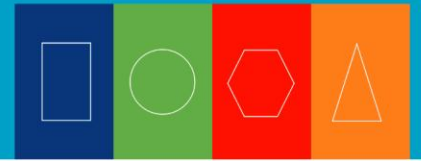


# Monitoring Ireland's Skills Supply

## Trends in Education and Training Outputs

July 2013



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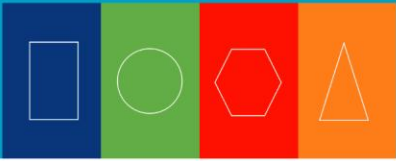
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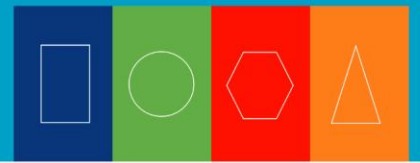
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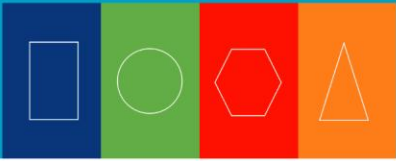
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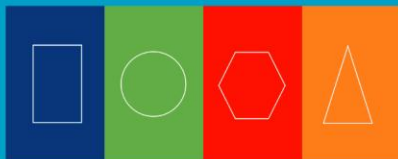




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## Foreword

On behalf of the Expert Group on Future Skills Needs, I am very pleased to introduce this year's edition of *Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs*. This report is the eighth in a series of annual publications produced by the Skills and Labour Market Research Unit in FÁS.



Creating a skilled workforce and fostering economic growth depend largely on an education and training system that is focused on the needs of individuals, communities, employers and the economy. It is important therefore that we can draw on relevant data surrounding inflows and outflows from the education and training system in order to facilitate evidence based decision making and to ensure that Ireland's skills supply matches the needs of the labour market.

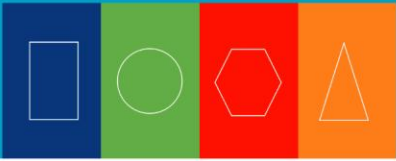
This report, '*Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs*', gathers all available data on those entering and leaving the Irish education system (primary, post-primary, further education and training, and higher education) spanning the ten levels of the National Framework of Qualifications (NFQ). Such data reveals important information with regard to student choices and the nature (in terms of size, NFQ level and field of learning) of the possible future skills supply to emerge from the education and training system.

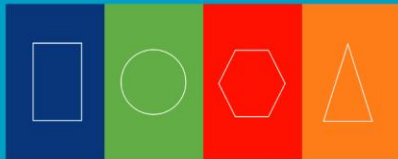
The Report highlights the increasing number of people who are gaining awards across most levels of the NFQ: in 2012, there were approximately 217,000 awards made, a 3% increase on 2011. Demographic data shows that the size of school-going age cohorts (both children and young adults) is expected to continue to grow and, together with increased participation and retention rates within the education and training system, Ireland will continue to ensure a supply of graduates, skills and labour for the workforce into the future.

Together with its companion publication, the *National Skills Bulletin 2013*, this comprehensive study contributes to the EGFSN's role in advising Government on the current and future skills needs of the economy and guides stakeholders in aligning skills supply with labour market demand and with the needs of society.

I would like to take this opportunity to thank all the education providers and stakeholders for their continued co-operation in providing the data 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 eighth in a series of annual reports produced by the Skills and Labour Market Research Unit of FÁS on behalf of the Expert Group on Future Skills Needs. This series of reports aims to provide an overview of the potential supply of skills to the Irish labour market from Ireland's education and training system; to this end, this publication reports on the inflows and outflows from the education system across levels 1-10 of the National Framework of Qualifications (NFQ).

### Key Points

- There were approximately 217,000 awards in 2012; of these there were
  - 59,000 Junior Certificates
  - 56,000 Leaving Certificates
  - 43,000 QQI-FETAC major awards for further education and training (FET)
  - 59,000 higher education awards (refers to 2011 data)
- Approximately 90% of those entering the second level education system are expected to complete the Leaving Certificate (DES 2012); however, females (at 91.8%) have a higher retention rate than males (88.7%)
- There were approximately 43,000 (QQI-FETAC) major awards holders in 2012, an increase of 13% on the previous year; however, in terms of overall QQI-FETAC award (all types) holders, there was a decline of approximately 10,000, with most of the decline occurring for minor awards
- CAO acceptances totalled 46,300 in 2012 for all NFQ levels (6-8), a modest increase of 1% on 2011
- Undergraduate output (NFQ levels 6-8): there were over 41,000 awards in 2011, an increase of 3% on 2010, primarily due to increased output at level 6
- Postgraduate enrolment: enrolments totalled 33,600 in 2011, which is a small decline on the previous year; this relates to a decline in postgraduate certs/diploma enrolments as there were modest increases in masters and PhD programmes
- Postgraduate output: there were 17,650 awards made across NFQ levels 9 and 10 in 2011, which is a 3% decrease on 2010 but nonetheless 20% greater than in 2007
- Destination of graduates: there were declines in both the population and employment levels of persons aged 25-29 between quarter 4 2009 and quarter 4 2012; however, despite these declines, the number of graduates with level 8-10 qualifications in the population and in employment remained relatively stable over the period examined
- Adult population: approximately 127,000 adults aged 25 or over received formal education in quarter 4 2012, representing over 4% of the adult population; of these, almost three quarters were participating in third level education programmes.



## Summary of Outputs from the Irish Education and Training System

Table 1 Summary of Education and Training Awards by NFQ Level, 2012<sup>1</sup>

	NFQ 1-2	NFQ 3	NFQ 4	NFQ 5	NFQ 6	NFQ 7	NFQ 8	NFQ 9/10	Total
SEC (Junior Cert)	-	59,000	-	-	-	-	-	-	59,000
SEC (Leaving Cert)	-	-	56,000	-	-	-	-	-	56,000
QQI-FETAC (Major awards)	980	1,080	2,250	26,670	11,620	-	-	-	42,600
Institutes of Technology	-	-	-	-	2,940	7,700	9,660	2,320	22,620
Universities	-	-	-	-	1,650	1,750	17,710	15,330	36,440
<b>Total</b>	<b>980</b>	<b>60,080</b>	<b>84,920</b>	<b>26,670</b>	<b>16,210</b>	<b>9,450</b>	<b>27,370</b>	<b>17,650</b>	<b>216,660</b>

Source: State Examinations Commission (SEC); Quality & Qualifications Ireland (QQI); Higher Education Authority (HEA)

Table 2 Summary of Further and Higher Education and Training Awards by Field of Education, 2012<sup>1</sup>

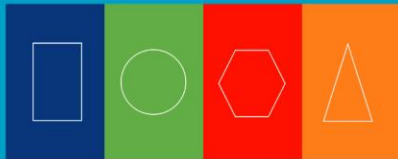
Field	NFQ 1-2	NFQ 3	NFQ 4	NFQ 5	NFQ 6	NFQ 7	NFQ 8	NFQ 9/10	Total
General	980	830	1,680	110	150	-	-	40	3,790
Education	-	-	-	10	30	30	1,810	3,010	4,890
Humanities & Arts	-	-	10	2,970	760	930	5,350	2,250	12,270
Social Science, Bus & Law	-	250	280	5,470	2,220	2,480	7,900	5,940	24,540
Science & Computing	-	-	-	900	690	1,000	3,580	2,160	8,330
Engineer & Construction	-	-	40	580	4,040	2,320	3,100	1,120	11,200
Agri & Veterinary	-	-	110	1,560	1,470	300	300	50	3,790
Health & Welfare	-	-	20	12,570	5,270	1,370	4,600	2,740	26,570
Services	-	-	120	2,500	1,600	1,030	730	330	6,310
<b>Total</b>	<b>980</b>	<b>1,080</b>	<b>2,250</b>	<b>26,670</b>	<b>16,210</b>	<b>9,450</b>	<b>27,370</b>	<b>17,650</b>	<b>101,660</b>

Source: QQI (QQI-FETAC Major Awards); HEA

Levels 1 and 2: The number of FETAC level 1 and 2 awards grew by more than a fifth when compared to 2011, reaching almost 1,000 in 2012; all awards were made in the field of general learning.

Levels 3: More than 60,000 awards were made at level 3, of which almost 59,000 were Junior Certificates; the number of Junior Certificate sits rose by 3% between 2011 and 2012; in contrast, at

<sup>1</sup> Graduation data for universities and institutes of technology is for 2011 - 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).



just over 1,000 in 2012, the number of FETAC awards declined by almost two thirds when compared to 2011.

Levels 4 and 5: Almost 85,000 awards were made in 2012, two thirds (56,000) of which were Leaving Certificates; most of the remaining 29,000 awards, made by QQI-FETAC, were at level 5; of the level 5 QQI-FETAC awards, the largest share (47%, or 12,600 awards) were in the health and welfare field (e.g. childcare, healthcare support), followed by social sciences, business & law (e.g. business studies) at over a fifth (or approximately 5,500 awards); when compared to 2011, there was a 3% decline in the number of Leaving Certificate sits, but a 17% rise in the number of QQI-FETAC awards; for QQI-FETAC awards, there was growth across all disciplines, except education; at least half of the increase in the number of QQI-FETAC awards at these levels was due to a 25% growth in the number of health and welfare awards (which went from approximately 10,000 to 12,600).

Level 6: There were more than 16,000 awards made, which is a 24% increase on the preceding year; QQI-FETAC major awards accounted for over 70% of the total and were primarily responsible for the gains made; of the level 6 awards made in higher education, two thirds were in the institute of technology (IoT) sector; almost a third of awards at this level were in health and welfare, with a further quarter in engineering, manufacturing and construction.

Level 7: Of the 9,450 awards made, over 80% were made in the IoTs with the remainder in universities; there was a 3% increase on the preceding year; social sciences, business and law and engineering/construction each accounted for approximately a quarter of all awards.

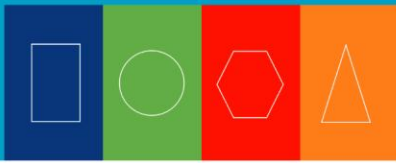
Level 8: An increase of 2% on the previous year resulted in awards at this level reaching almost 27,400, with universities accounting for almost two thirds of awards; at 29%, social sciences, business and law accounted for the largest share of awards, followed by humanities and arts at 20%.

Levels 9 and 10: There were 17,650 awards made across levels 9 and 10 in 2011, which is a 3% decrease on 2010; of the total output, 32% were postgraduate certs/diplomas, 60% were masters and 8% for PhD programmes; output from postgraduate certs/diplomas programmes declined but increased for both masters and PhD programmes; the social sciences, business and law discipline accounted for over a third of all awards at these levels (primarily for masters programmes).

## Future Outlook

### Primary and Post-Primary Level

- Population projections by the Central Statistics Office (2013) and enrolment projections by the Department of Education and Skills (DES) (2012) anticipate considerable expansion in the size of school age cohorts in the coming years, resulting in an expected rise in both inflows and outflows from the education and training system at primary and second level into the future; the number of primary school pupils is expected to grow from 516,000 in 2011 to almost 602,000 by 2020



- While the number of births has fallen slightly since the peak in 2009, at 74,650 in 2011, they continued to be well above those observed in the early and mid-2000s; this suggests that recent increases observed in junior infant enrolments, which reached 69,000 in September 2011, are unlikely to be reversed in the medium term
- Recent growth in the number of junior cycle enrolments is likely to continue in the medium term, given the anticipated increase in the size of the primary school cohort; this is expected to impact on the number of Junior Certificate sittings and, later, Leaving Certificate sittings; DES (2012) enrolment projections show that the number of second level pupils is expected to grow annually in the coming years, reaching 413,000 by 2026 (up from 323,000 in 2011).

### Further Education and Training (FET)

- It is estimated that over a quarter of second level pupils progress to further education and training (FET) (DES April 2013)
- In 2012, the number of learners aged 22 or less enrolled in the first year of selected FET courses (Post Leaving Certificate (PLC) and FÁS courses) was 23,000; with the size of the school age cohorts expected to expand in the coming years, there will be a knock on effect in the size of the number of learners leaving second level schools in later years, thereby creating an increased demand for places in FET courses among school leavers well into the future.

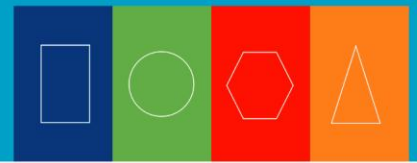
### Higher Education

- Approximately one half of second level pupils progress to higher education (DES April 2013)
- In 2012, the number of learners aged 22 or less enrolled in first year higher education (full-time) courses was almost 35,000; with the size of the school age cohorts expected to expand in the coming years, the demand for places in higher education among school leavers is also likely to grow; by 2026, full-time enrolments at higher level are expected to have grown to almost 209,000, up from 166,000 in 2011 (DES (2012)).

### Focus of Science, Engineering and Maths Skills

- Entry to science and related programmes in higher education (e.g. computer science at TCD, biomedical engineering at Cork IoT, food science and health at UL) often requires a minimum achievement in Leaving Certificate mathematics
  - the vast majority of Leaving Certificate students sit the examination in mathematics in any given year, partly due to the fact that it is a compulsory subject for most second level pupils
  - in 2012, more than 50,000 students sat Leaving Certificate mathematics<sup>2</sup>; of these, 11,000 (22%) sat higher level mathematics; 34,000 (68%) sat ordinary level and 5,000 (10%) sat foundation level; the share sitting the higher level paper was by far the smallest of all

<sup>2</sup> Pertains to students sitting the Leaving Certificate Established and Leaving Certificate Vocational programmes only; it excludes students sitting the Leaving Certificate Applied.



Leaving Certificate subjects; nonetheless, this marks an improvement on recent years where the higher level participation rate for mathematics was typically 16%-17%

- Approximately 30,500 candidates sat the 2012 Leaving Certificate examination in biology (74% at higher level); 8,000 candidates in chemistry (83% at higher level) and 6,400 in physics (75% at higher level).

## Higher Education

### Undergraduate (NFQ 6-8)

Figures 1 and 2 show the inflows (CAO acceptances) and outflows (graduate output) for science and technology related programmes in the Irish higher education system at undergraduate level.

- **Engineering:** while graduate output increased by 27%, CAO acceptances at level 7/6 declined; output at level 8 has been increasing since 2009 and is likely to continue to do so in the medium term, due to increases in CAO acceptances and enrolments
- **Construction:** while CAO acceptance numbers remained relatively unchanged for all levels, output declined; this is the first year that a decline in output has occurred at level 8 as the impact of the downward trend in the construction sector takes a belated effect; it is expected that this trend is due to continue in the medium term due to the reduced number of CAO acceptances and enrolments observed in recent years
- **Computing:** output continues to show significant growth with a 28% and 25% increase for levels 7/6 and level 8 respectively between 2010 and 2011; strong growth in CAO acceptances and enrolments at all levels suggest a continuation of this trend in the medium term<sup>3</sup>
- **Science:** graduate output in this subject has remained relatively unchanged in recent years; enrolment and CAO acceptance data suggests signs of growth in level 8 output in the short term, albeit at a modest level.

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<sup>3</sup>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 double the annual output from honours degree ICT undergraduate programmes by 2018.

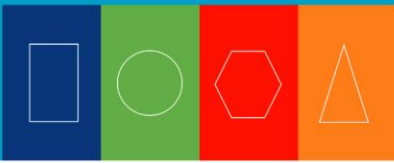
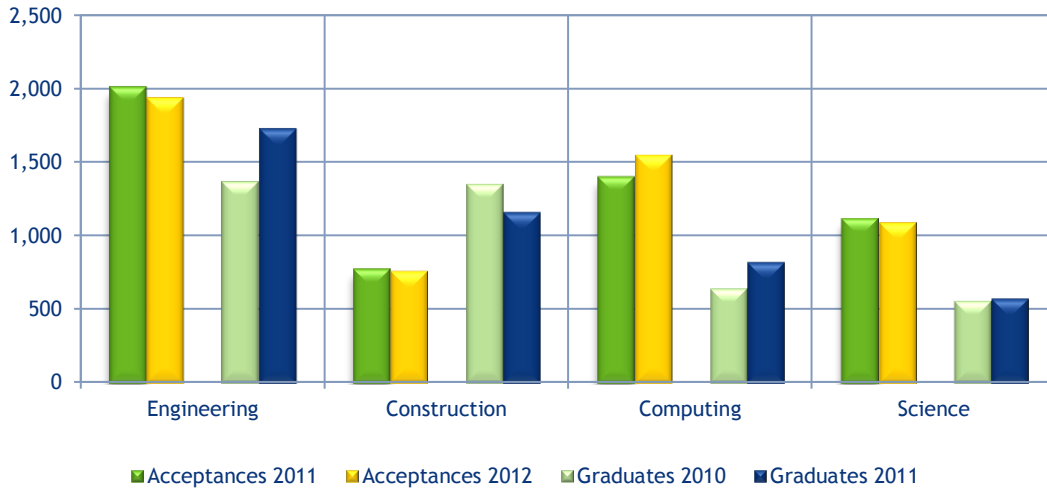
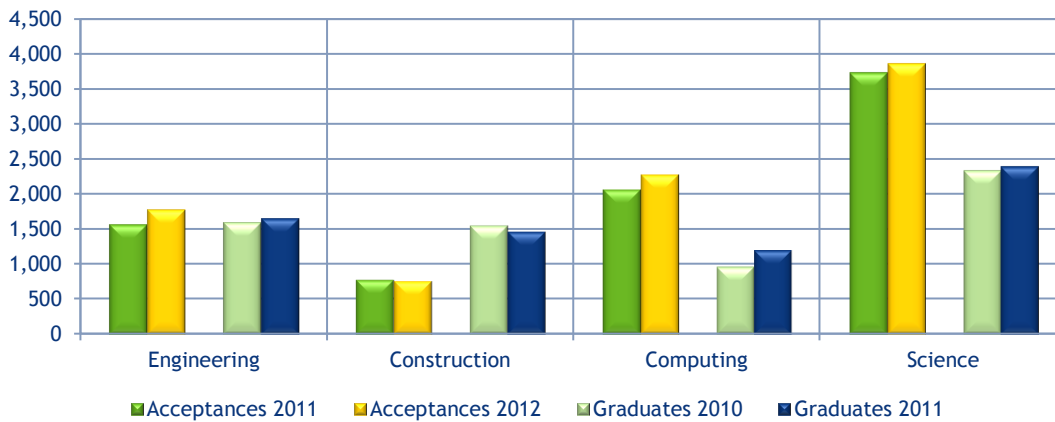


Figure 1 Level 7/6 Science & Technology CAO Acceptances and Graduate Output



Source: CAO; HEA

Figure 2 Level 8 Science & Technology CAO Acceptances and Graduate Output



Source: CAO; HEA

### Postgraduate (NFQ 9-10)

Figure 3 shows the numbers of enrolments and graduations from postgraduate certs/diplomas, master degree and PhD programmes in 2010 and 2011.

