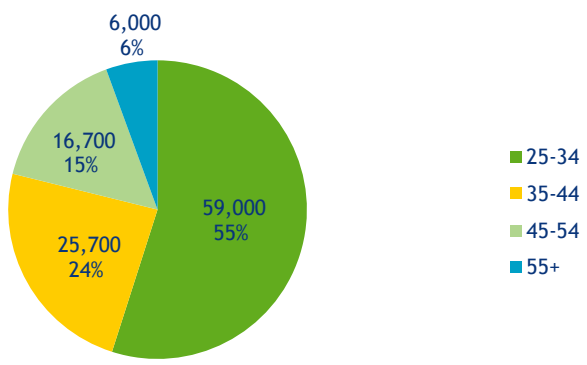
Most LLL participants were aged between 25-44 years (Figure 11.3). Of the 107,000 LLL participants in quarter 4 2011, 59,000 were aged 25-34, accounting for over one half of the total; 25,700 were aged 35-44, representing one quarter; almost 16,700 were aged 45-54 years (a 15% share), while those aged 55+ amounted to more than 6,000 persons (or 6% of the total).

When compared to quarter 4 2006, the number of LLL participants increased across all age groups. In absolute terms the growth was strongest amongst the younger age-cohorts (which have the largest number of individuals). Over the five-year-period, the number of LLLs in the 25-34 and the 34-45 year-old age categories each rose by approximately 9,000 individuals, representing growth of 18% and 50% respectively (up from 50,000 and 17,000 each in quarter 4 2006 to 59,000 and almost

25,700 in quarter 4 2011). There were also 7,000 additional learners (+75%) in the 45-54 year-old age category, reaching 16,700 in quarter 4 2011. Finally, the number of LLL participants aged 55+ almost doubled over the five-year period, albeit from a comparatively low base of just over 3,000.

The relative distribution of LLL participants by age shifted slightly towards older age cohorts between quarter 4 2006 and quarter 4 2011: the share of 25-34 year-olds declined from 63% to 55%, while the share of those aged 35-44 years old rose from 21% to 24% and the share of 45-54-year-olds rose from 12% to 15%. There was also a two-percentage point increase in the share of over 55s, which reached 6% in quarter 4 2011, although the numbers involved were comparatively small at 6,000.

Figure 11.3 LLL Participation by Age Group, Quarter 4 2011

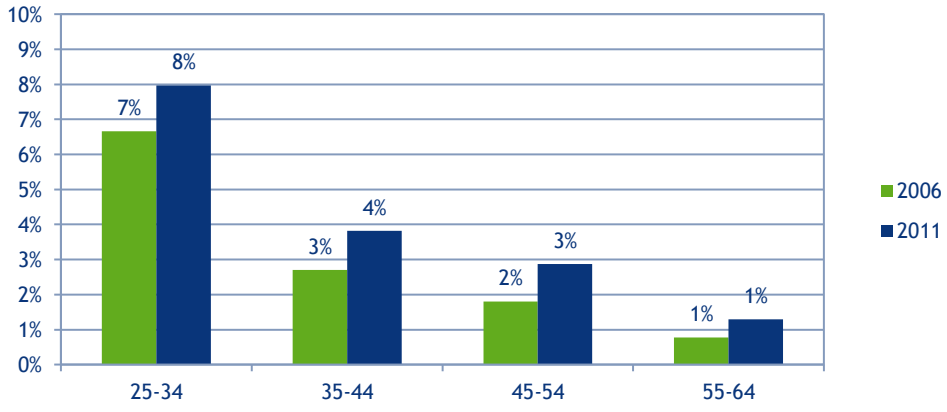


Source: SLMRU (FÁS) analysis of CSO (QNHS) data

As shown in Figure 11.4, the likelihood of participating in LLL decreases with age: at 8%, the share of 25-34-year olds (59,000 persons) in receipt of education and training was double that of 35-44-year olds (4% or 25,700 persons) and two and a half times that of 45-54 year-olds (3% or 16,700); just 1% (6,000 persons) of those aged 55 years or over had been in receipt of education and training in the preceding four weeks.

When compared to quarter 4 2006, the LLL participation rate grew, by approximately one percentage point, for all age categories, except for those aged 55-64, which grew by half a percentage point.