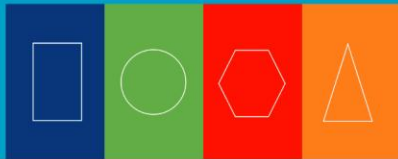
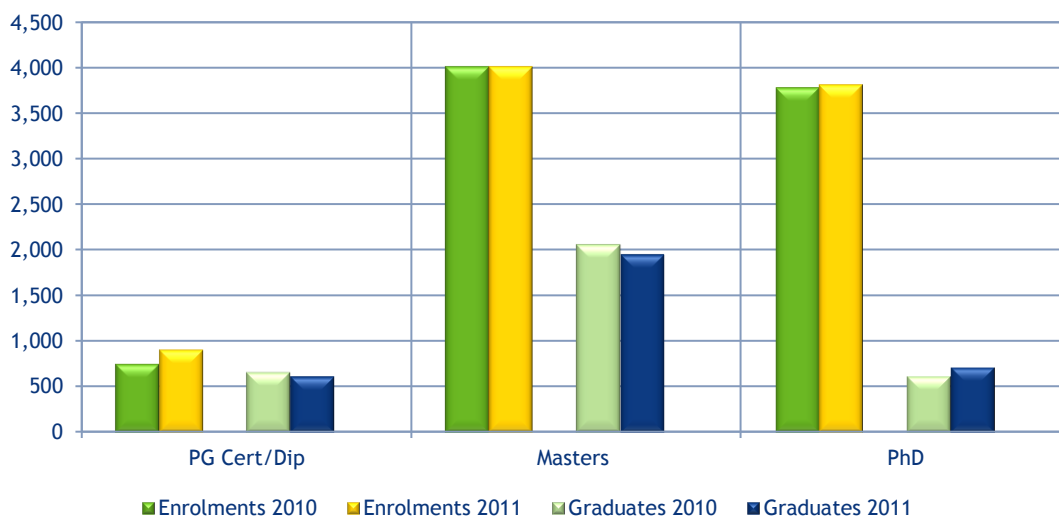
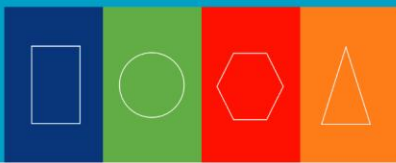


Figure 3 Level 9/10 Science & Technology Enrolments and Graduate Output



Source: HEA

- Postgraduate Certs/Diplomas: despite an overall decline in technology output for this programme type, science output increased by 20%; an increase in enrolments for almost all subject types (particularly computing) suggest a reversal in the overall decline will occur in the short-term
- Masters: the static enrolment figures mask an increase of 62% in enrolments for computing courses and a decline of 37% in science enrolments; conversely, output declined for computing courses but increases occurred in science output (at 14%); a continued decline in overall output is expected in the short to medium term unless the increased uptake on computing courses is sufficient to offset declines in the other subjects
- PhD: while enrolment levels remained relatively static between 2010 and 2011, output increased by 16% (due primarily to an increase of 22% in science subjects); increases in output are not expected in the short to medium term due to unchanged enrolment levels in recent years.



# Chapter 1 Introduction

## 1.1 Description

This chapter outlines the main education and training pathways in Irish education and training, and shows the levels where programmes, and the awards with which they are associated, have been placed according to both national and international classifications. Award types, awarding bodies, classifications are discussed in turn.

Figure 1.1 shows the four interlinked sectors of the education and training system in Ireland. The levels at which awards and programmes in the system have been placed is also indicated in the diagram. Detailed explanations of these level classifications are provided in Section 1.2.

- **Primary level** (shown in orange in the diagram): 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, typically at 13 years.
- **Second level** (shown in yellow and green in the diagram): 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 do a Transition Year Programme - a one year programme which aims to act as a bridge between the junior and senior cycles. Although compulsory education ends at 16 years, the majority of second level students remain in education and training until the end of the senior cycle, usually until the age of 18.
- **Further education and training (FET)** (shown in red): on completing second level education<sup>4</sup>, school leavers have the option of entering 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). Courses in basic literacy, numeracy and adult education (including schemes such as the Vocational Training Opportunities Scheme (VTOS) and the Back to Education Initiative (BTEI), catering for re-entrants to education) are also provided within the further education and training sector. Further education and training awards may also lead to progression to higher education.
- **Higher education** (navy and blue in Figure 1.1): another option for school leavers and holders of further education and training awards (e.g. a QQI-FETAC award) is higher education where learners may pursue an undergraduate level course at an institute of technology (IoT), university (including colleges of education), or private, independent 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.

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<sup>4</sup>Formally, the minimum entry requirement to apprenticeship training is a Junior Certificate, achieved on completion of the junior cycle at second level; however, in practice, most school leavers entering apprenticeship training have completed the senior cycle.

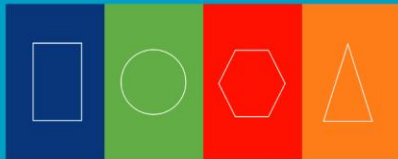
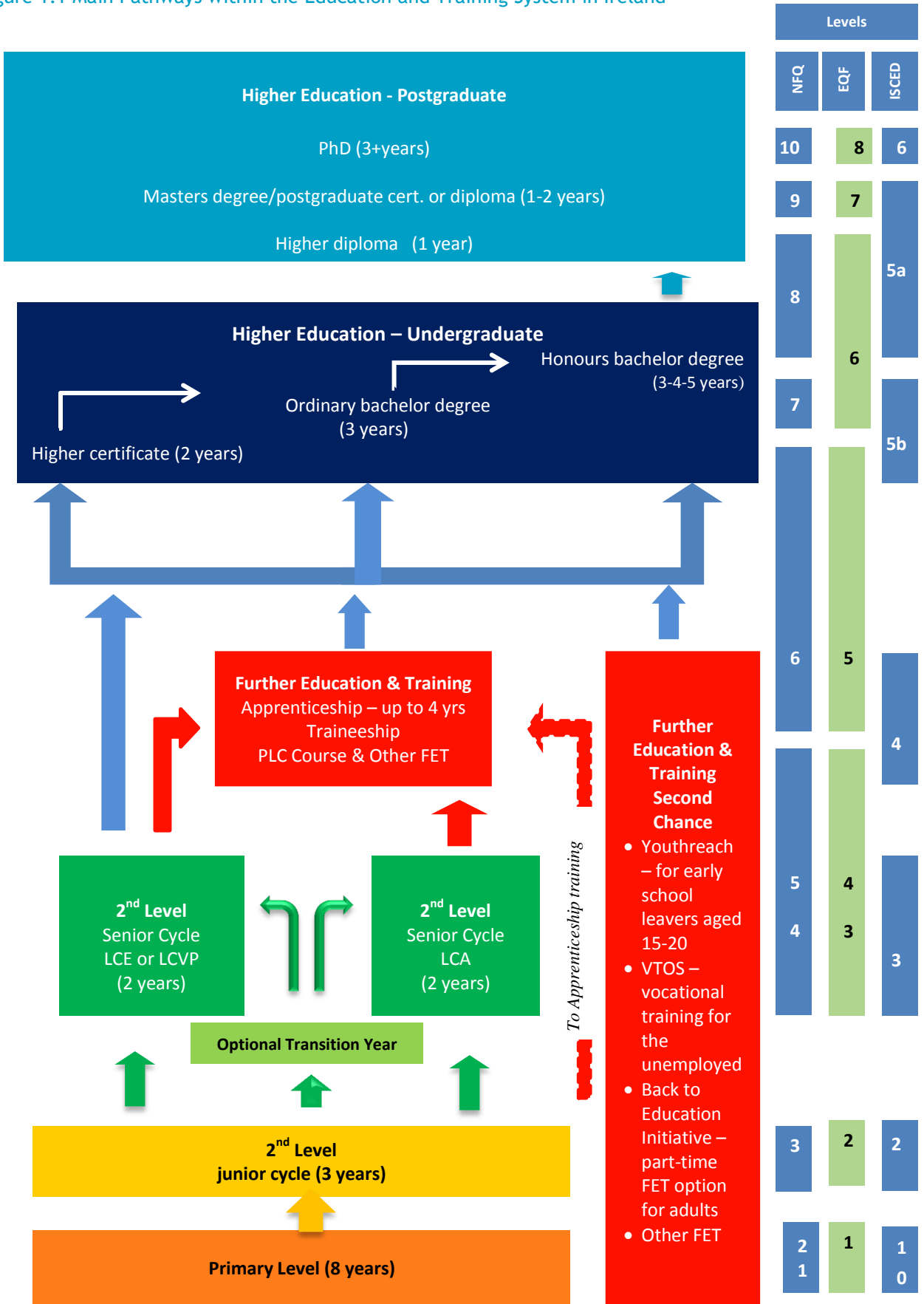


Figure 1.1 Main Pathways within the Education and Training System in Ireland





## 1.2 Awards and Classifications

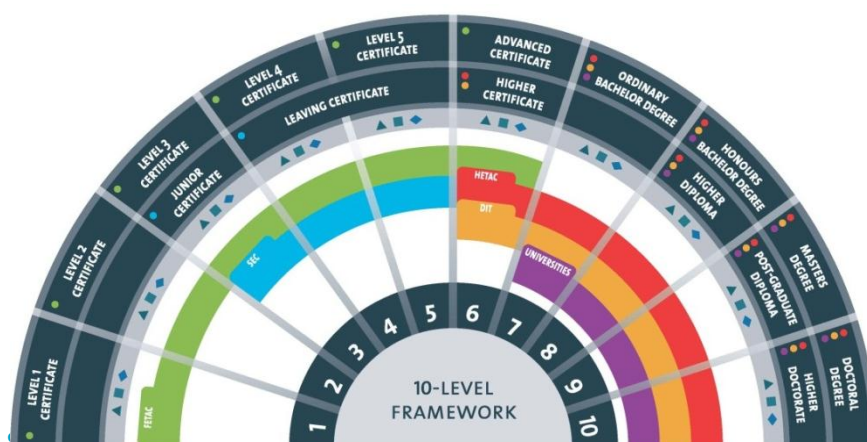
### 1.2.1 The National Framework of Qualifications

The National Framework of Qualifications (NFQ), launched in 2003, is a system of ten levels used to describe the Irish qualifications system. Each level is based on nationally agreed standards of knowledge, skill and competence and reflects what an individual is expected to know, understand and be able to do following successful completion of a process of learning. Almost all awards made through the state funded sector, and many in the private sector, have been placed on the NFQ.

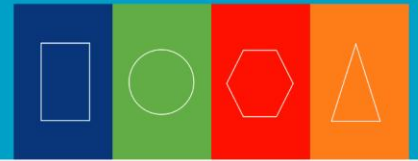
The structure of the Framework is based on award levels and types, outlined in Figure 1.2. There are ten award levels, which indicate the standard of learning (ranging from the most basic to doctoral awards). There are also four award-type categories, which serve as an indicator of the purpose, volume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

- A major award is the main class of award made at a level; examples of major awards include the Leaving Certificate, a QQI-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.

Figure 1.2 National Framework of Qualifications



Source: QQI



## 1.2.2 The European Qualifications Framework

The European Qualifications Framework (EQF) is an overarching qualifications framework and serves to make qualifications from different countries and systems in Europe easier for employers and learners to understand. Its aim is to promote citizens' mobility between countries and facilitate lifelong learning. The EQF consists of eight qualifications levels which, like the NFQ, are described through learning outcomes (knowledge, skill and competence).

The NFQ was referenced to the EQF in June 2009, which means that an award placed on the NFQ has a corresponding place on the EQF. Since some countries across Europe have also referenced their national qualifications systems to the EQF (and other countries are in the process of doing so), it is possible to compare an award on Ireland's NFQ with awards from other systems in Europe. For example, in the UK, a higher national diploma (HND) has been placed at level 5 on England and Northern Ireland's Qualification and Credit Framework (QCF); this corresponds to level 5 on the EQF and therefore level 6 on the NFQ. The 'licence professionnelle' in France has been referenced to EQF level 6 and therefore spans levels 7 and 8 on the NFQ<sup>5</sup>.

## 1.2.3 Awarding bodies in Irish education and training

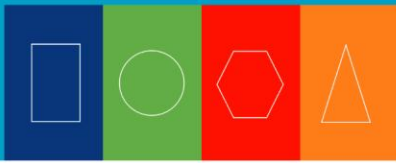
Almost all awards made through the state funded sector, and many in the private sector, have been placed on the NFQ. These awards are made by a variety of bodies across the ten levels of the NFQ.

- School awards: There are two main awards made by the State Examinations Commission (SEC). The Junior Certificate is placed at level 3 on the NFQ and the Leaving Certificate across levels 4-5.
- Further education and training awards: Awards in FET span levels 1-6 on the NFQ. Quality and Qualifications Ireland (QQI) makes awards for the FET sector. In addition, other awarding bodies, (e.g. City and Guilds) also make awards to learners in Ireland that have been aligned with the NFQ at award level. Prior to the establishment of QQI<sup>6</sup>, the Further Education and Training Awards Council (FETAC) was the body responsible for making awards in the FET sector.
- Higher education awards: universities, Dublin Institute of Technology (DIT), QQI and institutes of technology (IoTs) with delegated authority from QQI make awards to learners in the higher education sector, including some awards at private independent third level colleges. Prior to the establishment of QQI, the Higher Education and Training Awards Council (HETAC) had been responsible for making awards in the higher education sector.
- Professional Bodies: some awards made by the ACAI (Institute of Chartered Accountants of Ireland) and ACCA (Association of Chartered Certified Accountants) are aligned with the NFQ.

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<sup>5</sup> [http://ec.europa.eu/eqf/compare/ie/fr\\_en.htm#comparison](http://ec.europa.eu/eqf/compare/ie/fr_en.htm#comparison)

<sup>6</sup> In November 2012, Quality and Qualifications Ireland was established under the Qualifications and Quality Assurance (Education and Training) Act 2012. The new Authority was created by an amalgamation of four bodies: the Further Education and Training Awards Council (FETAC), the Higher Education and Training Awards Council (HETAC), the National Qualifications Authority of Ireland (NQAI) and the Irish Universities Quality Board (IUQB). The new Authority assumed all the functions of the four legacy bodies.



### 1.3 Education and Training Programmes Classifications (ISCED)

Neither the NFQ nor the EQF are designed to classify education and training programmes. Rather, they describe the awards (and associated learning outcomes) achieved on completion of certain programmes. The International Standard Classification of Education (ISCED), on the other hand, is specifically designed to classify education and training *programmes*, taking into consideration various features including programme content, duration, and objectives (e.g. preparation for access to third level or for work in an occupation or a range of occupations etc.).

ISCED is used by the OECD and European Union to gather and compare statistical data on education and training internationally. As the NFQ (and consequently EQF) award levels and ISCED programme categories aim to describe what are essentially different features of education and training, the two classifications are not directly comparable and any comparison between NFQ level and international data (which is classified by ISCED) will only be approximate. However, the ISCED definitions of education levels that correspond to education and training within the Irish system are as follows:

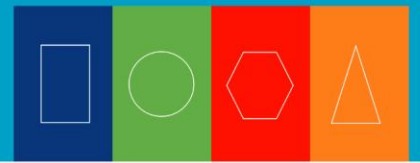
ISCED <sup>7</sup> Level	Corresponds to :
Level 0: Pre-primary education	Early start and other pre-primary
Level 1: Primary education	Primary education
Level 2: Lower secondary	2 <sup>nd</sup> level education - junior cycle
Level 3: Upper secondary	2 <sup>nd</sup> level education - senior cycle
Level 4: Post secondary non-tertiary	Apprenticeship, PLC courses, other FET
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

### 1.4 Education and Training Data Sources

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 the lifelong participation of the adult population
- The State Examinations Commission (SEC) provided data on Junior Certificate and Leaving Certificate examination candidates and results
- The Department of Education and Skills (DES) provided school and PLC course enrolment data
- The Central Applications Office (CAO) supplied data regarding applicants to higher education and their course choice acceptances

<sup>7</sup> Refers to ISCED 1997 classifications. ISCED was revised in 2011 (ISCED 2011); however, as ISCED 2011 was implemented only from November 2011 onwards, international data used in this report was available according to ISCED 1997 only.

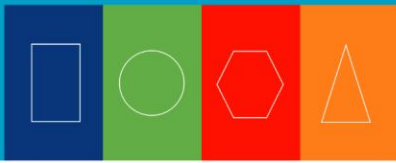


- Quality and Qualifications Ireland (QQI) provided data on recipients of awards from the further education and training sector (QQI-FETAC awards); data on awards issued to those qualifying from selected private and independent higher education and training providers (formerly HETAC awards) was also supplied by QQI
- The Higher Education Authority (HEA) supplied data on higher education enrolments and graduations
- 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
- Data on outgoing Erasmus students from Irish universities is from the Eurostat database
- International higher education data was obtained from the OECD education online database.

This report focuses on the most recent education data available; 2012 data was available for Junior and Leaving Certificate numbers, CAO acceptance data, and QQI-FETAC awards data; the latest available year for higher education data was 2011 (2010 for OECD data). Data from private/independent providers of professional and higher education was available for 2011 or 2012, 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: Chapter 6 focuses on the number of CAO acceptances, enrolments and graduates for undergraduate higher education (i.e. NFQ levels 6, 7 and 8); 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 other education and training provision (including third level, private providers). 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 formal learning activities.



## Chapter 2 Demographic Profile

### Key Points

- While the number of births has fallen slightly since the peak in 2009, at 74,650 in 2011, they continue to be well above those observed in the early and mid-2000s
- There were approximately 69,000 junior infant enrolments in September 2011, the largest number observed over the period 1996-2011
- The number of junior cycle enrolments increased annually since 2007, reaching approximately 61,000 in September 2011, the highest point since 1999
- Given the sustained elevated number of births since 2007, and the continued increases in the numbers of 1-4 year olds in the population,
  - the size of pre-school going age cohort is likely to remain at considerably higher levels than those observed in the early 2000s, at least in the short-medium term
  - the number of junior infant enrolments is unlikely to decrease, at least in the short-medium term
  - the expanding pool of children in the younger cohorts means that the increases observed in the number of junior cycle enrolments are likely to continue in the medium term, resulting in greater numbers of pupils leaving the second level system and potentially entering further and higher education and training as well as the labour market.

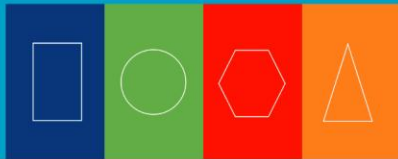
### 2.1 Introduction

This chapter begins with an outline of the demographic information relevant to the education system at key stages. Trends in demographic data are important as the size of the younger cohorts in the population, in part, determine the number of new entrants to various levels of education and training in the years to follow. This chapter first looks at the pre-school age cohort (including the number of births), the primary level age cohort (ages 5-12), second level age cohort (13-18) and the post second level age cohort (which includes both further and higher education and training, typically, although not exclusively, when students are aged 19 years and over).

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) may have implications for enrolments at all levels of the education system in the medium term. Net outward migration is estimated to have risen to 34,400 in the year to April 2012 - amongst the highest since 1989<sup>8</sup>. At the same time, however, the estimated size of the younger age cohorts (aged less than 15 years) increased due to the strong natural increase in the population as well as some inward migration for these age cohorts.

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<sup>8</sup> CSO *Population and Migration Estimates April 2012* (September 2012)

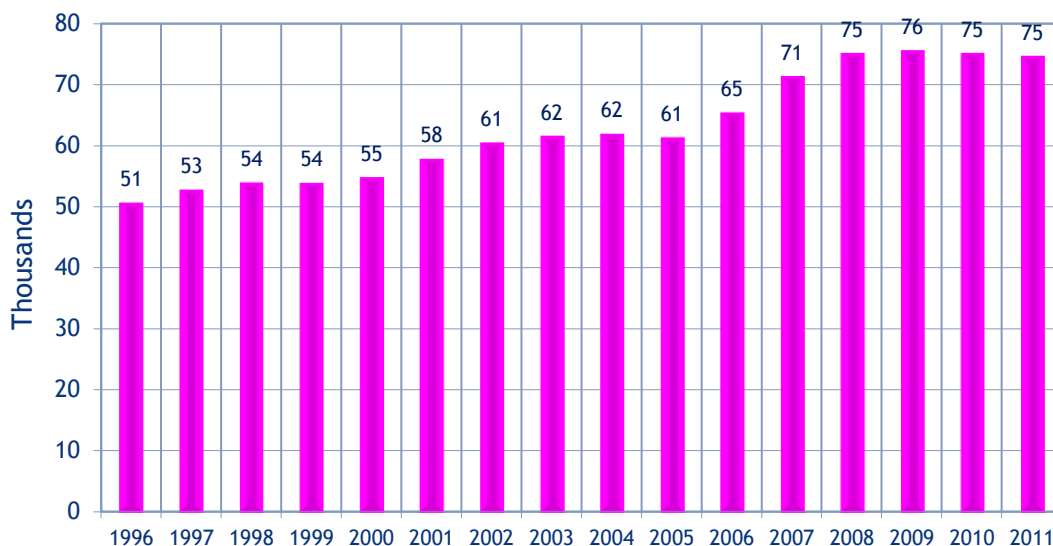


## 2.2 Pre-School Aged Children (0-4 years)

The size of the cohort of children under 5 years of age (by which time most children in Ireland have begun school) is an important indicator of the potential pool of entrants to various levels of the education system in the years to follow. The data examined here includes the number of children born in Ireland over the last number of years<sup>9</sup> and the number of children aged 0-4 years in the population.

- At 75,554, the number of births reached their highest point in 2009 (Figure 2.1); while the number has fallen since then, the 74,650 births recorded in 2011 remained well above those observed in the early and mid-2000s
- CSO Census data (Table 2.1) shows that the number of 4 year olds in 2011 was 22% higher than in 2002; but the increases for the younger years of age were larger, with the number of children under 1 year of age being a third higher in 2011 than in 2002<sup>10</sup>.
- Given the sustained elevated number of births since 2007, and the continued increases in the numbers of 0-4 year olds in the population, the size of pre-school going age cohort is likely to remain at considerably higher levels than those observed in the early 2000s, at least in the short-medium term.

Figure 2.1 Number of Births in Ireland, 1996-2011



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.

<sup>9</sup> Children born in 1996 will be aged 18 by 2014, the age at which many typically leave second level education and enter the further and higher education and training systems.

<sup>10</sup> According to CSO Population and Migration Estimates (2012), the number of people in the pre-school age cohort (0-4 years) has risen annually between 2006 and 2012, reaching almost 365,000 in 2012; this is an increase on the 302,000 estimated for 2006.

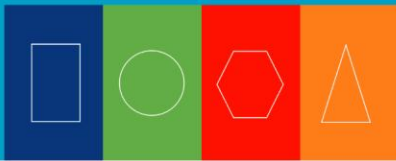


Table 2.1 Population by Year of Age (0-4 Years) and Census Year

Population aged	2002	2006	2011	% change (2002-11)	% change (2006-11)
Under 1 year	54,499	61,076	72,410	33%	19%
1 year	55,362	60,454	72,645	31%	20%
2 years	56,347	60,672	72,566	29%	20%
3 years	56,141	60,431	71,457	27%	18%
4 years	55,281	59,619	67,251	22%	13%
<b>Total aged ≤ 4 years</b>	<b>277,630</b>	<b>302,252</b>	<b>356,329</b>	<b>28%</b>	<b>18%</b>

Source: CSO Census data

### 2.3 Primary School Aged Children (5-12 years)

- There were approximately 69,000 junior infant enrolments in September 2011, the largest number observed over the period 1996-2011 (Figure 2.2)
- With the exception of 2009, the number of junior infants enrolments grew each year since the mid-2000s; the largest increase (+8%) occurred between September 2010 and 2011 and is partly a reflection of the sharp increase in the number of births which occurred in 2007 (some children begin school before the age of 5)
- Given the sustained high number of births observed since 2007, it is likely that the number of junior infant enrolments will remain in or about these elevated levels in the short-medium term
- CSO Census data (Table 2.2) shows that the total size of the primary school age population has increased by 12% since 2006 (or 16% since 2002), reaching over 504,000 by 2011
- Looking at 2011 Census data only, the numbers of children in each year of age group between 5 and 10 years is higher than the current number of 12-year olds, suggesting that in the coming years outflows from the primary school age cohort will be smaller than the current and possible future inflows (given the high number of births)
- According to DES projections (Figure 2.3) the total number of pupils enrolled at primary level is projected to grow annually in the coming years, from approximately 516,000 in 2011 to almost 602,000 by 2020<sup>11</sup>. Even with declines expected to occur thereafter, the total number of primary school enrolments will continue to be above those observed in 2011 until 2030
- CSO (2013) population projections<sup>12</sup> estimate that the size of this cohort of children will continue to expand by between 88,000 and 100,000 over the period 2011-2021.

<sup>11</sup> The DES projections envisage a number of scenarios, depending on different migration and fertility rates. Currently, the DES consider the most likely scenario to be one where net migration will stabilize at zero from 2015 onwards (M1) and the total period fertility rate will gradually decline over time (F2); the M1F2 scenario is presented here.

<sup>12</sup> CSO (2013) Population and Labour Force Projections, 2016-2046

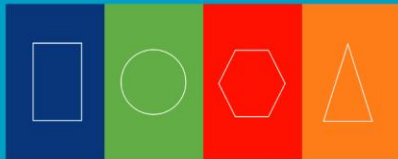
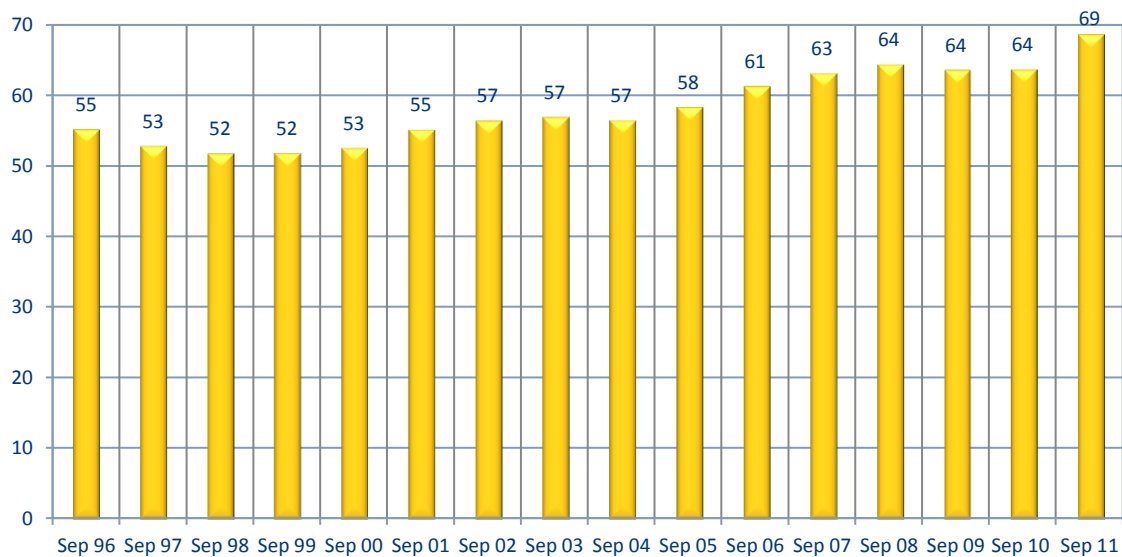


Figure 2.2 Junior Infant Enrolments in Primary Schools (000s), 1996-2011



Source: DES

Table 2.2 Population by Year of Age (5-12 Years) and Census Year

Age	2002	2006	2011
5 years	54,545	58,163	64,937
6 years	52,537	58,197	64,976
7 years	52,012	58,412	64,441
8 years	51,696	57,117	63,816
9 years	53,300	56,436	62,600
10 years	55,636	54,491	61,429
11 years	57,294	53,789	60,834
12 years	56,627	53,469	61,234
<b>Total aged 5-12</b>	<b>433,647</b>	<b>450,074</b>	<b>504,267</b>

Source: CSO Census data



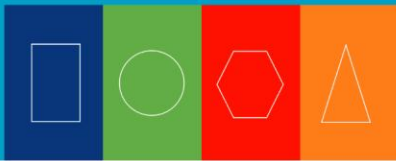
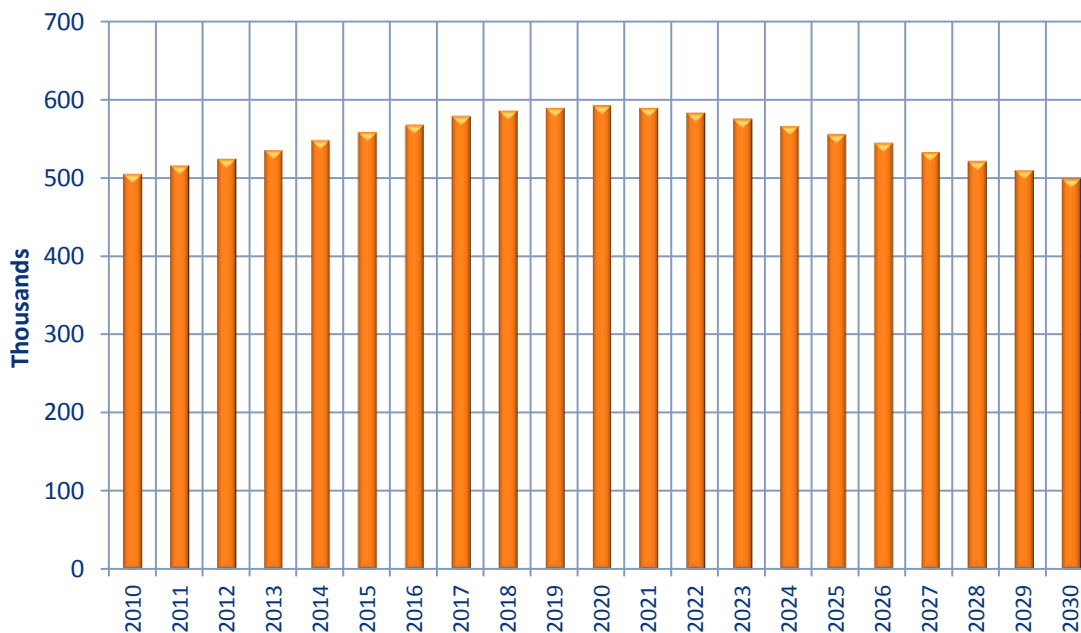


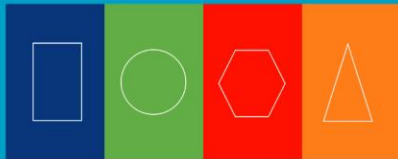
Figure 2.3 Full-Time Enrolment Projections for Primary Level Pupils (M1F1 Scenario), 2010-2030



Source: DES Projections of Full-Time Enrolment Primary and Second Level, 2012-2030 (2012)

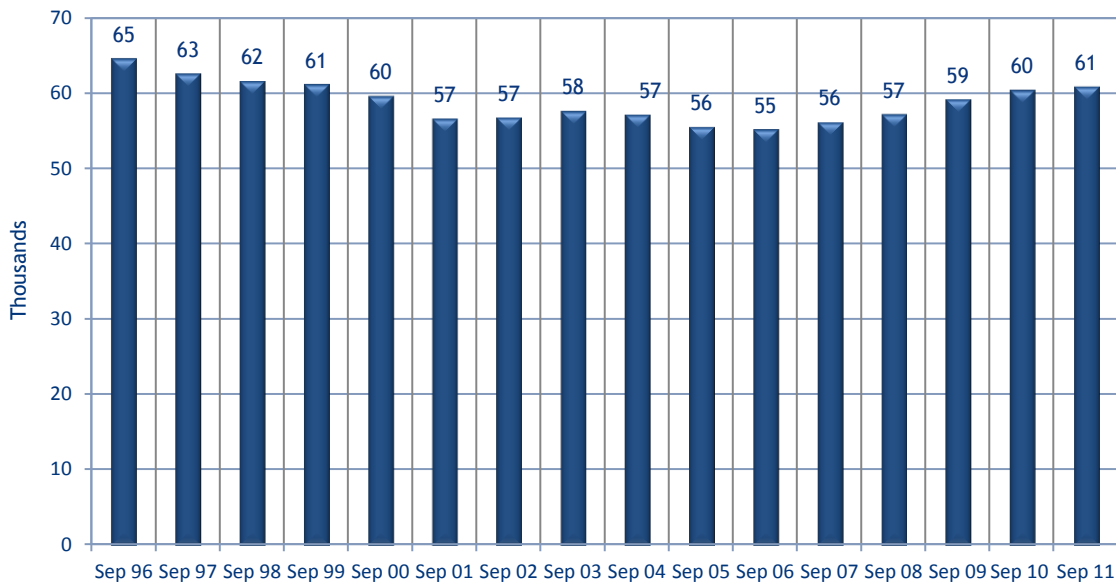
## 2.4 Second Level School Aged Children (13-18 Years)

- Children typically begin the junior cycle (first year at second level school) at aged 12-13 years. Junior cycle enrolments had, in the main, been declining since the mid 1990s, reaching their lowest point in September 2006 at approximately 55,000 (Figure 2.4)
- However, there have been annual increases since then, and given the expanding pools in the pre-school and primary school age cohorts, the number of junior cycle enrolments is likely to continue to grow in the medium-long term
- CSO Census data (Table 2.3) reveals that the total size of this cohort rose slightly (+1%) between 2006 and 2011, reaching approximately 345,000 by 2011
- Looking at 2011 Census data only, the numbers of children in each year of age between 13 and 15 years is higher than the current number of 18-year olds; combined with the anticipated increased outflows from primary level in the coming years, it is likely that inflows to this total age cohort will exceed outflows, with the decline in the overall size in the cohort observed between 2002 and 2011 set to be reversed in the medium term
- According to DES (2012) projections (Figure 2.5) the total number of second level pupils enrolled is projected to grow annually in the coming years, from approximately 323,000 in 2011 to almost 413,000 by 2026. Even with declines expected to occur thereafter, the total number of second level enrolments will continue to be above those observed in 2011 for the foreseeable future



- Population projections by the CSO (2013<sup>13</sup>) estimate the size of the 13-18-year old population will grow by between 105,700 and 116,800 by 2026, representing a rise of approximately one third on the 2011 population.

Figure 2.4 Junior Cycle Enrolments (000s), 1996-2011



Source: DES

Table 2.3 Population by Year of Age (13-18) By Census Year

	2002	2006	2011
13 years	56,677	55,018	59,992
14 years	59,474	57,105	59,002
15 years	60,882	58,318	57,227
16 years	61,682	56,551	56,005
17 years	63,039	56,716	55,865
18 years	63,009	58,326	56,840
Total aged 13-18 years	364,763	342,034	344,931

Source: CSO Census data

<sup>13</sup> CSO (2013) Population and Labour Force Projections, 2016-2046

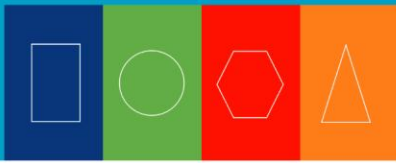
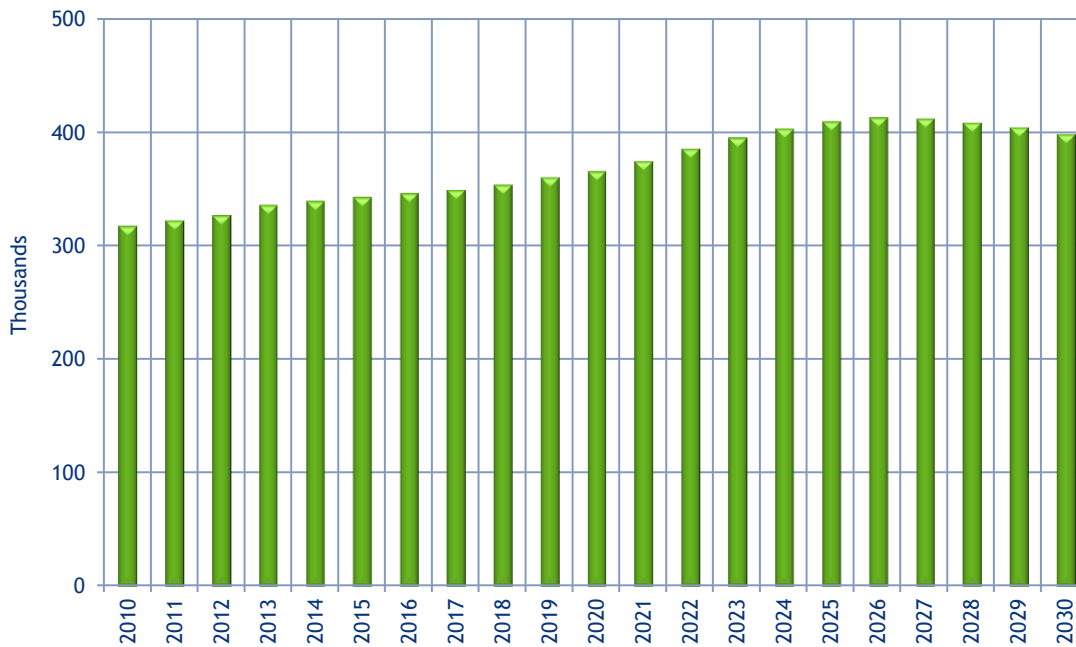


Figure 2.5 Full-Time Enrolment Projections for Second Level Pupils (M1F1 Scenario<sup>14</sup>), 2010-2030



DES Projections of Full-Time Enrolment Primary and Second Level, 2012-2030 (2012)

## 2.5 Further and higher education and training (19 - 22 years)

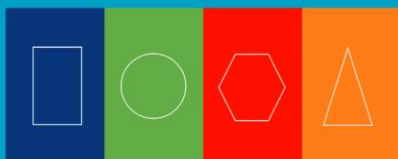
The potential pool of entrants to further and higher education and training is more difficult to capture as factors other than demographics will affect the demand for places (e.g. availability of places, the fact that some learners may not proceed to FET or third level directly on completing second level, labour market opportunities, etc.). Additionally, some learners may complete second level school before the age of 19. Bearing these caveats in mind, this section looks at the pool of 19-22 year-olds in the population and their potential paths within the education and training system on completing second level.