Figure 11.4 LLL Participation Rates by Age, Quarter 4 2006 and Quarter 4 2011



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

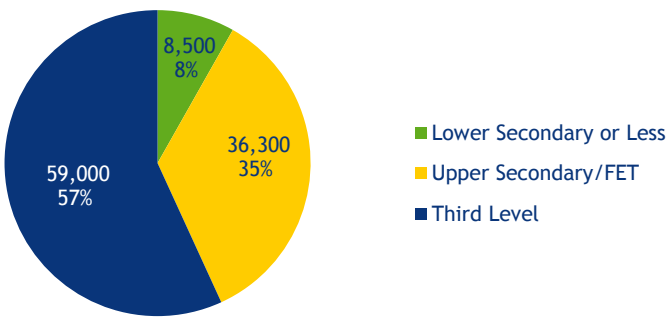
11.5. Lifelong Learning by Education Level

Of the almost 104,000 LLL participants who stated their highest level of educational attainment in quarter 4 2011, almost 59,000 were third level graduates, representing over one half of the total (57%); approximately 36,300 persons (35%) had completed higher secondary or further education and training (FET), with the remaining 8,500 persons (or 8%) having attained lower secondary education or less (Figure 11.5).

When compared to quarter 4 2006, there were increases in the numbers participating in LLL across each of the educational attainment categories. While growth of over 25% was recorded for LLL participants with lower secondary or less, in absolute terms the increase was less than 2,000 (going from 7,000 to approximately 8,500 over the five-year period). The number of LLL participants with higher secondary/FET qualifications grew by 10,800 (42%), while the number of third level graduates grew by a third (an additional 15,000 persons).

Over the period quarter 4 2006 to quarter 4 2011, the shares of LLL participants who had third level qualifications or lower secondary or less educational qualifications declined slightly (by one percentage points each to 57% and 8% respectively); in contrast the share of LLL participants who had higher secondary/FET qualifications increased by two percentage points to reach 35% (up from 33%).

Figure 11.5 LLL participation by highest level of education attained, Quarter 4 2011

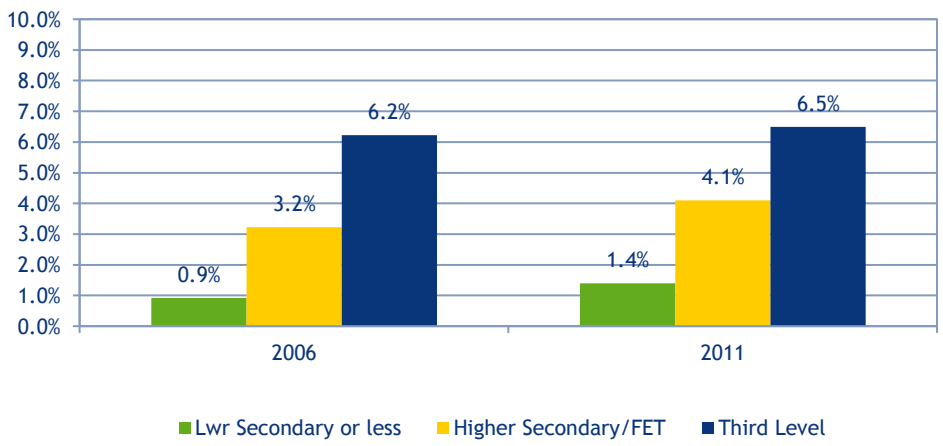


Source: SLMRU (FÁS) analysis of CSO (QNHS) data

In terms of LLL participation rates, the higher the educational attainment, the greater the likelihood of participating in LLL (Figure 11.6): at 6.5% (59,000 persons), third level graduates were more than four times more likely to participate in LLL than those with lower secondary or less educational qualifications (1.4%, almost 9,000 persons) in quarter 4 2011. The participation rate for those with higher secondary/FET qualifications was 4.1% (representing 36,300 persons).

When compared to quarter 4 2006, the LLL participation rate in quarter 4 2011 grew from 3.2% to 4.1% for those with higher secondary/FET qualifications. While there were also increases in the LLL participation rates for those with lower secondary or less and those with third level qualifications, the increases were less than half a percentage point each.

Figure 11.6 Adult population by LLL participation and highest educational attainment, Quarter 4 2006 and Quarter 4 2011

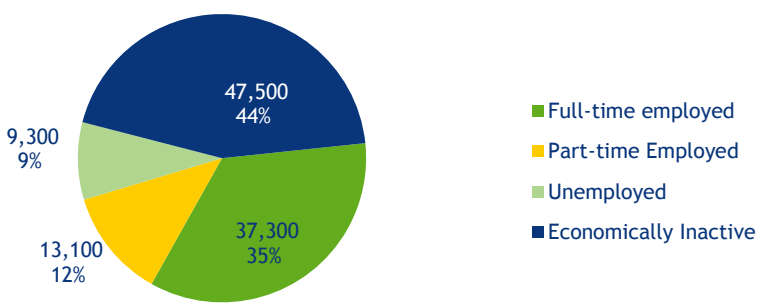


Source: SLMRU (FÁS) analysis of CSO (QNHS) data

11.6 Lifelong Learning by Economic Status

This section examines the economic status of LLL participants at the time of the survey. Of the 107,000 LLL participants in quarter 4 2011, the economically inactive category, with almost 48,000 persons, had the greatest number, accounting for 44% of all LLL participants[49]. More than 37,000 LLL participants were in full-time employment, making up more than a third of the total; over 13,000 were employed part-time (12%), while a further 9,300 (9%) were unemployed.