- It is estimated that of those who completed the Leaving Certificate in 2010, more than a quarter entered some form of further education and training (e.g. Post Leaving Cert (PLC) course, FÁS apprenticeship<sup>15</sup> etc.) and approximately one half entered higher education (DES 2013<sup>16</sup>)
- Table 2.4 shows that the majority (60%, or approximately 45,000 individuals) of those entering selected further and higher education and training pathways are aged 19 years or less; less than a quarter are aged 23 years or more

<sup>14</sup> The DES projections envisage a number of scenarios, depending on different migration and fertility rates. Currently, the DES consider the most likely scenario to be one where net migration will stabilize at zero from 2015 onwards (M1) and the total period fertility rate will gradually decline over time (F2); the M1F2 scenario is presented here.

<sup>15</sup> 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.

<sup>16</sup> DES (2013) *School Completers - What Next? Report on School Completers from Post-Primary Schools - pupils enrolled in 2009/2010 and not in 2010/2011.*



- CSO Census data (Table 2.5) gives an indication of the size of this cohort of the population for the years 2002, 2006 and 2011; the overall size of the cohort declined in each of the observed time periods, reaching 233,000 in 2011. However, these declines are set to be reversed in the medium-long term given the anticipated growth in the numbers entering and subsequently leaving the 13-18 year-old age cohort
- 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. Nonetheless, it is estimated that
  - the total number of students enrolled on PLC courses will be 40,000 from 2011 onwards (DES 2011)
  - the number of new apprenticeship registrations for selected trades will be between 1,090 and 1,300 annually between 2012 and 2015, remaining well below the peak of 7,467<sup>17</sup> (FÁS 2011)<sup>18</sup>
- Demand for places at higher level is also expected to grow in the coming years. Between 2011 and 2014, the total number of full-time students enrolled in higher education (at undergraduate or postgraduate level) is expected to increase, going from 166,000 in 2011 to in excess of 181,000 by 2015 (DES 2012). By the year 2026, enrolment is expected to further increase and reach almost 209,000 (assuming 0 net migration at primary and second level from 2015 onwards)<sup>19</sup>.

Table 2.4 New Entrants\* to Higher Education and Selected Further Education & Training, 2012<sup>20</sup>

New Entrants	≤19 yrs	%	20-22 yrs	%	23+ yrs	%	Total	%
PLC 1 <sup>st</sup> Year Enrolments	13,571	43	6,225	20	11,490	37	31,286	100
FÁS Community Training*	1,661	81	399	19	-	-	2,060	100
FÁS Apprenticeship	770	54	489	34	98	12	1,434	100
Higher Education**	29,395	72	5,384	13	6,084	15	40,865	100
<b>Total</b>	<b>45,397</b>	<b>60</b>	<b>12,497</b>	<b>17</b>	<b>17,672</b>	<b>23</b>	<b>75,566</b>	<b>100</b>

Source: HEA; DES; FAS

\* The 20-22 years age category for FÁS community training includes all those aged 20 or more as a more detailed breakdown is unavailable.

\*\* Higher education new entrants are for full-time undergraduate courses.

<sup>17</sup> This figure does not pertain to a particular year; it is the sum of the peak intake for the individual trades in question.

<sup>18</sup> Forecasts of Apprentice Intake into Selected Construction and Non-Construction Trades to 2014 (McGrath & Shally (FÁS) 2011). 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).

<sup>19</sup> These projections are based on the assumption that there will be sufficient capacity within the higher education system to accommodate this level of increased demand for places. It should also be noted that these projections differ from those published in 2011 due to a revision in methodology.

<sup>20</sup> PLC data is per academic year; FÁS data is per calendar year.

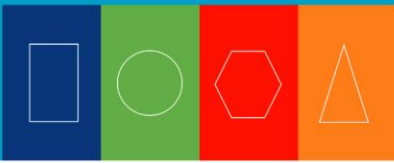
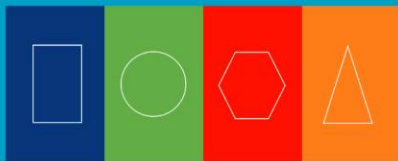


Table 2.5 Population by Year of Age (19-22)

	2002	2006	2011
19 years	64,576	60,346	57,082
20 years	66,355	64,091	59,932
21 years	67,865	65,466	57,930
22 years	67,414	67,904	57,647
Total aged 19-22	266,210	257,807	232,591

Source: CSO Census data



## Chapter 3 Junior Certificate

### Key Points

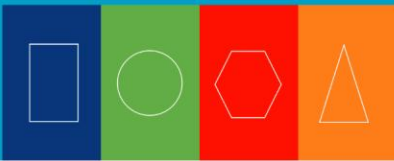
- At almost 59,000 sits in 2012, the number of Junior Certificate sits was 3% higher than in 2011 and the highest number observed over the period 2008-2012
- It is estimated that 96.37% of junior cycle entrants in 2006 went on to sit the Junior Certificate examination in 2009; at 96.66%, females were slightly more likely than males (96.1%) to sit the Junior Certificate
- The take up rates for all but two of the top ten Junior Certificate subjects either remained static or grew over the period 2008-2012; only French and business studies saw a decline in the shares opting to sit these subjects
- While the share of candidates taking higher level mathematics increased by five percentage points between 2008 and 2012, at 48% mathematics was the only subject with a higher level participation rate below 50% in 2012
- Over the period 2008-2012, the share of higher level participants increased for each subject; the most notable increases were for business studies and science, each with a seven percentage point increase
- The share of early school leavers in Ireland declined over the period quarter 4 2008 to quarter 4 2012, going from 11% to 9% of the relevant age cohort; males however were more likely to be early school leavers than females (10% compared to 7% for females in quarter 4 2012)

### 3.1 Introduction

This chapter aims to present an overview of the Junior Certificate examination, which has been placed at level 3 on the National Framework of Qualifications, in terms of candidate numbers, subject choices and achievements. Using CSO data from the Quarterly National Household Survey (QNHS), the share of young adults in the population who are estimated to have ended their full-time education at this level (early school leavers) is also provided.

### 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, when candidates are typically aged 15 years. In 2012, the Department of Education and Skills estimated that 96.37% of the entrants to the junior cycle in 2006 went on to sit the Junior Certificate examination. This marks a slight increase when compared to the preceding year when the retention rate was 95.89%. Females were slightly more likely than males to sit the Junior Certificate; 96.66% of all females who entered the Junior cycle in 2006 sat the examination compared to 96.10% for males.

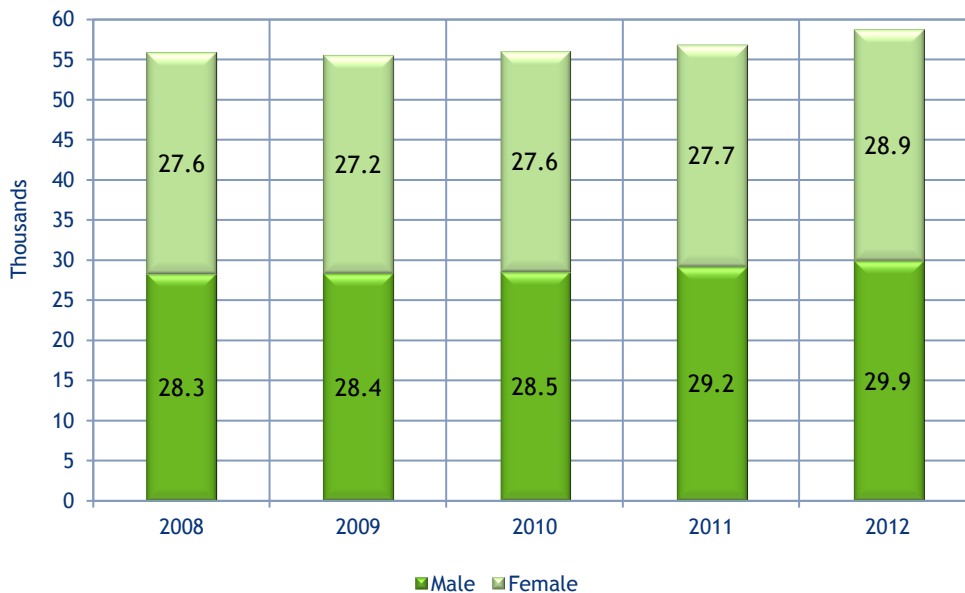


While the majority of Junior Certificate candidates are pupils at second level schools, candidates following an approved course of study outside the State or who are attending an approved course of study organised under the Vocational Training Opportunities Scheme (VTOS), Adult Literacy and Community 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 schemes such as VTOS. 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.

Figure 3.1 shows the number of Junior Certificate sittings over the period 2008-2012.

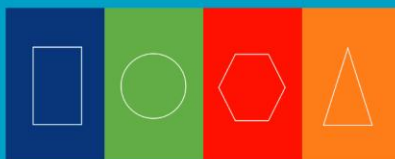
- At almost 59,000 sittings in 2012, the number of Junior Certificate sittings was the highest number observed over the period 2008-2012
- There were an additional 3,000 sittings (+5%) when compared to 2008 and almost an additional 2,000 sittings (+3%) when compared to 2011; these increases, which are in part a reflection of the growth in the number of second level entrants observed since September 2007, will impact on the number of Leaving Certificate sittings in June 2014 and 2015
- Each year, males slightly outnumber females: in the 2012 examination, males made up a 51% share (29,907 sittings); females, a 49% share (28,891 candidates).

Figure 3.1 Junior Certificate Sittings 2008-2012



Source: State Examinations Commission

Note: Data for 2012 is provisional



### 3.3 Junior Certificate Subject Choice and Levels

There are approximately 25 subjects offered in the Junior Certificate examination. 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. The majority of candidates usually sit at least six subjects, although many take between eight and ten subjects.

#### 3.3.1 Top-Ten Subject Choice - Total Sits

Table 3.1 compares the number of sits and take up rates for the most popular Junior Certificate subjects for 2008 and 2012.

- Each year, with a take up rate of 99% each, almost all candidates sat the Junior Certificate examination in English and mathematics
- The vast majority of candidates also sat CSPE; the high take up rates for these three subjects are largely a reflection of the fact that, for most junior cycle pupils, they are compulsory subjects.

The most notable differences observed between 2008 and 2012 are as follows:

- the number of candidates increased for each of the selected subjects in Table 3.1
- with the exception of religious education, science, French and business studies, these increases, mostly of a magnitude of approximately 3,000, were broadly in line with the overall increase in the number of Junior Certificate candidates over the same period
- there was a sharp rise in the number of candidates in religious education (+4,000 sits) and a more modest increase for science (3,655 additional sits); as a result, the take up rates for religious education and science increased by five and one percentage points respectively
- the increases in the number of candidates sitting French and business studies were less than 1,000 each; these were the only subjects where the take-up rates declined.

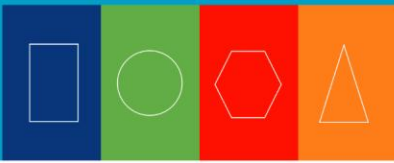
Table 3.1 Junior Certificate Sits and Take-up Rates by Subject, 2008 and 2012

Subject	2008 Sits	2008 Take-up	2012 Sits	2012 Take-up
English	55,295	99%	58,193	99%
Mathematics	55,158	99%	58,069	99%
CSPE	54,492	97%	57,589	98%
Geography	50,967	91%	54,028	92%
History	50,046	89%	53,161	90%
Science**	48,950	88%	52,605	89%
Irish	47,959	86%	50,809	86%
French	34,147	61%	34,757	59%
Business Studies	32,707	58%	33,384	57%
Religious Education	24,508	44%	28,605	49%

Source: State Examinations Commission

\*\* The numbers sitting Junior Certificate Science in 2008 include both those sitting the Revised Syllabus and the 1989 Syllabus



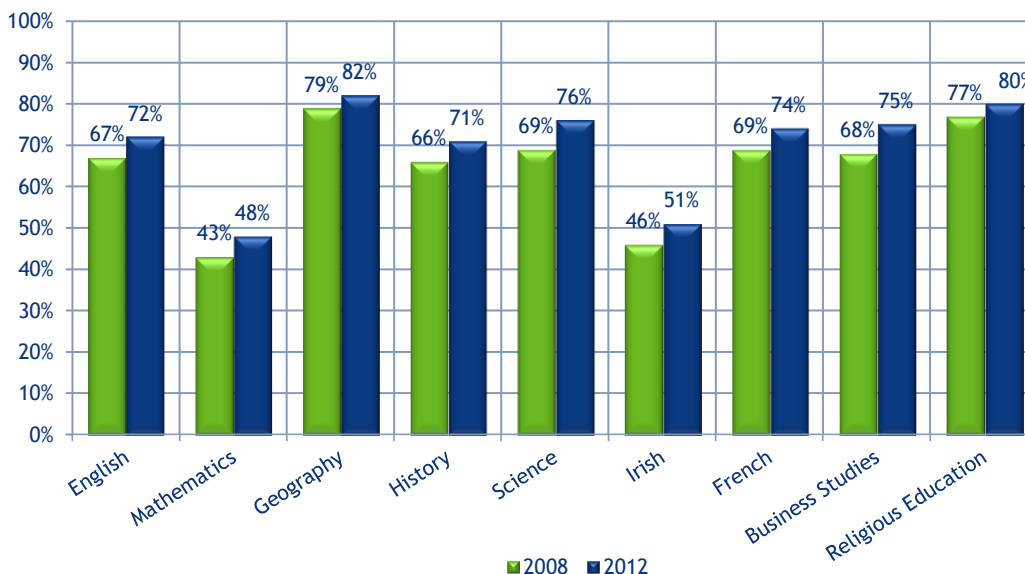


### 3.3.2 Top-Ten Subject Choice - Higher Level Sits

Figure 3.2 shows the extent to which Junior Certificate candidates sat higher level papers in the most popular subjects. CSPE is excluded as it is available at common level only. The data shows that

- with the exception of mathematics, the greater share of students sat these subjects at higher level
- in 2012, the higher level participation rate was greatest for religious education (80%) and geography (82%)
- mathematics had the smallest share of higher level participation, with fewer than half of all candidates taking the examination at this level
- over the period 2008-2012, the share of higher level participants increased for each subject; the most notable increases were for business studies and science, each with a seven percentage point increase
- while the share of candidates taking higher level mathematics increased by five percentage points between 2008 and 2012, it nevertheless remained below 50% in 2012.

Figure 3.2 Junior Certificate Higher Level Participation Rates 2008 and 2012

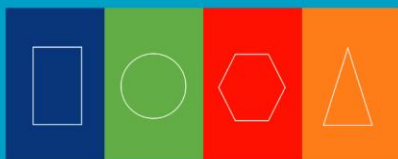


Source: State Examinations Commission

Note: Science in 2008 includes 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 any given year, the vast majority (at least 93%) of Junior Certificate candidates achieved a pass grade (i.e. grade D or higher) in English, mathematics or science, regardless of level
- in mathematics and science, higher level candidates were slightly more likely to achieve a grade D or more than were their counterparts at ordinary level
- at 93% each year, the pass rate was lowest for ordinary level mathematics
- when compared to 2008, the share of students achieving at least a grade D has remained broadly stable, despite a one percentage point decline for each subject at higher level.

In addition, 97% (or 4,086) of the 4,211 students who sat foundation level mathematics obtained at least a grade D in 2012 (not shown in Table). All told, the pass rates for each of the three levels in mathematics averaged 95% in 2012, representing 55,408 candidates; in contrast, 2,661 mathematics candidates received a grade E or lower.

Table 3.2 Junior Cert Student Achievement in English, Maths and Science, 2008-2012

Subject	2008 ≥ D	2009 ≥ D	2010 ≥ D	2011 ≥ D	2012 ≥ D
<b>Higher Level</b>					
English	99%	98%	99%	99%	98%
Mathematics	98%	96%	96%	96%	97%
Science**	99%	98%	99%	99%	98%
<b>Ordinary Level</b>					
English	98%	98%	98%	98%	98%
Mathematics	93%	93%	93%	93%	93%
Science**	96%	96%	96%	96%	96%

Source: State Examinations Commission

\*\* Data for science 2008 includes both the 1989 science syllabus and the Revised Syllabus.

### 3.3.4 Gender Distribution by Subject Choice 2011

The gender distribution of sittings in the top ten Junior Certificate subjects (higher and ordinary level) in 2012 is shown in Table 3.3. At higher level, the gender distribution was

- balanced for geography, history and science
- almost gender balanced for mathematics and business studies, with 51% of females and 49% of males making up total sittings in these subjects
- females dominated for the remaining five subjects; females strongly outnumbered males in art, craft & design (68%), although less strongly in Irish (58%) and French (56%)

At ordinary level on the other hand, males outnumbered females in all selected subjects, particularly in languages (English, Irish and French) and science.

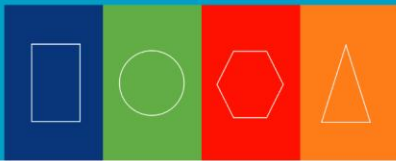


Table 3.3 Gender Breakdown of Higher and Ordinary Level Subjects 2012

	Higher Level				Ordinary Level			
	Total Male	% Male	Total Female	% Female	Total Male	% Male	Total Female	% Female
English	19,471	47%	22,214	53%	9,215	61%	5,824	39%
Maths	13,715	49%	14,198	51%	13,411	52%	12,534	48%
Geography	22,142	50%	22,366	50%	5,079	53%	4,441	47%
History	18,813	50%	19,018	50%	7,866	51%	7,464	49%
Science	19,915	50%	20,075	50%	7,480	59%	5,135	41%
Irish	11,017	42%	15,087	58%	13,030	57%	9,998	43%
French	11,295	44%	14,405	56%	5,178	57%	3,879	43%
Business Studies	12,279	49%	12,719	51%	4,386	52%	4,000	48%
Religious Education	10,359	45%	12,493	55%	3,231	56%	2,522	44%
Art, Craft, Design	4,988	32%	10,730	68%	3,369	54%	2,856	46%

Source: State Examinations Commission

### 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** (Table 3.4), a greater share of females than males obtained a grade C or above in each of the selected subjects
- The gender gap was most pronounced for languages, religious education and art, craft & design with a difference of at least ten percentage points between the shares of males and females obtaining at least a grade C
- At two percentage points, the smallest gender gap amongst higher level subjects was for geography
- **At ordinary level**, females outperformed males in most selected subjects, except geography (Table 3.5)
- As with higher level, at ordinary level the gender gap was most pronounced for languages, art, craft & design, and religious education.

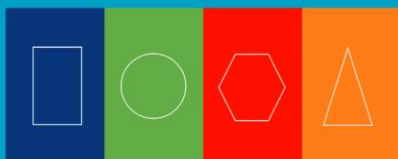


Table 3.4 Gender Differences in Achievement at Higher Level, Junior Certificate 2012

	Males $\geq$ C	% Males*	Females $\geq$ C	% Females*	Difference (Percentage Point)
English	13,688	70%	18,220	82%	12
Maths	10,587	77%	11,531	81%	4
Geography	16,907	76%	17,426	78%	2
History	12,784	68%	14,318	75%	7
Science	14,964	75%	16,398	82%	7
Irish	8,014	73%	12,912	86%	13
French	7,189	64%	10,668	74%	10
Business Studies	9,591	78%	10,407	82%	4
Religious Education	8,519	82%	11,608	93%	11
Art, Craft, Design	4,007	80%	9,840	92%	12

Source: State Examinations Commission

Table 3.5 Gender Differences in Achievement at Ordinary Level, Junior Certificate 2012

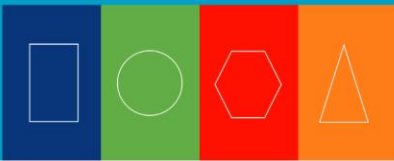
	Males $\geq$ C	% Males*	Females $\geq$ C	% Females*	Difference (Percentage Point)
English	6,927	75%	4,989	86%	11
Maths	9,820	73%	9,947	79%	6
Geography	3,977	78%	3,427	77%	-1
History	5,926	75%	5,695	76%	1
Science	5,819	78%	4,324	84%	6
Irish	9,193	71%	8,373	84%	13
French	2,915	56%	2,655	68%	12
Business Studies	3,292	75%	3,224	81%	6
Religious Education	2,591	80%	2,260	90%	10
Art, Craft, Design	2,468	73%	2,405	84%	11

Source: State Examinations Commission

\* % 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). However, a



small minority do not. The DES (2013)<sup>21</sup> estimated that of all those who do not remain in second level education to sit a Leaving Certificate, more than one half leave before the first year of the Leaving Certificate programme (i.e. leave after Junior Certificate or enrolment in Transition year).

Students who cease their education and training at this point are often referred to as early school leavers. The CSO, among others, 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 preceding four weeks prior to the survey. This section looks at the share of early school leavers in the population; the data is derived from the Quarterly National Household Survey (QNHS).

As shown in Table 3.6, 9% of all 18-24 year-olds had attained, at most, lower secondary education qualifications in quarter 4 2012. This is the lowest share of early school leavers observed over the period quarter 4 2008- quarter 4 2012.

Males were more likely than females to be early school leavers. In quarter 4 2012, 10% of males in the relevant age cohort were early school leavers compared to 7% for their female counterparts. Nonetheless, the gender gap has narrowed over the period quarter 4 2008 to quarter 4 2012: while the share of male early school leavers was near double that of females in quarter 4 2008, by quarter 4 2011, the gap had been reduced to just three percentage points.

**Table 3.6 Early School Leavers as a Percentage of 18-24 Year-Olds by Gender, Quarter 4 2008- Quarter 4 2012**

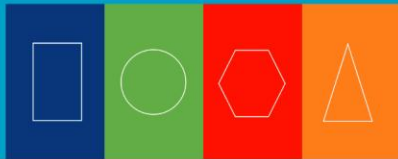
	Q4 2008	Q4 2009	Q4 2010	Q4 2011	Q4 2012
Male Early School Leavers	15%	16%	13%	12%	10%
Female Early School Leavers	8%	9%	9%	9%	7%
Total Early School Leavers	11%	12%	11%	11%	9%

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

Figure 3.3 shows the share of early school leavers across EU countries in 2011, the latest year for which comparable data is available<sup>22</sup>. The share of early school leavers across the EU 27 countries in 2011 was, on average, 13.5%. Ireland, with an early school leaver rate of 10.6%, compares favourably internationally, ahead of countries such as the United Kingdom (15%), France (12%) and Germany (11.5%). Nonetheless, eleven countries have early school leaver rates that are lower than

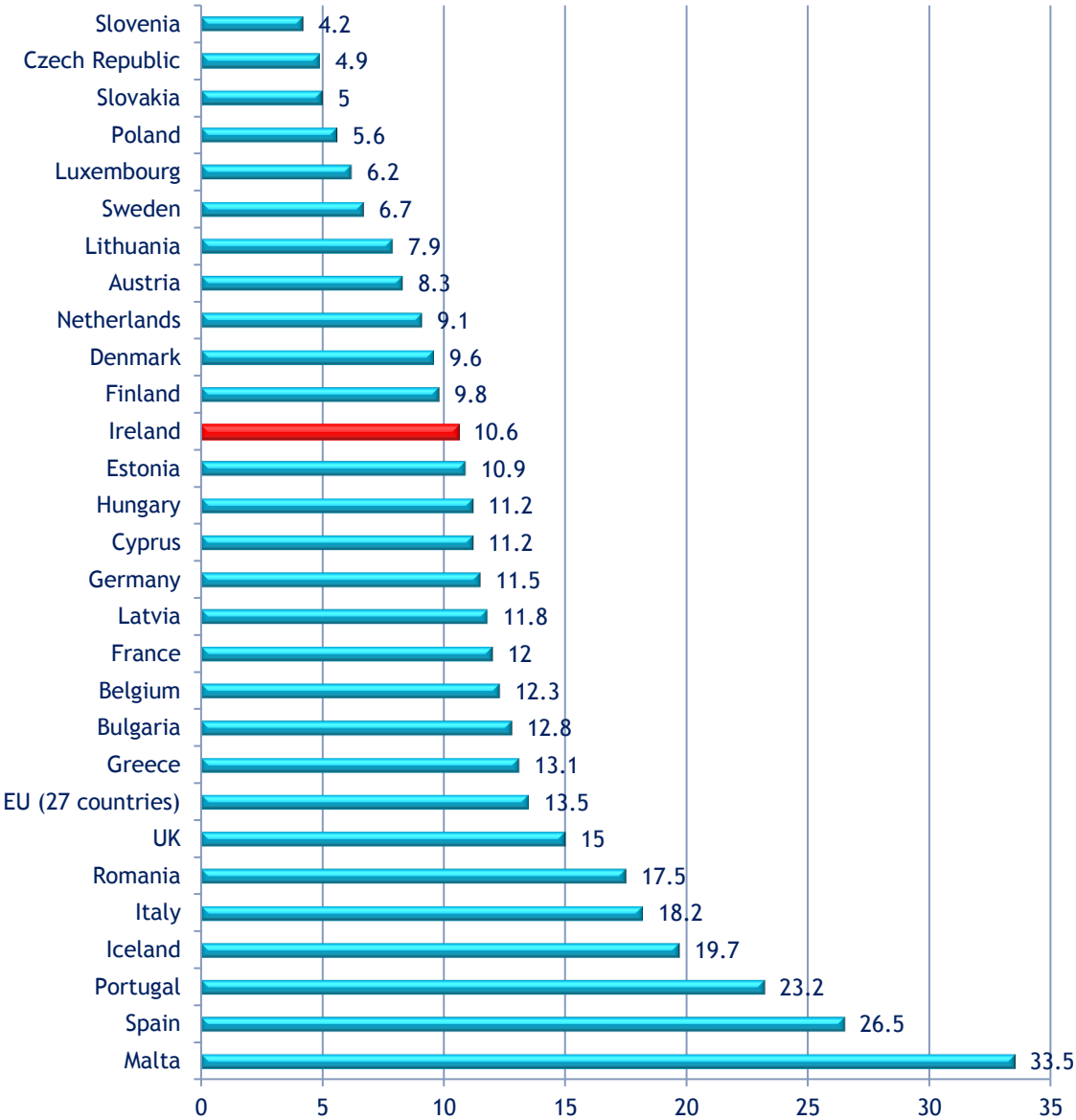
<sup>21</sup> Early Leavers - What Next? Report on Early Leavers from Post-Primary schools - pupils enrolled in 2009/2010 and not in 2010/2011.

<sup>22</sup> The figure for Ireland used in Figure 3.3 is based on an annual average for 2011 and so may differ slightly from the values in Table 3.6 above, which is based on quarter 4 data only.



Ireland's, with some (i.e. Slovenia, Czech Republic, and Slovakia) having an early school leaver rate less than half that observed for Ireland.

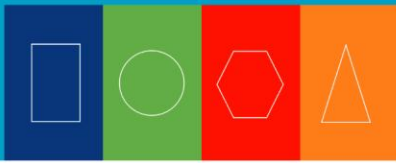
Figure 3.3 Early School Leavers as a Percentage of 18-24 Year-Olds in EU Member States, 2011



Source: Eurostat 2012

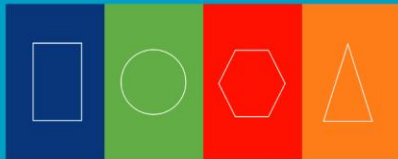
### 3.5 International Comparison: PISA Results 2009

The Programme for International Student 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 and 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.

Results from PISA 2009 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, although Ireland climbed two places in science.



## Chapter 4 Leaving Certificate (Levels 4/5)

### Key Points

- Approximately 56,000 students sat the Leaving Certificate in 2012, representing a 3% decline on 2011
- This decline is likely to be reversed over the short-medium term as increases in junior cycle entrants (beginning in September 2007) and Junior Certificate sittings (beginning in June 2010) come to be reflected in the Leaving Certificate numbers in the short-medium
- Of the total cohort of students who entered first year of second level in 2006, approximately 90% went on to the Leaving Certificate examination; females were more likely than males to sit the exam, with a retention rate of 91.8%, compared to 88.7% for males
- English and mathematics had the highest number of sittings, with in excess of 50,000 sittings each
- Biology was the only science subject in the top-ten; chemistry and physics were ranked 12<sup>th</sup> and 15<sup>th</sup> respectively
- With the exception of mathematics and Irish, the majority of candidates in each of the top ten Leaving Certificate subjects sat the higher level paper
- In contrast, only 11,000 (22%) sat higher level mathematics, although this share was substantially above the 16% observed in 2011
- Overall, female candidates were more likely than their male counterparts to achieve at least a D grade in each of the top ten subjects, at both higher and ordinary level
- At 58% in 2012 and 57% in 2011, the greater share of students achieved at least 300 CAO points (equivalent to at least a D2 grade in six higher level papers) each year.

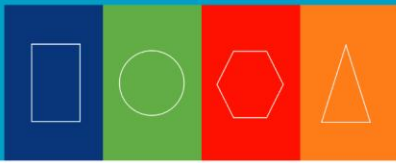
### 4.1 Introduction

This chapter looks at the potential supply of skills from persons completing the Leaving Certificate, which spans levels 4 and 5 on the National Framework of Qualifications. First, a short description of the Leaving Certificate and candidates is provided, followed by an analysis of Leaving Certificate trends according to (a) science and related subjects, (b) business and related subjects, (c) languages and (d) gender distribution of subject choices. Grade achievements for key subjects are also included. The final section of this chapter examines recent trends in CAO 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 second level students and are typically 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 to education, entered for the Leaving Certificate examination through programmes such as the Vocational Training Opportunities Scheme (VTOS); this is almost a 20% drop on the number in 2010.

Not all students who enter second level education will complete the Leaving Certificate. It is estimated (DES 2012)<sup>23</sup> that, of the total cohort of students who began the junior cycle (i.e. first year of second level) in 2006,

- approximately 90% sat the Leaving Certificate examination in June 2011 or 2012; (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)
- females were more likely than males to sit the examination: 91.8% of the female entry cohort in 2006 went on to sit the Leaving Certificate, compared to 88.7% of their male counterparts
- the retention rate increased slightly for both males and females between the 2005 and 2006 entry cohorts, continuing the trend observed in recent years<sup>24</sup>.

Figure 4.1 shows the total number of Leaving Certificate candidates each year between 2008 and 2012.

- There were more than 55,800 Leaving Certificate candidates in 2012, with males and females sitting the examination in almost equal numbers (there were 27,624 female candidates and 28,191 males)
- There was a 3% decline (amounting to 1,700 fewer sits) between 2011 and 2012; when compared to 2008, however, the number is marginally higher (+ approximately 200 sits)
- There were 2,482 repeat Leaving Certificate candidates in 2012, representing a 16% decline since 2011; this is the first decline in the number of repeat candidates since 2008
- Despite the declining number of Leaving Certificate candidates observed since 2010, the trend is likely to be reversed in the short-medium term, given the increasing numbers of Junior Certificate sits (which began to grow, albeit gradually, in 2010).

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<sup>23</sup> *Retention Rates of Pupils in Second Level Schools 2005 and 2006 Entry Cohorts (DES: 2012)*

<sup>24</sup> Due to a revised methodology, the retention rates for 2005 and 2006 are not directly comparable with preceding years.

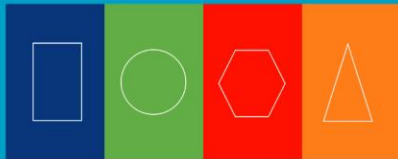
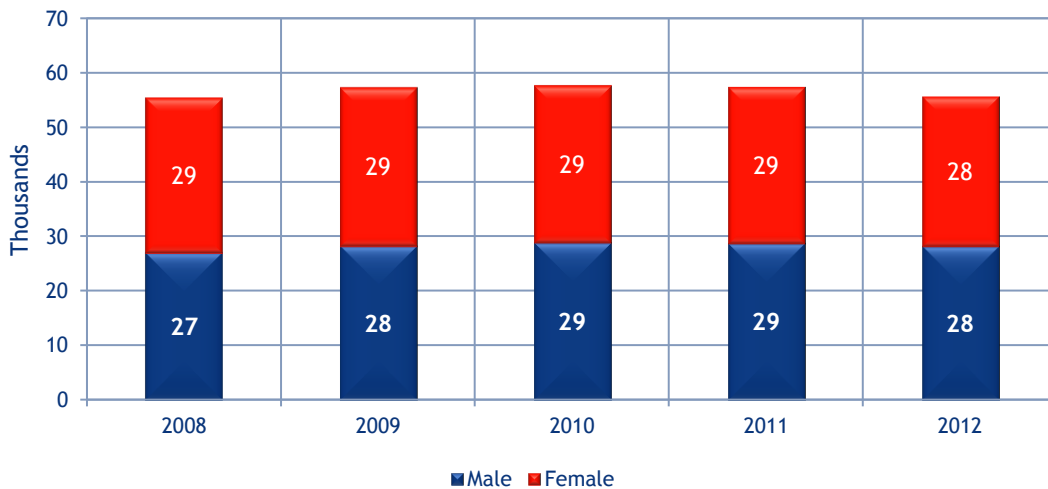


Figure 4.1 Number of Leaving Certificate Candidates, 2008-2012



Source: State Examinations Commission

Note: Data for 2012 is provisional

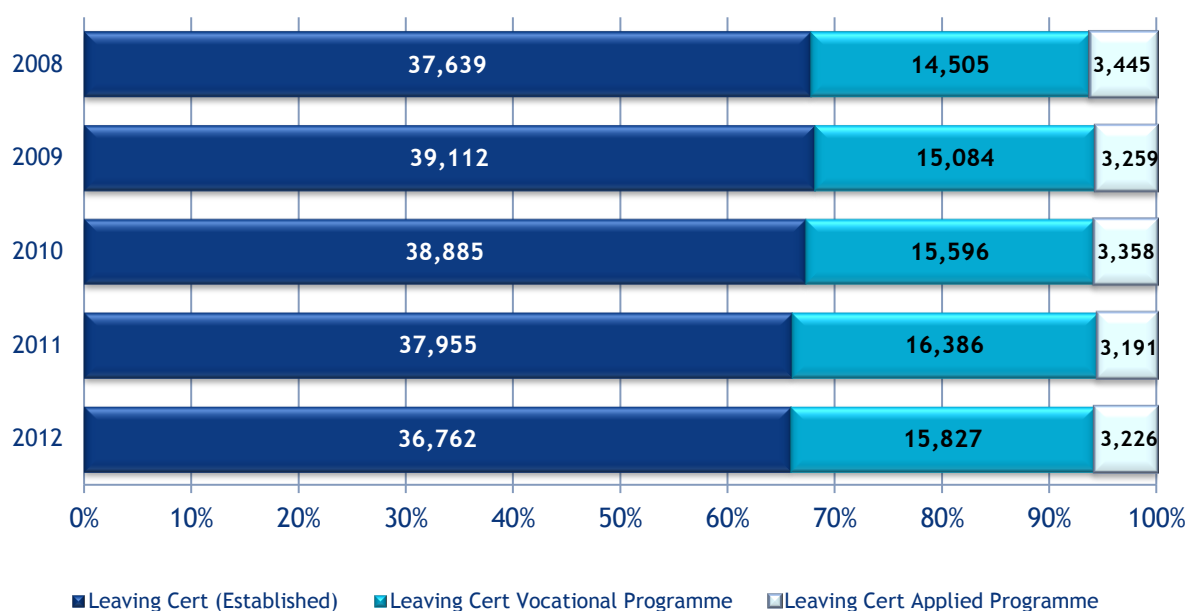
### 4.3 Leaving Certificate Programme Types

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.

In 2012, approximately two thirds of all candidates took the Leaving Certificate Established, 28% the LCVP and the remaining 6%, the LCA programme (Figure 4.2). This pattern is broadly in line with that of preceding years, with the exception of a two percentage point shift away for the Leaving Certificate Established towards the LCVP; the share taking the LCA programme remained unchanged at 6% over the period 2008-2012.