Figure 11.7 LLL Participation by Economic Status, Quarter 4 2011



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

When compared to quarter 4 2006, the number of LLL participants in each economic category increased, except for those in part-time employment, which remained largely unchanged; the largest absolute increase was in the economically inactive category, which rose by over 14,000 (+42%). Those in full-time employment grew by a fifth (6,000 individuals), while there was more than a four-fold increase in the number of LLL participants who were unemployed.

Over the period quarter 4 2006 to quarter 4 2011, the share of LLL participants who were in employment declined while the shares who were unemployed or economically inactive increased:

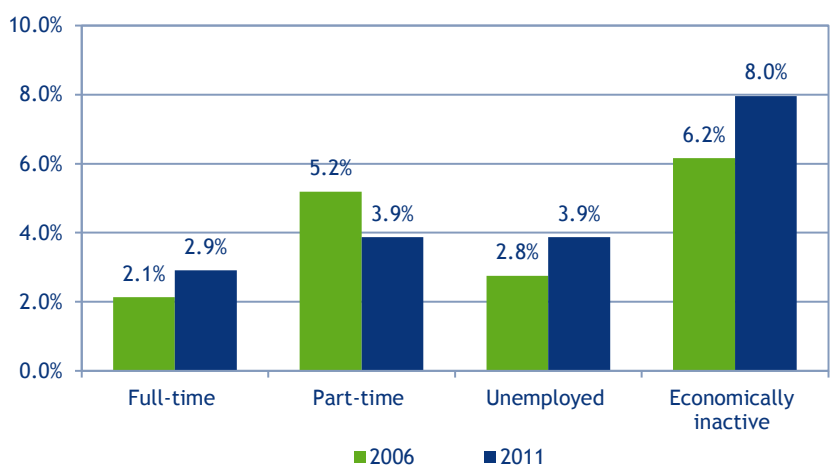
- the share of those in full-time employment fell from 39% to 37%
- those in part-time employment fell from 17% to 12%
- in contrast, the share of LLL participants who were unemployed or economically inactive increased from 2% to 9% and 42% to 44% respectively

The highest LLL participation rate was recorded for those who were economically inactive (8%) (Figure 11.8). At almost 3%, full-time employed persons were slightly less likely to engage in LLL than those in part-time employment (3.9%) or the unemployed (3.9%).

[49] 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).

With the exception of part-time employed persons, the share of those participating in LLL increased between quarter 4 2006 and quarter 4 2011. The largest relative increase was for those in the economically inactive category (+ 1.8 percentage points); participation rates for those in part-time employment declined from just over 5% to approximately 4%.

Figure 11.8 LLL Participation Rate (%) by Employment Status, Quarter 4 2006 and Quarter 4 2011



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

11.6.1 Economically Inactive:

In quarter 4 2011, of the 48,000 LLL participants who were economically inactive[50] (which includes, among others, full-time students)

- Females outnumbered males: approximately 26,000 were female (54%); almost 22,000 were male (46%)
- Approximately 27,000 were aged 25-34; 10,000 were aged 35-44 and almost a further 10,000 were aged 45 or more, accounting for a 57% share, 22% share and 21% share, respectively
- Of those who stated their education level (46,000), approximately 19,000 were third level graduates; more than 21,000 had higher secondary/FET qualifications and just under 6,000 had lower secondary or less, making up 41%, 45% and 14% of all LLL participants who stated their highest level of education attained

In terms of LLL participation rates amongst the economically inactive in quarter 4 2011

- When compared to females, males were twice as likely to participate in LLL (12% of all economically inactive males compared to 6% for females)
- Younger age cohorts were most likely to participate in LLL: the participation rate for 25-34 year-olds was 22% compared to 8% for 35-44 year-olds, and 3% for those aged 45 or more

[50] Of the economically inactive, approximately 80% had classified themselves as students in quarter 4 2011.