Figure 4.2 Leaving Certificate Candidates by Programme Type, 2008-2012



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 (with the exception of the Links Module for the LCVP candidates). As shown in Figure 4.3,

- English and mathematics had the highest number of sittings, with in excess of 50,000 sittings each; this was followed by Irish (almost 43,000 sittings); the relatively high number of sittings in these three subjects is in part related to the fact that they are compulsory subjects for most second level students and are often a requirement for entry to higher education
- biology was the only science subject in the top-ten; chemistry, agricultural science and physics were ranked 12<sup>th</sup>, 13<sup>th</sup> and 15<sup>th</sup> respectively
- with the exception of languages and mathematics, at least two thirds of candidates sitting each of the top ten Leaving Certificate subjects sat the higher level paper, with the share reaching almost three quarters for some of the most popular subjects such as biology (74%), art (76%) and geography (78%)
- in contrast, only 11,000 (22%) sat higher level mathematics, although this share was substantially above the 16% observed in 2011
- approximately 11% of all mathematics students and 10% of all Irish students took the foundation level examination.

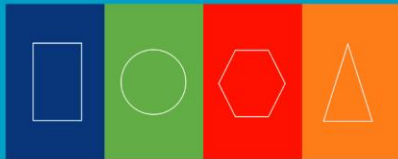
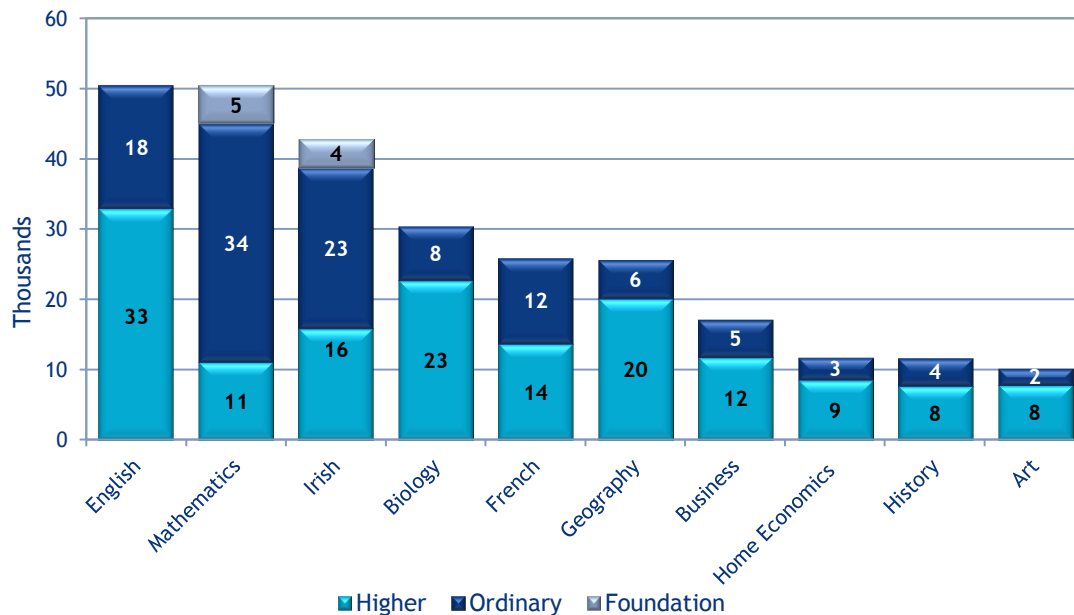


Figure 4.3 Top Ten Leaving Certificate Subjects by Level (000s), 2012



Source: State Examinations Commission

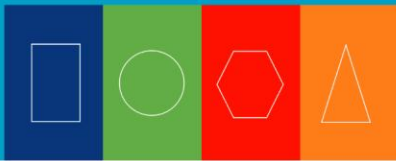
#### 4.4.2 Science Subjects

This section focuses on mathematics and subjects known as ‘core science subjects’ or ‘laboratory science subjects’<sup>25</sup>. 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 dentistry programme at UCC requires at least a grade C in higher level chemistry (in addition to mathematics and either physics or biology) and the human health and disease programme at Trinity College requires at least a grade C in higher level biology.

The total number of sittings, 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 2008 and 2012 are presented in Table 4.1. In 2012,

- almost all students (96%) sat mathematics
- biology was the most popular of the remaining science-related subjects, with an uptake rate of 58%
- the uptake rates for chemistry and physics were 15% and 12% respectively, while just 1% of all Leaving Certificate students sat phys-chem.

<sup>25</sup> 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.



The most notable changes over the five-year period were:

- an increase in the take-up rate for biology (up from 51% to 58% over the five-year period); when compared to 2008, there were approximately 4,000 additional students sitting biology in the Leaving Certificate examination
- a decline in the uptake rate for physics (down from 14% to 12%), but a slight increase in the rate for chemistry (up from 14% to 15%)
- although the share of candidates sitting the higher level mathematics has increased substantially over the five-year period (from 17% to 22%), it continues to have by far the smallest higher level participation rate of all Leaving Certificate subjects outlined in this report.

Table 4.1 Selected Science Subjects: Total Sits, Uptake Rate and Higher Level Participation 2008 and 2012

	2008			2012		
	Sits	Uptake	Higher Level Participation	Sits	Uptake	Higher Level Participation
Maths	50,121	96%	17%	50,442	96%	22%
Biology	26,607	51%	69%	30,536	58%	74%
Chemistry	7,114	14%	83%	8,086	15%	83%
Physics	7,113	14%	79%	6,373	12%	75%
Phys-chem	598	1%	76%	405	1%	76%

Source: State Examinations Commission

### Science Subject Combinations

- The Leaving Certificate students who took at least two science subjects (biology, physics, chemistry, or phys-chem) in 2012 are shown in Table 4.2. The most popular combination of core science subjects was biology and chemistry (5,814 sits), followed by biology and physics (2,118).
- When compared to 2011, there were increases in the number of students sitting each of the two-subject combinations, except biology and phys-chem; the increase, at 8% (or 452 additional candidates) was greatest for those sitting both biology and chemistry; this is in contrast to the decline in overall Leaving Certificate numbers (Figure 4.1), as well as the relatively smaller growth (+1%) in the total number of biology sits over the same period.

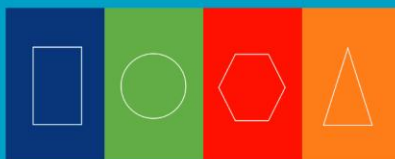


Table 4.2 Students Sitting at Least Two Leaving Certificate Science Subjects, 2011-2012

Subject Combinations	2011 Sits	2012 Sits
Biology & Chemistry	5,362	5,814
Biology & Physics	1,997	2,118
Chemistry & Physics	1,916	1,976
Biology & Phys-Chem	237	181

Source: State Examinations Commission

#### 4.4.3 Selected Business Related Subjects

The number of Leaving Certificate students who took business, accounting or economics in the examinations in 2008 and 2012 is provided in Table 4.3:

- approximately one third of all Leaving Certificate candidates opted to sit the examination in business, making it the most popular subject in this group; in 2012, this amounted to over 17,200 sits
- uptake rates, however, were considerably smaller for the remaining two subjects, accounting (11% ) and economics (9%)
- when compared to 2008, the uptake rate for business and accounting declined
- in 2012, at least two thirds of the candidates sitting these subjects took the higher level paper with the rate being considerably greater for economics at 81%; in addition, the higher level participation increased by four percentage points for business and economics.

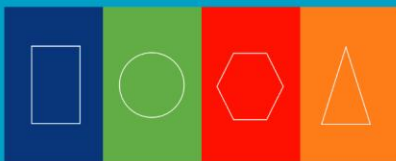
Table 4.3 Selected Business Subjects: Total Sits, Take-up and Higher Level Participation 2008 and 2012

	2008			2012		
	Sits	Uptake	% Higher Level	Sits	Uptake	% Higher Level
Business	18,733	36%	65%	17,248	33%	69%
Accounting	6,837	13%	70%	5,605	11%	69%
Economics	4,423	8%	77%	4,624	9%	81%

Source: State Examinations Commission

#### 4.4.4 Selected Language Subjects

English and Irish are compulsory subjects for most second level students, while entry to many courses in some higher education institutions requires a third language (e.g. the commerce programme at NUI Galway or psychology at UCD). The number of students who sat the five most popular languages in the Leaving Certificate examinations in 2008 and 2012 is outlined in Table 4.4:



- the languages with the highest uptake rates in 2012 were English (96%) and Irish (82%), reflecting the fact that these two subjects are compulsory for most second level students
- in contrast, the uptake rate for any of the foreign<sup>26</sup> languages presented is less than 50%
- of the foreign languages, French was the most popular subject, with almost 26,000 sits (or 49%), followed by German (almost 7,000 sits, or 13%) and Spanish (more than 4,000 sits, or 8%)
- the share of students who sat Irish or French decreased by four percentage points over the period 2008-2012; the share sitting German also declined slightly (down one percentage point); in contrast, Spanish increased by two percentage points to 8%
- most language subject candidates sit the higher level paper, with the exception of Irish (37%)
- despite the decline in uptake for many languages, the higher level participation rate rose for all subjects between 2008 and 2012.

Table 4.4 Selected Languages: Total Sits, Uptake and Higher Level Participation 2008 and 2012

	2008			2012		
	Sits	Uptake	% Higher Level	Sits	Uptake	% Higher Level
English	49,383	95%	64%	50,517	96%	65%
Irish	44,660	86%	31%	42,965	82%	37%
French	27,697	53%	51%	25,977	49%	53%
German	7,466	14%	59%	6,787	13%	64%
Spanish	2,965	6%	54%	4,330	8%	58%
Italian	257	0%	56%	384	1%	72%
Japanese	127	0%	78%	239	0%	81%

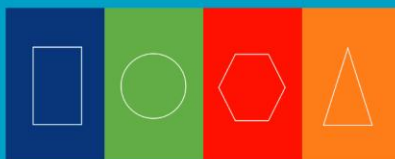
Source: State Examinations Commission

## Foreign Language Subject Combinations

Table 4.5 shows the number of students who sat at least two foreign languages in the 2012 Leaving Certificate examination. The data is broken down by languages taken. The foreign languages covered are: French, German, Spanish, Italian, Russian<sup>27</sup> 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.

<sup>26</sup> 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.

<sup>27</sup> 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.



In 2012, approximately 1,000 students sat at least two of the above-cited languages in the Leaving Certificate, slightly more (+2%) than in 2011. Of these, over three quarters (or 760 students) sat French in combination with another language - mostly either Spanish or German. In all, 3% of all French candidates and 6% of all German students sat an additional language in the 2012 examination.

Table 4.5 Students Sitting at Least Two Leaving Certificate Foreign Language Subjects, 2012

	French	German	Spanish	Italian	Japanese	Russian	Total
French	*	258	270	63	78	91	760
German	258	*	49	26	24	39	396
Spanish	270	49	*	35	25	20	399
Italian	63	26	35	*	3	3	130
Japanese	78	24	25	3	*	0	130
Russian	91	39	20	3	0	*	153

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 2008-2012. As outlined in Table 4.6,

- the total number of non-curricular language sits increased by more than 800 (or 153%) between 2008 and 2012
- Polish had the highest number of sits among all non-curricular languages every year, accounting for 52% of all non-curricular language sits in 2012.

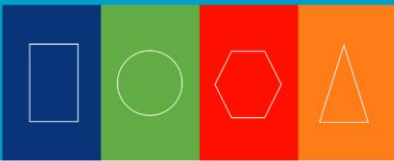
Table 4.6 Non-Curricular Languages (Sits) 2008-2012

	2008	2009	2010	2011	2012
Polish	171	328	451	574	707
Lithuanian	131	176	207	254	262
Romanian	67	92	121	115	109
Others*	65	87	97	122	122
Latvian	50	48	96	111	87
Portuguese	29	55	49	57	63
Dutch	28	31	29	29	20
Total	541	817	1,050	1,262	1,370

Source: State Examinations Commission

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

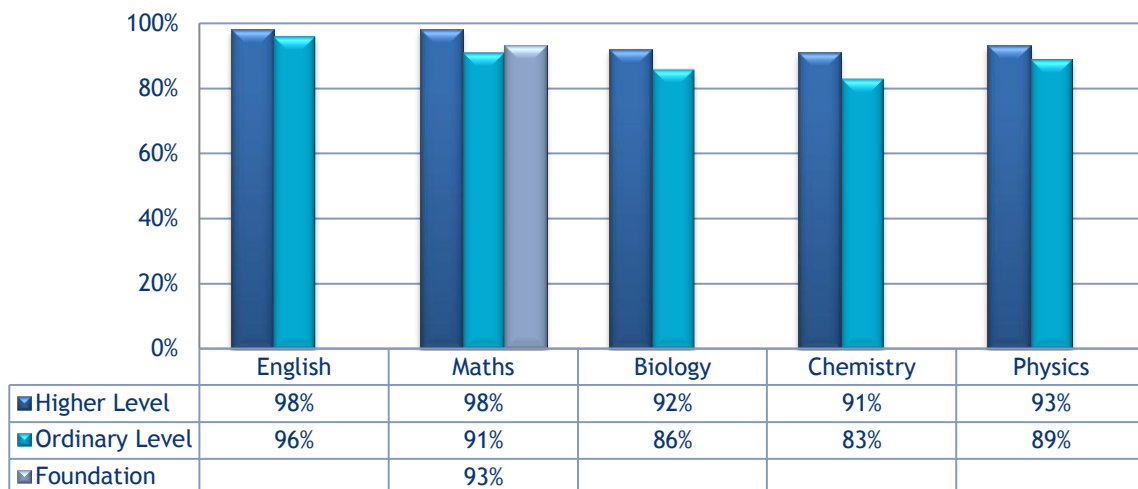




#### 4.4.5 Leaving Cert Achievement by Subject and Level

- Candidates' achievements in terms of the share of D grades or higher for mathematics, English and core science subjects are outlined in Figure 4.4:
  - most students achieved a minimum of a grade D in each of the subjects considered here, with at least four fifths obtaining a pass grade
  - higher level candidates were more likely than ordinary level candidates to obtain at least a grade D; the largest gap between higher and ordinary level achievements was in chemistry, with 91% of those sitting higher level obtaining at least a D grade compared to 83% for ordinary level
  - higher level English and mathematics had the highest pass rates with 98% of all students obtaining at least a grade D
- 93% of all candidates in foundation level mathematics obtained a pass grade; when all three levels for mathematics are combined, the average pass rate in 2012 was 92%, meaning that almost 46,600 out of 50,400 candidates obtained at least a D grade in mathematics.

Figure 4.4 Leaving Cert Achievements in Core Subjects by Level (% with grades  $\geq$  D), 2012



Source: State Examinations Commission

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

The numbers of males and females who sat the ten most popular subjects in the Leaving Certificate examination in 2012 are compared in Figure 4.5 (higher level) and Figure 4.6 (ordinary level). At higher level,

- females outnumber males in all subjects, except geography, mathematics and history
- the gender gap was largest for home economics, biology and languages with the number of females exceeding that of males by between 3,000 (English) and 7,100 (home economics)
- the gap for some subjects was comparatively small (e.g. business (124 more females than males) and mathematics (813 more males than females)).

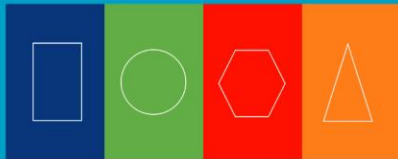
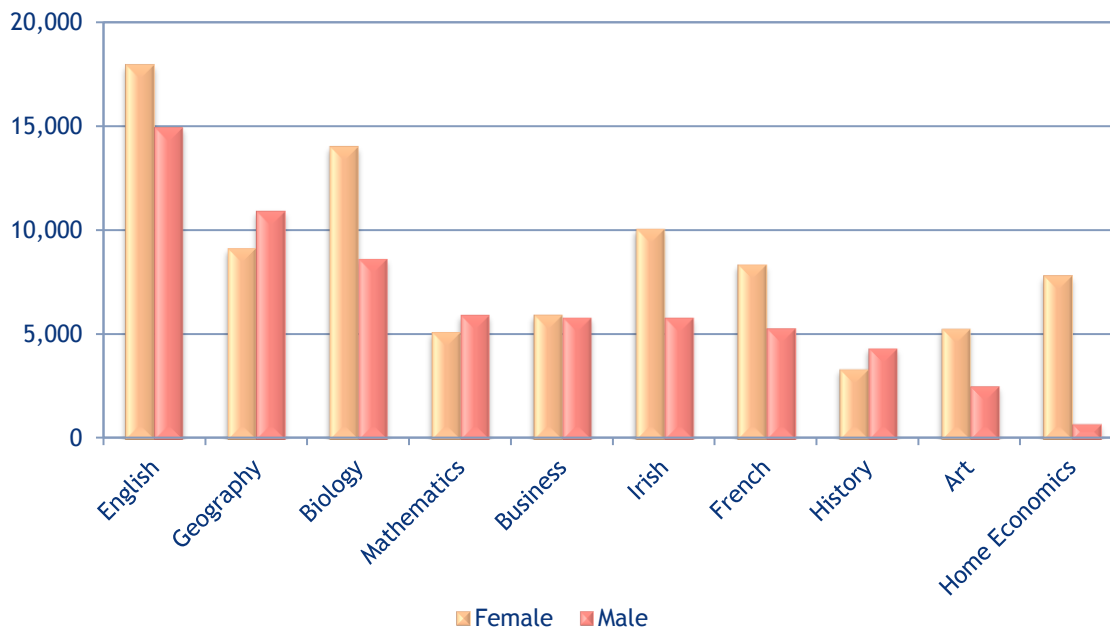


Figure 4.5 Top Ten Leaving Cert Subject Choice by Gender (Higher Level), 2012



Source: State Examinations Commission

At ordinary level,

- as with higher level, females dominate in home economics and biology (with a gender gap of between 1,000 and 2,000) and, to a lesser extent, French (approximately 400 more females than males)
- unlike the pattern at higher level, however, males dominate in ordinary level Irish and English, as well as history (each with a gender gap of between 1,100 and 3,300)
- while males also outnumber females in business, geography and art, the difference is small (less than 300 each).

At foundation level (not in graph), there were slightly more male candidates than females in both mathematics and Irish: of the 5,395 mathematics sits at this level, 2,915 (54%) were male, 2,480 were female; similarly of the 4,153 sits in foundation level Irish, 2,791 (67%) were male, 1,362 were female.