- Third level graduates were eight times more likely than those with lower secondary qualifications to have participated in LLL (16%, compared to 2%)

When compared to quarter 4 2006

- The number of male participants increased by more than a half, going from over 14,000 to almost 22,000 over the five-year period
- There were more female than male LLL participants in both time periods; however, males made small gains in the overall share over the five year period, going from 43% in quarter 4 2006 to 48% in quarter 4 2011
- While the share of younger LLL participants declined (by three percentage points, reaching 57% in quarter 4 2011) over the five year period, the share of older LLL participants grew, also by three percentage points, going from an 18% to 21% share; the share of LLL participants aged 35-44 remained unchanged at 22%
- 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 18% to 22%; those aged 35-44 from 6% to 8% and those aged 45 and over from 2% to 3%.
- The share of LLL participants with higher secondary/FET qualifications increased from 43% to 47%, but there was a decline for those with third level qualifications (down from 44% to 40%); the share with lower secondary or less qualifications remained unchanged at 12%

11.6.2 Employed:

In quarter 4 2011, of the 50,000 LLL participants who were in employment

- Almost three quarters (approximately 37,000 persons) were in full-time employment; the remainder (over 13,000 persons), in part-time employment
- Females outnumbered males: almost 27,000 were female (53%); almost 24,000 were male (47%)
- The majority (73%) were third level graduates, accounting for almost 36,000 persons
- In excess of 27,000 (more than one half) were aged 25-34; almost 13,000 (approximately one quarter) were aged 35-44; more than 10,000 (20%) were 45 years or over
- Almost 16,000 were in professional occupations; 8,000 were in associate professional occupations; service and administrative/secretarial occupations accounted for almost 6,000 persons each; the remainder were distributed in other occupational groups.

In terms of LLL participation rates amongst the employed in quarter 4 2011,

- Those employed part-time were slightly more likely than those in full-time employment to participate in LLL (4% vs 3%);
- Part-time employed males and females were equally likely to participate in LLL (4%)
- Full-time employed females were slightly more likely than their male counterparts to participate in LLL (3.4% compared to 2.6%)

- At 5% compared to 3%, employed persons aged 25-34 were more likely than those aged 35-44 to participate in LLL
- With a participation rate of almost 5%, third level graduates were most likely to participate in LLL, followed by those with upper secondary/FET qualifications at 2%

When compared to quarter 4 2006,

- The overall number of LLL participants who were in employment grew by 13% (almost 6,000 additional learners) over the five year period; however, the growth was mainly concentrated amongst those who were in full-time employment where the number of LLL participants grew by 21% (going from approximately 31,000 to 37,000) over the five year period; the number of those employed part-time remained almost unchanged, declining by just 600 individuals to 13,100 by quarter 4 2011
- While the number of employed LLL participants in the older age cohorts rose by almost a half (those aged 35 and over rose by 7,400), there was a 5% drop in the number of employed 25-34 year old LLL participants, resulting in 1,600 fewer learners
- The age distribution shifted away from younger LLL participants: by quarter 4 2011, the share of 25-34 year-olds declined by eleven percentage points (down from 65% to 54%); in contrast, the shares in the older age cohorts increased, going from 21% of the total to 25% for those aged 35-44 and from 14% to 20% for those aged 45+
- The education distribution remained largely similar although the share of those with third level qualifications rose by five percentage points to 73%, while there were declines of three and two percentage points respectively for those with higher secondary or FET qualifications and those with lower secondary or less.
- The participation rate of third level graduates in part-time employment declined from 10% to 6% but remained stable at 4% for their counterparts in full-time employment

11.6.3 Unemployed

In quarter 4 2011, of the 9,300 LLL participants who were unemployed,

- males outnumbered females: there were almost 6,000 males (62%) and fewer than 4,000 females (38%); this is the widest gender gap in any of the employment categories considered in this section
- almost one half of unemployed LLL participants were aged 25-34 years, amounting to almost 4,400 individuals
- among those who stated their level of education attainment, more than one half (approximately 5,000 individuals) held third level qualifications

In terms of LLL participation rates amongst the unemployed in quarter 4 2011,

- females were slightly more likely than males to participate in LLL (5% for females compared to 4% for males)

- at 8%, unemployed third level graduates were more than twice as likely to participate in LLL than their counterparts with higher secondary/FET qualifications (3%)
- younger individuals were slightly more likely to participate in LLL than those aged 35 or over: 5% of those aged 25-34 had participated in LLL in quarter 4 2011, compared to 4% for those aged 35-44 years and 3% for those aged 45+.

The number of unemployed LLL participants in quarter 4 2006 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, e.g. 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 + Guest House (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

Field of Education & Training	Occupations
Education	Careers advisers & vocational guidance specialists
	Education advisers & school inspectors
	Educational support assistants
	Further education teaching professionals
	Higher education teaching professionals
	Primary & nursery education teaching professionals
	Secondary education teaching professionals
	Senior professionals of educational establishments
	Special needs education teaching professionals
	Teaching & Educational Professionals
	Teaching & other educational professionals n.e.c.
	Teaching assistants
	Vocational & industrial trainers and instructors
Humanities & Arts	Actors, entertainers & presenters
	Artistic, Literary & Media Occupations
	Artists
	Arts officers, producers & directors
	Authors, writers & translators
	Clergy
	Dancers & choreographers
	Design Occupations
	Florists
	Graphic designers
	Musicians
	Photographers, audio-visual & broadcasting equipment operators
	Pre-press technicians
	Print finishing & binding workers
	Printers
	Printing Trades
	Product, clothing & related designers

Field of Education & Training	Occupations
Social science, business & law	Actuaries, economists & statisticians
	Administrative Occupations: Finance
	Administrative Occupations: Government & Related Organisations
	Administrative Occupations: Office Managers & Supervisors
	Administrative Occupations: Records
	Advertising accounts managers & creative directors
	Advertising & public relations directors
	Archivists & curators
	Bank & post office clerks
	Barristers & judges
	Book-keepers, payroll managers & wages clerks
	Brokers
	Business & financial project management professionals
	Business & related associate professionals n.e.c.
	Business & related research professionals
	Business sales executives
	Business, Finance & Related Associate Professionals
	Business, Research & Administrative Professionals
	Business, research & administrative professionals n.e.c.
	Buyers & procurement officers
	Call & contact centre occupations
	Chartered & certified accountants
	Chief Executives & Senior Officials
	Collector salespersons & credit agents
	Communication operators
	Company secretaries
	Conference & exhibition managers & organisers
	Credit controllers
	Customer Service Managers & Supervisors
	Customer Service Occupations
	Customer service occupations n.e.c.

Field of Education & Training	Occupations
	Debt, rent & other cash collectors
	Elected officers & representatives
	Elementary Administration Occupations
	Elementary Sales Occupations
	Estate agents & auctioneers
	Estimators, valuers & assessors
	Finance & investment analysts & advisers
	Finance officers
	Financial accounts managers
	Financial administrative occupations n.e.c.
	Financial & accounting technicians
	Financial Institution Managers & Directors
	Financial managers & directors
	Functional Managers & Directors
	Functional managers & directors n.e.c.
	Garage managers & proprietors
	Human resource managers & directors
	Human resources administrative occupations
	Human resources & industrial relations officers
	Importers & exporters
	Insurance underwriters
	Journalists, newspaper & periodical editors
	Legal Associate Professionals
	Legal Professionals
	Legal professionals n.e.c.
	Legal secretaries
	Librarians
	Librarians & Related Professionals
	Library clerks & assistants
	Local government administrative occupations
	Management consultants & business analysts
	Managers & Directors in Retail & Wholesale
	Managers & directors in storage & warehousing
	Managers & directors in transport & distribution
	Managers & Directors in Transport & Logistics
	Market & street traders & assistants

Field of Education & Training	Occupations
	Market research interviewers
	Marketing & sales directors
	Marketing associate professionals
	Media Professionals
	Medical secretaries
	Merchandisers & window dressers
	National government administrative occupations
	Office managers
	Office supervisors
	Officers of non-governmental organisations
	Other Administrative Occupations
	Other administrative occupations n.e.c.
	Pensions & insurance clerks & assistants
	Personal assistants & other secretaries
	Pharmacy and other dispensing assistants
	Probation officers
	Public relations professionals
	Public Services and Other Associate Professionals
	Public services associate professionals
	Purchasing managers and directors
	Quality and Regulatory Professionals
	Quality assurance and regulatory professionals
	Receptionists
	Records clerks and assistants
	Retail cashiers and check-out operators
	Roundspersons and van salespersons
	Sales accounts and business development managers
	Sales administrators
	Sales and retail assistants
	Sales Assistants and Retail Cashiers
	Sales Related Occupations
	Sales related occupations n.e.c.
	Sales Supervisors
	Sales, Marketing and Related Associate Professionals
	School secretaries
	Secretarial and Related Occupations
	Shopkeepers and proprietors – wholesale and retail