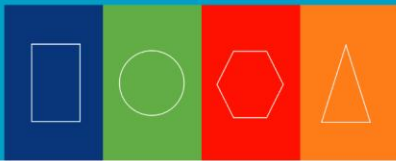
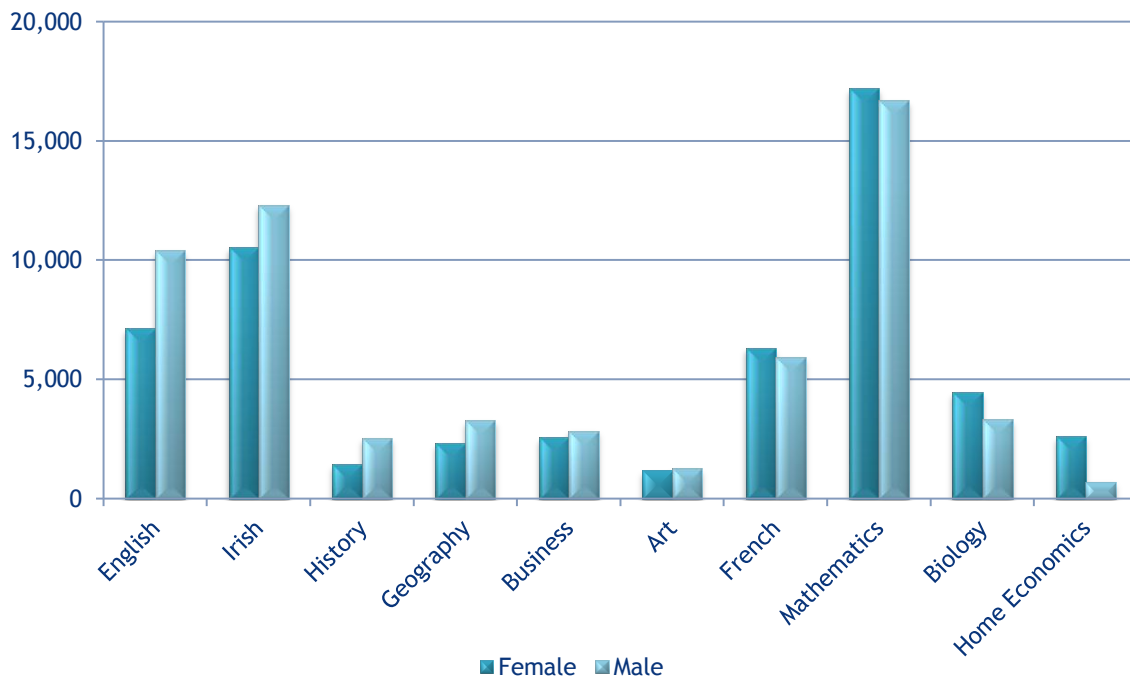


Figure 4.6 Top Ten Leaving Cert Subject Choice by Gender (Ordinary Level), 2012



Source: State Examinations Commission

Figures 4.7 (higher level) and 4.8 (ordinary level) compare the shares of females and males who obtained a D grade or higher in the top ten Leaving Certificate subjects in 2012.

- Overall, female candidates were more likely than their male counterparts to achieve at least a D grade in each of the top ten subjects, regardless of level
- In general, the gender gap in achievement was narrowest at higher level, where it was approximately one percentage point for most subjects except home economics (five percentage-point gap) and history and art (two percentage-point gap each)
- At ordinary level, the gender gap was between two and three percentage points for most subjects; the exceptions were for home economics (where 93% of females achieved at least a D grade, compared to 84% of males) and geography and history (with one percentage point gaps each).

At foundation level (not illustrated), 94% of females and 92% of males, gained at least a grade D in mathematics; for Irish, the pass rates were 96% of females and 95% of males in 2012.

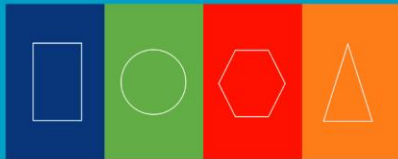
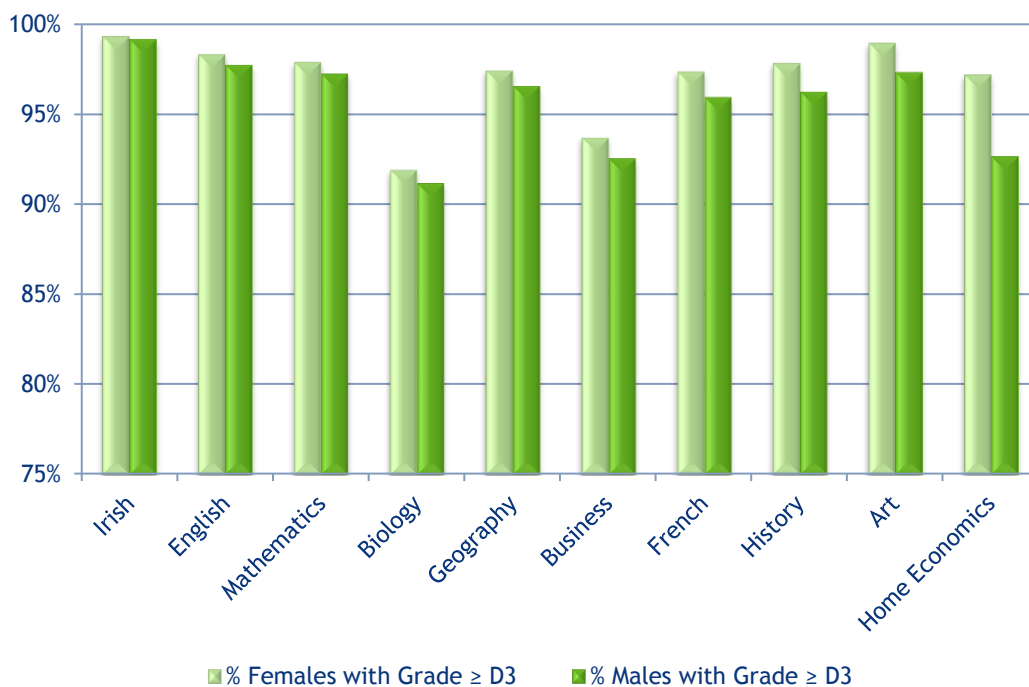
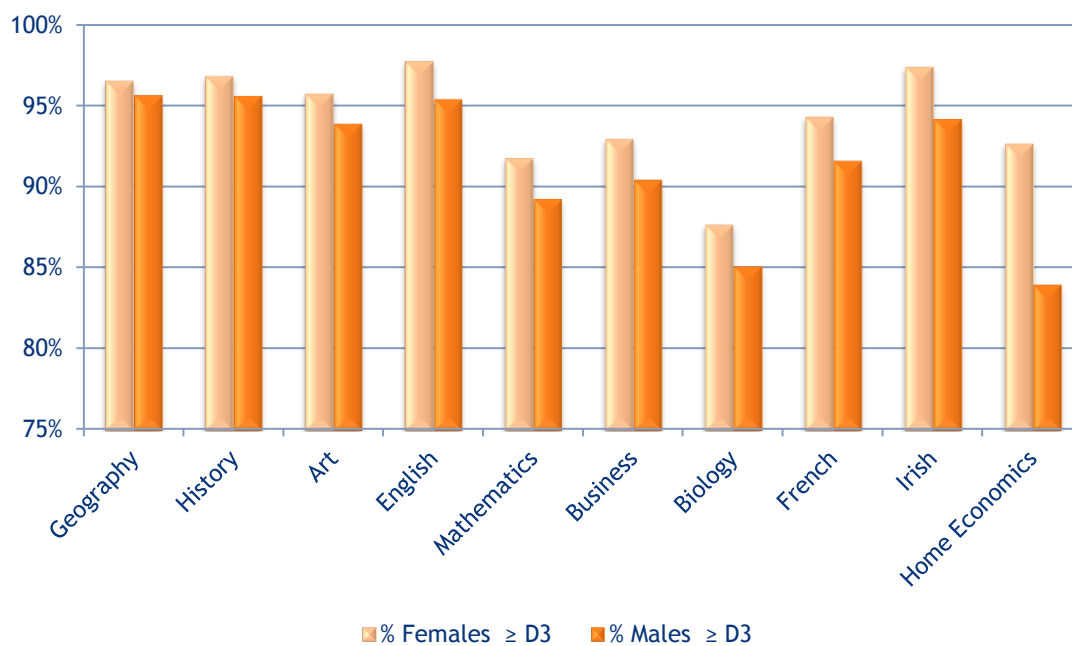


Figure 4.7 Gender Breakdown of Achievement ( $\geq$  D3) at Higher Level, 2012

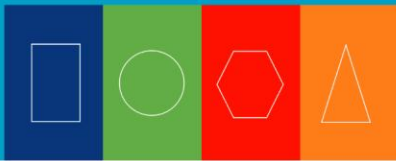


Source: State Examinations Commission

Figure 4.8 Gender Breakdown of Achievement ( $\geq$  D3) at Ordinary Level, 2012



Source: State Examinations Commission



## 4.5 Leaving Certificate Applied Results

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

- English and communication
- two vocational specialisms (e.g. agriculture/horticulture, engineering, childcare/community care, technology, hair and beauty, etc.)
- mathematical applications
- languages (Irish and a modern European language)
- social education.

The Leaving Certificate Applied is awarded at three levels:

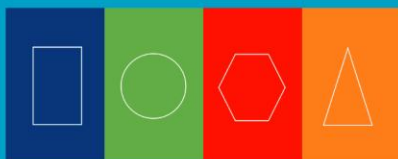
Pass	60-69%	120-139 Credits
Merit	70-84%	140-169 Credits
Distinction	85-100%	170-200 Credits

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

Holders of the Leaving Certificate Applied award are eligible to enter a range of Post-Leaving Certificate (PLC) courses, apprenticeships or courses offered by Fáilte Ireland, many of which will lead to a QQI-FETAC level 5 award and in some cases a QQI-FETAC level 6 award. While Leaving Certificate Applied award holders cannot proceed directly through the Central Applications Office (CAO) system to the universities or institutes of technology, those who hold a QQI-FETAC level 5 or 6 award may subsequently apply for some third-level courses in higher education institutions (including universities, institutes of technology and private, independent colleges)<sup>28</sup>.

- More than 3,200 students sat the Leaving Certificate Applied programme in 2012, representing approximately 6% of all Leaving Certificate students that year (Figure 4.9)
- Of these, 21% received a distinction, over 51%, a merit, approximately 14% a pass, and the remaining 14%, a record of credit
- Compared to the distribution of results in 2008, the share of students obtaining a distinction increased, up four percentage points from 17%; the shares awarded a merit or a pass declined

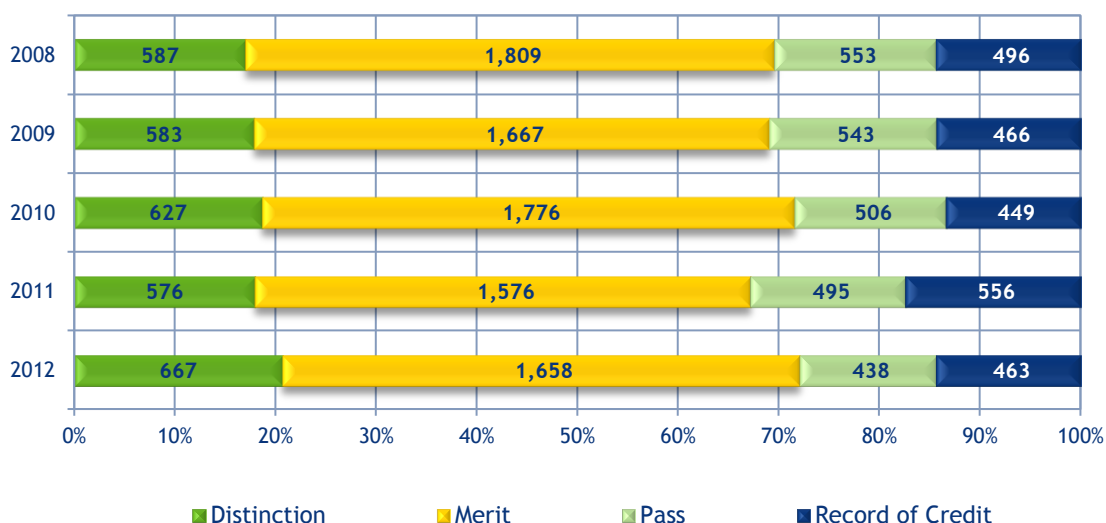
<sup>28</sup> There are approximately 40 higher education institutions nationwide that make a number of places available to holders of FETAC major awards on undergraduate higher education programmes spanning levels 6-8 on the NFQ.



by two percentage points each, down from 53% and 16% respectively, while there was a slight increase in the share awarded a record of credit (up to 14% from 13% in 2008)

- The actual numbers declined for each result type except distinction, which increased.

Figure 4.9 Leaving Certificate Applied Results, 2007-2012



Source: State Examinations Commission

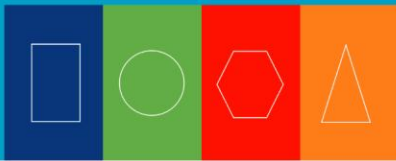
#### 4.6 Overall Leaving Certificate Performance (LCE & LCVP Only)

The focus of this section is on the performance of Leaving Certificate students in terms of the number of CAO points achieved as prior education attainment (i.e. overall performance in the Leaving Certificate examination) is a strong indicator of progression to year two and beyond at third level (HEA: 2010)<sup>29</sup>. 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).

Students wishing to apply for an undergraduate course of study (i.e. NFQ 6-8) in Ireland do so through the Central Applications Office (CAO), which processes applications on behalf of participating higher education institutions. Places are subsequently offered on the basis of points calculated from a candidate’s Leaving Certificate performance<sup>30</sup>.

<sup>29</sup> HEA (2010) *A Study of Progression in Higher Education*

<sup>30</sup> Not all course applicants do so through the CAO (e.g. some international students); in addition, not all course applicants are offered a place on the basis of Leaving Certificate performance (e.g. mature students, those disadvantaged backgrounds), although their applications may still be processed through the CAO, but not via a points system.



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 outlined in Table 4.7 below. In addition, most higher education institutions have, since 2012, awarded an extra 25 points for higher level mathematics (e.g. a candidate with a D1 in higher level mathematics will be awarded a total of 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 4.7 CAO Points (Leaving Certificate Grades (All Subjects) and Higher Level Mathematics)

	A1	A2	B1	B2	B3	C1	C2	C3	D1	D2	D3	<E
Level	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 Mathematics	125	115	110	105	100	95	90	85	80	75	70	0
Higher	100	90	85	80	75	70	65	60	55	50	45	0
Ordinary	60	50	45	40	35	30	25	20	15	10	5	0
Foundation Mathematics*	20	15	10	5	0	0	0	0	0	0	0	0

Source: CAO

\*Not all institutions award points for this level.

The points achievements for CAO applicants in 2011 and 2012 are presented in Figure 4.10. 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 2011 and 2012. 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.

- At 58% in 2012 and 57% in 2011, the greater share of students achieved at least 300 CAO points (equivalent to at least a D2 grade in six higher level papers) each year
- top achievers, scoring between 500 and 600 CAO points (i.e. at least 6 B1 grades), made up approximately 10% of the total in 2012, up from 9% the previous year
- The share of students attaining 400 points or more (equivalent to six C2 grades) increased from 31% to 33% between 2011 and 2012
- The share of students with fewer than 100 points (exaggerated on the scale by the results of external candidates who may opt to sit just one subject) declined slightly by one percentage point to reach 10% of the total in 2012.

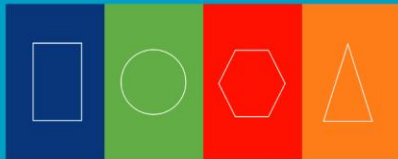
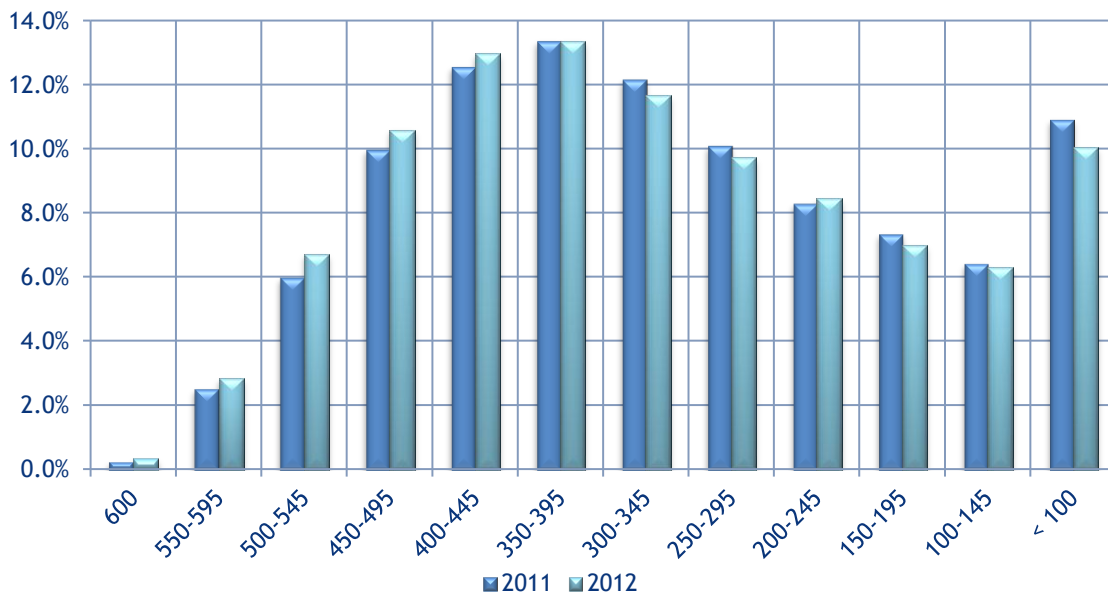
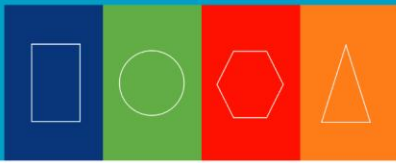


Figure 4.10 CAO Points Achievements for Leaving Certificate Applicants in 2011 and 2012



Source: CAO





## Chapter 5 Further Education and Training

### Key Points

- There were 170,000 award holders in 2012, representing a 6% decrease (or 10,600 fewer learners) when compared to 2011, but a 30% increase compared to 2008
- There were almost 299,000 QQI-FETAC awards made in 2012, an 11% decline on 2011 (amounting to 35,600 fewer awards)
- The sharpest decline was at level 3 where, at 27,000 awards in 2012, the number amounted to less than half that observed in 2011
- Of the 299,000 QQI-FETAC awards in 2012, more than half (59%) were made at level 5
- At almost 65,300, services had the highest number of awards in 2012, followed by education and health at almost 63,000 awards and business and administration awards at almost 53,700
- In 2012, almost a third (31%) of QQI-FETAC awards were made to learners aged between 20-29 years; QQI-FETAC awards were less likely to be made to learners aged 19 years and under than in previous years: between 2011 and 2012, their share fell by seven percentage points to 10%
- Despite the overall decline in the total number of QQI-FETAC awards, the number of **major awards** and **major award holders** grew by 13% (4,700 additional awards or learners) to reach 42,600 in 2012, their highest level to date
- For major awards, when compared to 2011, there was a shift away from awards in core skills, language and general learning (-27%, or 1,416 fewer awards) towards education and health (+5,033, or 42%); there was also a further decline in the number of construction related awards.