Field of Education & Training	Occupations
	Social and humanities scientists
	Social workers
	Solicitors
	Stock control clerks and assistants
	Taxation experts
	Telephone salespersons
	Telephonists
	Transport and distribution clerks and assistants
	Typists and related keyboard occupations
	Vehicle and parts salespersons and advisers
	Welfare Professionals
Science, maths and computing	Biological scientists and biochemists
	Chemical scientists
	Conservation and Environment Professionals
	Conservation and Environmental Associate Professionals
	Conservation professionals
	Environment professionals
	Information technology and telecommunications directors
	Information Technology and Telecommunications Professionals
	Information technology and telecommunications professionals n.e.c.
	Information Technology Technicians
	IT business analysts, architects and systems designers
	IT operations technicians
	IT project and programme managers
	IT specialist managers
	IT user support technicians
	Laboratory technicians
	Natural and Social Science Professionals
	Natural & social science professionals n.e.c.
	Physical scientists
	Programmers & software development professionals
	Research & development managers
	Research & Development Managers
	Shelf fillers
	Web design & development professionals
Engineering,	Air-conditioning & refrigeration

Field of Education & Training	Occupations
Manufacturing & Construction	engineers
	Aircraft maintenance & related trades
	Architects
	Architects, Town Planners & Surveyors
	Architectural & town planning technicians
	Assemblers (electrical & electronic products)
	Assemblers (vehicles & metal goods)
	Assemblers & Routine Operatives
	Assemblers & routine operatives n.e.c.
	Bakers & flour confectioners
	Boat & ship builders & repairers
	Bricklayers & masons
	Building & civil engineering technicians
	Building Finishing Trades
	Butchers
	Carpenters & joiners
	Chartered architectural technologists
	Chartered surveyors
	Chemical & related process operatives
	Civil engineers
	Coal mine operatives
	Construction & Building Trades
	Construction & building trades n.e.c.
	Construction & Building Trades Supervisors
	Construction Operatives
	Construction operatives n.e.c.
	Construction project managers & related professionals
	Crane drivers
	Design & development engineers
	Draughtspersons
	Draughtspersons & Related Architectural Technicians
	Electrical & Electronic Trades
	Electrical & electronic trades n.e.c.
	Electrical & electronics technicians
	Electrical engineers
	Electricians & electrical fitters
	Electronics engineers
	Electroplaters

Field of Education & Training	Occupations
	Elementary Construction Occupations
	Elementary Process Plant Occupations
	Elementary process plant occupations n.e.c.
	Elementary sales occupations n.e.c.
	Energy plant operatives
	Engineering Professionals
	Engineering professionals n.e.c.
	Engineering technicians
	Fishmongers & poultry dressers
	Floorers & wall tilers
	Food, drink & tobacco process operatives
	Footwear & leather working trades
	Furniture makers & other craft woodworkers
	Glass & ceramics makers, decorators & finishers
	Glass & ceramics process operatives
	Glaziers, window fabricators & fitters
	Industrial cleaning process occupations
	IT engineers
	Mechanical engineers
	Metal Forming, Welding & Related Trades
	Metal machining setters & setter-operators
	Metal Machining, Fitting & Instrument Making Trades
	Metal making & treating process operatives
	Metal plate workers, & riveters
	Metal working machine operatives
	Metal working production & maintenance fitters
	Mobile Machine Drivers & Operatives
	Moulders, core makers & die casters
	Other Skilled Trades
	Other skilled trades n.e.c.
	Packers, bottlers, canners & fillers
	Painters & decorators
	Paper & wood machine operatives
	Pipe fitters
	Planning, process & production technicians
	Plant & Machine Operatives
	Plant & machine operatives n.e.c.

Field of Education & Training	Occupations
	Plasterers
	Plastics process operatives
	Plumbers & heating & ventilating engineers
	Precision instrument makers & repairers
	Printing machine assistants
	Process Operatives
	Process operatives n.e.c.
	Production & process engineers
	Production Managers & Directors
	Production managers & directors in construction
	Production managers & directors in manufacturing
	Production managers & directors in mining & energy
	Quality assurance technicians
	Quality control & planning engineers
	Quantity surveyors
	Quarry workers & related operatives
	Rail & rolling stock builders & repairers
	Rail construction & maintenance operatives
	Road construction operatives
	Roofers, roof tilers & slaters
	Routine inspectors & testers
	Rubber process operatives
	Scaffolders, stagers & riggers
	Science, Engineering & Production Technicians
	Science, engineering & production technicians n.e.c.
	Sewing machinists
	Sheet metal workers
	Skilled Metal, Electrical & Electronic Trades Supervisors
	Smiths & forge workers
	Steel erectors
	Tailors & dressmakers
	Telecommunications engineers
	Textile process operatives
	Textiles & Garments Trades
	Textiles, garments & related trades n.e.c.
	Tool makers, tool fitters & markers-out
	Town planning officers

Field of Education & Training	Occupations
	TV, video & audio engineers
	Tyre, exhaust & windscreen fitters
	Upholsterers
	Vehicle body builders & repairers
	Vehicle paint technicians
	Vehicle technicians, mechanics & electricians
	Vehicle Trades
	Water & sewerage plant operatives
	Weavers & knitters
	Weighers, graders & sorters
	Welding trades
Agriculture & Vetinary	Agricultural & fishing trades n.e.c.
	Agricultural & Related Trades
	Animal Care & Control Services
	Animal care services occupations n.e.c.
	Elementary Agricultural Occupations
	Farm workers
	Farmers
	Fishing & other elementary agriculture occupations n.e.c.
	Forestry workers
	Gardeners & landscape gardeners
	Groundsmen & greenkeepers
	Horticultural trades
	Managers and proprietors in agriculture and horticulture
	Managers and Proprietors in Agriculture Related Services
	Managers and proprietors in forestry, fishing and related services
	Pest control officers
	Veterinarians
	Veterinary nurses
Health and Welfare	Ambulance staff (excluding paramedics)
	Care escorts
	Care workers and home carers
	Caring Personal Services
	Child & early years officers
	Childcare & Related Personal Services
	Childminders & related occupations
	Counsellors
	Dental nurses

Field of Education & Training	Occupations
	Dental practitioners
	Dispensing opticians
	Health & Social Services Managers & Directors
	Health Associate Professionals
	Health associate professionals n.e.c.
	Health care practice managers
	Health Professionals
	Health professionals n.e.c.
	Health services & public health managers & directors
	Hospital porters
	Houseparents & residential wardens
	Housing officers
	Managers & Proprietors in Health & Care Services
	Medical & dental technicians
	Medical practitioners
	Medical radiographers
	Midwives
	Nursery nurses & assistants
	Nurses
	Nursing & Midwifery Professionals
	Nursing auxiliaries & assistants
	Occupational therapists
	Ophthalmic opticians
	Paramedics
	Pharmaceutical technicians
	Pharmacists
	Physiotherapists
	Playworkers
	Podiatrists
	Psychologists
	Residential, day & domiciliary care managers & proprietors
	Senior care workers
	Social services managers & directors
	Speech & language therapists
	Therapy Professionals
	Therapy professionals n.e.c.
	Welfare & Housing Associate Professionals
	Welfare & housing associate professionals n.e.c.

Field of Education & Training	Occupations
	Welfare professionals n.e.c.
	Youth & community workers
Services	Agricultural machinery drivers
	Air traffic controllers
	Air transport operatives
	Air travel assistants
	Aircraft pilots & flight engineers
	Bar staff
	Beauticians & related occupations
	Bus & coach drivers
	Caretakers
	Catering & bar managers
	Chefs
	Cleaners & domestics
	Cleaning & Housekeeping Managers & Supervisors
	Cooks
	Driving instructors
	Elementary administration occupations n.e.c.
	Elementary Cleaning Occupations
	Elementary cleaning occupations n.e.c.
	Elementary Security Occupations
	Elementary security occupations n.e.c.
	Elementary Storage Occupations
	Environmental health professionals
	Fire service officers (watch manager & below)
	Fitness instructors
	Food Preparation & Hospitality Trades
	Fork-lift truck drivers
	Hairdressers & barbers
	Hairdressers & Related Services
	Hairdressing & beauty salon managers & proprietors
	Health & safety officers
	Hotel & accommodation managers & proprietors
	Housekeepers & related occupations
	Housekeeping & Related Services
	Inspectors of standards & regulations
	Kitchen and catering assistants
	Large goods vehicle drivers

Field of Education & Training	Occupations
	Launderers, dry cleaners & pressers
	Leisure & sports managers
	Leisure & theme park attendants
	Leisure & travel service occupations n.e.c.
	Leisure & Travel Services
	Managers & Proprietors in Hospitality & Leisure Services
	Managers & Proprietors in Other Services
	Managers & proprietors in other services n.e.c.
	Marine and waterways transport operatives
	Mobile machine drivers&operatives n.e.c.
	NCOs&other ranks
	Officers in armed forces
	Other Drivers&Transport Operatives
	Other drivers and transport operatives n.e.c.
	Other Elementary Services Occupations
	Other elementary services occupations n.e.c.
	Parking and civil enforcement occupations
	Police community support officers
	Police officers (sergeant & below)
	Postal workers, mail sorters, messengers & couriers
	Prison service officers (below principal officer)
	Property, housing & estate managers
	Protective service associate professionals n.e.c.
	Protective Service Occupations
	Publicans & managers of licensed premises
	Rail transport operatives
	Rail travel assistants
	Refuse & salvage occupations
	Restaurant & catering establishment managers and proprietors
	Road Transport Drivers
	School midday and crossing patrol occupations
	Security guards & related occupations
	Senior officers in fire, ambulance, prison & related services
	Senior Officers in Protective Services
	Senior police officers

Field of Education & Training	Occupations
	Ship & hovercraft officers
	Sports & Fitness Occupations
	Sports & leisure assistants
	Sports coaches, instructors & officials
	Sports players
	Street cleaners
	Taxi & cab drivers & chauffeurs
	Train & tram drivers
	Transport Associate Professionals
	Travel agency managers & proprietors

Field of Education & Training	Occupations
	Travel agents
	Undertakers, mortuary & crematorium assistants
	Van drivers
	Vehicle valeters & cleaners
	Waiters & waitresses
	Waste disposal & environmental services managers
	Window cleaners

Appendix C Higher, Professional and Selected FET Providers

Appendix C1. Training providers whose main activities are focused on the provision of education and training

Communications and Management Institute
IICP Education and Training Ltd.
Irish Management Institute
Irish Payroll Association (IPASS)
National Counseling and Psychotherapy Institute of Ireland
Development Studies Centre, Kimmage
Dublin Business School
College of Computer Training
DBL College
Grafton College of Management Sciences
Griffith College
Hibernia College
HIS Limerick Business School
ICD Business School
Independent Colleges
Institute of Business and Technology, Swords
Institute of Physical Therapy and Applied Science
Newpark Music Centre
Setanta College
SQT Training Ltd
St. Nicholas Montessori College, Ireland
The American College, Dublin
The Open Training College

Appendix C2. Training providers for whom education & training is only part of their service provision

Clanwilliam Institute
Irish Business and Employers' Confederation(IBEC)
Irish Institute of Purchasing & Materials Management
Leinster Academy, Leinster Rugby IRFU
Munster Academy, Munster Rugby IRFU
National Centre for Guidance in Education
Public Affairs Ireland
SIPTU College
HSE Regional Centre, Nursing and Midwifery Education, Blanchardstown
HSE Regional Centre, Nursing and Midwifery Education, Tullamore
Children's Therapy Centre

Appendix C3. Professional Bodies

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
The Law Society
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References

CAO Directors' Report (CAO: Various Years)

Digital Reading Literacy in the OECD Programme for International Student Assessment (PISA 2009): Summary of Results for Ireland. (Educational Research Centre: 2011)

Education at a Glance 2011 (OECD: 2011)

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A Study of Progression in Irish Higher Education (HEA: 2010)

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ICT Action Plan: Meeting the High Level ICT Skills Needs of Enterprise in Ireland (DES: 2012)

Population and Migration Estimates April 2011 (September 2011)

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

QNHS Educational Attainment Thematic Report 2011 (CSO: 2012)

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

School Leavers' Survey Report 2007 (ESRI 2009)

Springboard 2011 First-Stage Evaluation (HEA: 2012)

State Examinations Commission Annual Report (SEC: Various Years)

Members of the Expert Group on Future Skills Needs

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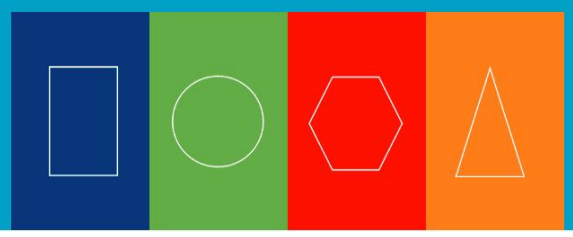
Recent Expert Group on Future Skills Needs Publications

Report	Publication Date
Key Skills for Enterprise to Trade Internationally	June 2012
EGFSN Statement of Activity 2011	April 2012
Vacancy Overview 2011	February 2012
Guidance for Higher Education Providers on Current and Future Skills Needs of Enterprise *(Forfás report based on EGFSN identified future skills needs)*	February 2012
Addressing High-Level ICT Skills Recruitment Needs: Research Findings	January 2012
Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs	July 2011
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
Future Skills Requirements of the Food and Beverage Sector	November 2009
Skills in Creativity, Design and Innovation	November 2009
Monitoring Ireland's Skill Supply. Trends in Education and Training Outputs 2009	November 2009
National Skills Bulletin 2009	July 2009
A Quantitative Tool for Workforce Planning in Healthcare: Example Simulations	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



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