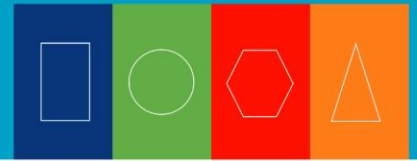
### 5.1 Introduction

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 QQI-FETAC awards<sup>31</sup>. There are over 900 registered providers offering programmes that lead to QQI-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.

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<sup>31</sup> The awarding body responsible for making awards in the FET sector in Ireland is Quality and Qualifications Ireland (QQI). Prior to the establishment of QQI in 2012 this responsibility was held by FETAC (Further Education and Training Awards Council).



While QQI 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 QQI-FETAC award is considered in this chapter.

This chapter examines QQI-FETAC awards data, looking first at the overall awards (all types) by variables such as candidate and award numbers, recipient age and gender, field of learning, and training centre type (section 5.2). An analysis of individual award type then follows: sections 5.3, 5.4, 5.5 and 5.6 focus on major, minor, specific purpose and supplemental awards respectively.

## 5.2 Overview of Awards Data

### 5.2.1 Award Holders (Learners)

Table 5.1 shows the number of QQI-FETAC awards and award holders for 2008, 2011 and 2012 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.

- There were 170,000 award holders in 2012, representing a 6% decrease (or 10,600 fewer learners) when compared to 2011 but a 30% increase compared to 2008
- The most notable changes over the period 2011-2012 were as follows:
  - there were increases in the number of major awards and specific purpose awards holders, but declines in the number of minor award holders and supplemental award holders
  - the number of major award holders grew by 13% (4,700 additional learners) to reach 42,600 in 2012, their highest level to date
  - the number of specific purpose award holders also grew strongly (+40%), with in excess of an additional 4,300 learners when compared to the previous year
  - with almost 18,000 fewer award holders, the decline was greatest in absolute terms for minor awards, which fell from almost 141,000 to almost 123,000 (-13%)
- When compared to 2008, the number of major award holders increased by almost three quarters; the number of minor award holders by a third. In contrast, there was a 12% decline in the number of special purpose awards. The number of supplemental award holders remained almost unchanged.

## 5.2.2 Awards

- There were almost 299,000 QQI-FETAC awards made in 2012 (Table 5.1)
- Despite a 13% rise in the number of major awards and a 40% increase in the number of specific purpose awards, the overall number declined by 11% (or almost 36,000 fewer awards) between 2011 and 2012; the greatest decline was for minor awards (almost 45,000 fewer awards) at -16%
- In contrast, when compared to 2008, the number of QQI-FETAC awards grew by more than a third; the number of awards increased for all award types, except specific purpose awards (which declined by 12%).

Table 5.1 QQI-FETAC Awards by Type and Candidate, 2008, 2011 & 2012

Year	2008		2011		2012	
	Awards	Award Holders	Awards	Award Holders	Awards	Award Holders
Certificates (Major)	24,429	24,429	37,857	37,857	42,593	42,593
Component (Minor)	177,228	93,910	284,597	140,870	240,094	122,876
Specific (Special) Purpose	17,176	17,176	10,785	10,785	15,134	15,134
Supplemental	717	717	946	946	730	730
Total	219,550	131,089*	334,185	180,690*	298,551	170,136*

Source: QQI

\*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 number of awards by NFQ level.

- In any given year, level 5 had the highest number of awards, accounting for almost 176,000 of the total (or 59%) in 2012
- Between 2011 and 2012, the overall number of awards declined by 11% (or by almost 36,000)
  - the sharpest decline was in the number of level 3 awards, where the 27,000 awards made in 2012 amounted to less than half the level observed in 2011 (71,000)
  - in contrast, with a rise of almost a fifth (or 6,000 additional awards), the greatest increase was at level 6
  - the 40% growth in level 2 awards was strongest in relative terms, although the numbers involved are small (just over 4,000 in 2012)
  - the growth in the number of awards at levels 1, 2, 4 and 6 was not sufficient to offset the declines that occurred at level 5 and especially level 3
- Over the period 2008-2012, there were increases in the number of awards at all levels, except level 3, where numbers declined by more than a third (-17,000 awards).

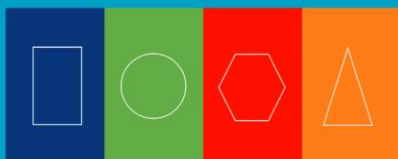


Table 5.2 QQI-FETAC Awards by NFQ Level, 2008, 2011 and 2012

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Total
2008	99	502	43,834	43,247	108,324	23,544	219,550
2011	927	2,960	70,557	46,073	178,842	34,826	334,185
2012	948	4,130	26,898	49,990	175,735	40,850	298,551

Source: QQI

### 5.2.4 Awards by Field of Learning

From 2010 onwards, the QQI-FETAC awards data detailed in the Monitoring Ireland's Skills Supply reports is based on the QQI-FETAC field of learning categories rather than ISCED (International Standard Classification of Education) field of learning categories<sup>32</sup>. This contrasts with the data in Table 1 in the Executive Summary of this report which, for comparison purposes, is based on ISCED field of learning; the data presented in the aforementioned table is not comparable to the field of learning data in this chapter.

Figure 5.1 shows the distribution of QQI-FETAC awards by field of learning for 2012.

- At almost 65,300, services (e.g. health and safety, security) had the highest number of awards in 2012, followed by education and health at almost 63,000 awards and business and administration awards at almost 53,700; combined, these three fields of learning accounted for more than 60% of all QQI-FETAC awards made
- Between 2011 and 2012, there were declines in the number of awards across most fields of learning (except education and health and business and administration); the strongest decline was for awards in general studies which fell by 42%, amounting to almost 35,000 fewer awards
- When compared to 2008, the largest increases were observed in the education and health field and the services field.

<sup>32</sup> QQI-FETAC field of learning categories are provided in Appendix A.

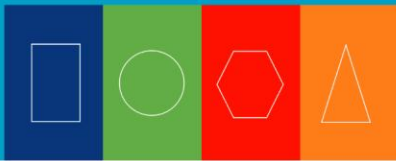
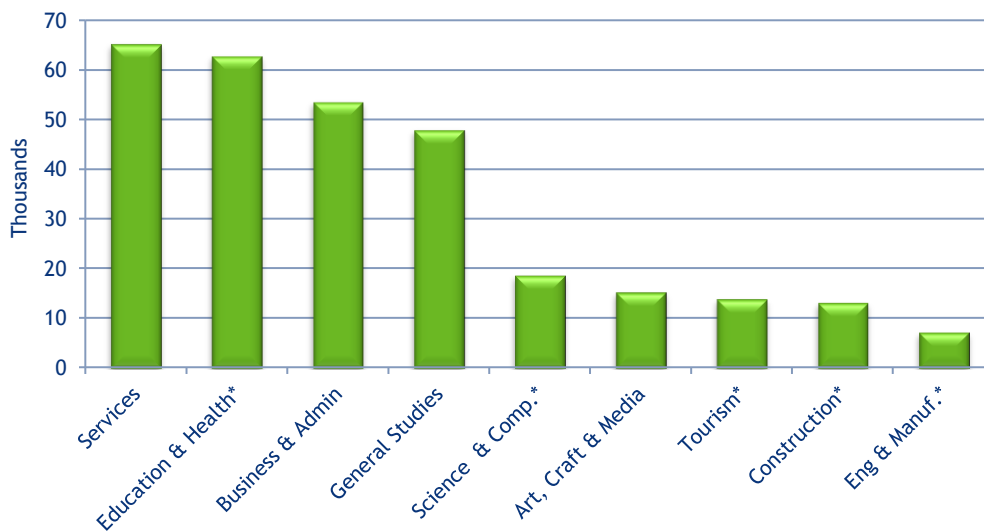


Figure 5.1 QQI-FETAC Awards by Field of Learning, 2012



Source: QQI

\* For ease of reading, some fields of learning have been shortened as follows: Construction = Construction & Built Environment; Tourism = Tourism, Hospitality & Sport; Science & Comp. = Agriculture, Science & Computing; Eng & Manuf = Engineering & Manufacturing; Education & Health = Education, Health and Welfare; General studies = Core Skills, Language & General Studies

### 5.2.5 Awards by Recipient Gender

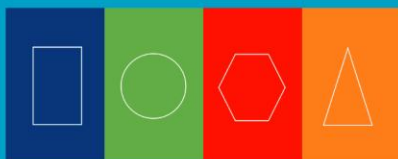
The distribution of awards made to males and females is shown in Table 5.3.

- In 2012, more than one half of all QQI-FETAC awards were made to female recipients; this, however, masks differences in the gender distribution of awards at NFQ levels:
  - a majority (58-59%) of level 5 and 6 awards were made to females; more awards were also made to females at levels 2 and 3, although the gender gap was somewhat narrower
  - in contrast, the majority (62%) of level 4 awards were made to males
  - the share of level 1 awards made to males and females was almost gender balanced
- When compared to previous years, the overall share of awards made to males and females changed little in 2012 except at levels 1 and 2 (where the numbers involved were comparatively small) and level 6; at level 6, awards were made mostly to male learners in 2008, but mostly to females in 2012.

Table 5.3 QQI-FETAC Awards by Gender and NFQ Level, 2008, 2011 and 2012

	Level 1		Level 2		Level 3		Level 4		Level 5		Level 6		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
2008	65%	35%	65%	35%	40%	60%	56%	44%	37%	63%	67%	33%	45%	55%
2011	51%	49%	49%	51%	52%	48%	61%	39%	41%	59%	47%	53%	47%	53%
2012	50%	50%	47%	53%	49%	51%	62%	38%	42%	58%	41%	59%	46%	54%

Source: QQI



## 5.2.6 Awards by Recipient Age

Table 5.4 shows the distribution of awards by recipient age.

- In 2012, almost a third (31%) of QQI-FETAC awards were made to learners aged between 20-29 years
- QQI-FETAC awards were less likely to be made to learners aged 19 years and under than in previous years: between 2011 and 2012, their share fell by seven percentage points to 10%
- In contrast, the share of awards made to learners in all other age cohorts either remained the same or increased by one-three percentage points

Table 5.4 QQI-FETAC Awards by Recipient Age, 2008, 2011 and 2012

	≤19	20-24	25-29	30-39	40-49	50-59	60+	Total
2008	18%	17%	14%	21%	17%	10%	3%	100%
2011	17%	15%	12%	23%	18%	11%	3%	100%
2012	10%	19%	12%	23%	20%	12%	4%	100%

Source: QQI

Note: Excludes awards for which recipient age was unavailable

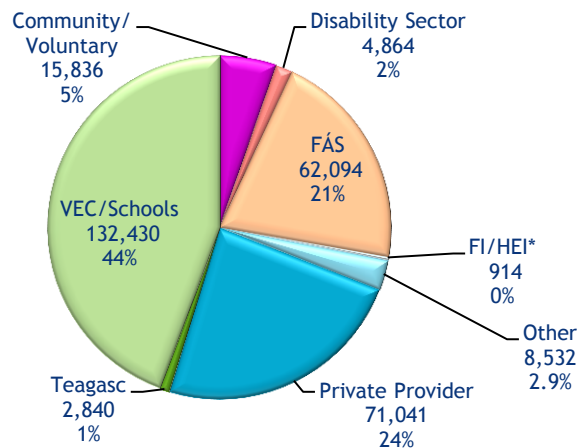
## 5.2.7 Provider Centre Type

The distribution of QQI-FETAC awards by centre type is shown in Figure 5.2. In this report, the data in respect of centre type 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, thereby underestimating the provision of some training centre types<sup>33</sup> and overestimating that of others.

- Of the 299,000 awards made in 2012, 44% were made to learners at VEC/schools; almost a quarter were made to learners at private provider centres, and a further fifth to learners at FÁS centres
- This distribution is broadly similar to 2011, although there were declines in the absolute number of awards made to learners across most centre types, with the exception of the 'other' and 'Teagasc' centre type categories where the numbers increased by approximately 200 each.

<sup>33</sup> 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.

Figure 5.2 QQI-FETAC Awards by Centre Type, 2012



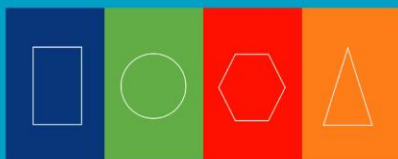
Source: QQI

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

### 5.3 Major Awards

In 2012, there were 42,600 major award holders, with learners obtaining one major award each. Table 5.5 shows the distribution of major awards in 2012 by level and field of learning.

- **Award Level:** of the 42,600 major awards made in 2012,
  - almost two thirds were made at level 5, accounting for almost 26,700 awards (Table 5.5)
  - more than a quarter were made at level 6 (a further 11,600 awards)
  - combined, level 5 and level 6 made up 90% of all major awards; most of the remaining awards were made at levels 3 and 4, with awards at levels 1 and 2 combined making up just 3% of the total.
- When compared to 2011, the distribution of awards by level was largely similar, with the exception of an increased share (and number) of awards at level 4 (up from a 3% share in 2011 to a 5% share in 2012) and a fall in the share of level 3 awards (down from a 9% share in 2011 to a 3% share in 2012); in absolute terms, the largest increases were at level 5 (+3,180, or 14%) followed by level 6 (+2,660, or 30%)
- **Awards by Field of Learning:** in 2012,
  - education and health had the largest number of awards; with over 17,000, this field alone accounted for 40% of all major awards; most awards made in this field of learning were at level 5, predominantly for courses in childcare/healthcare support etc.
  - business and administration had the second highest number of awards, at over 7,000, mostly at level 5
- When compared to 2011, there was a shift away from awards in general studies (-27%, or 1,416 fewer awards) towards education and health (+5,033, or 42%); there was also a further decline in the number of construction related awards (-22%, or 451 fewer awards)



- There were also gains in the number of awards in all remaining fields, including science and computing (+22%, or 771 additional awards) and services (+ 36%, or 283 awards), although the numbers involved are comparatively smaller
- **Age & Gender:** in 2012,
  - 63% of all major awards were made to females, with females dominating in particular at level 5 (where 70% of all major awards went to females)
  - more than two fifths of major awards were made to learners aged less than 25 years; a further 15% were made to those aged between 25-29 years.

Table 5.5 Major Awards by NFQ Level and Field of Learning, 2012

Major Awards	NFQ 1	NFQ 2	NFQ 3	NFQ 4	NFQ 5	NFQ 6	Total
Science & Computing	-	-	-	153	2,463	1,595	4,211
Art, Craft & Media	-	-	-	13	2,644	538	3,195
Business & Admin	-	-	250	278	5,471	1,040	7,039
Construction *	-	-	-	23	175	1,406	1,604
General Studies	314	666	827	1,680	438	-	3,925
Education & Health	-	-	-	15	12,581	4,459	17,055
Eng. & Manuf.*	-	-	3	13	401	2,047	2,464
Services	-	-	-	14	883	178	1,075
Tourism*	-	-	-	57	1,610	358	2,025
<b>Total</b>	<b>314</b>	<b>666</b>	<b>1,080</b>	<b>2,246</b>	<b>26,666</b>	<b>11,621</b>	<b>42,593</b>

Source: QQI

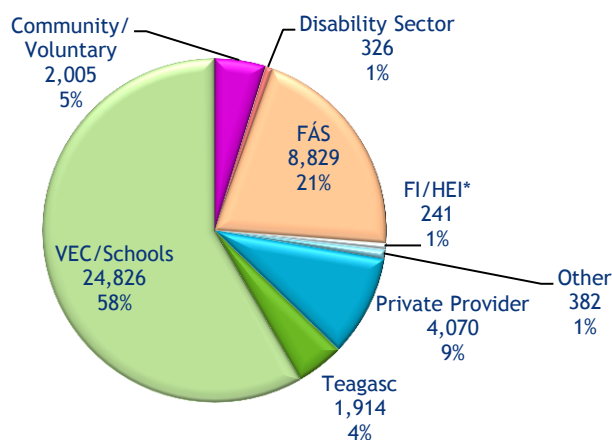
\* For ease of reading, some fields of learning have been shortened as follows: Construction = Construction & Built Environment; Tourism = Tourism, Hospitality & Sport; Science & Comp. = Agriculture, Science & Computing; Eng & Manuf = Engineering & Manufacturing; Education & Health = Education, Health and Welfare; General studies = Core Skills, Language & General Studies

The distribution of QQI-FETAC major awards by provider centre type in 2012 is shown in Figure 5.3.

- Of the almost 43,000 major awards made in 2012, over half were made to learners at VEC/schools, over a fifth were made to learners at FÁS centres, and a further 9% to learners at private provider centres
- This distribution is broadly similar to 2011, with the exception of a three percentage point gain in the share of awards made to learners at private provider centres (up from 6% in 2011); changes for all other centre types were of the order of one percentage point.



Figure 5.3 QQI-FETAC Major Awards by Centre Type, 2012



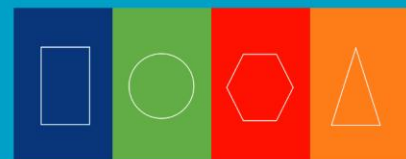
Source: QQI

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

## 5.4 Minor Awards

In 2012, there were 122,876 minor award holders, with learners receiving on average two minor awards each. Table 5.6 shows the distribution of minor awards in 2012 by level and field of learning.

- **Award level:** of the 240,000 minor awards in 2012,
  - more than one half were at level 5, amounting to almost 138,000 awards
  - level 4 awards made up a further fifth (47,400 awards), followed by level 3 (25,800 awards) and level 6 (25,200 awards) with an 11% share and 10% share respectively
  - combined, awards at levels 1 and 2 made up the remaining 2% share
- Between 2011 and 2012, there was a shift away from awards at the lower end of the NFQ: the share of awards at level 3 more than halved (down from a 24% share to 11%, with 41,300 fewer awards), while the shares at levels 4, 5 and 6 grew (by four, six and three percentage points respectively)
- **Field of learning:** 80% of minor awards were in one of four fields of learning - services, business and administration, general studies, and education and health
  - at 58,600, **services had the highest number of awards**, accounting for almost a quarter of all minor awards; awards were mostly at level 5, typically for occupational first aid, followed by level 4, mostly in security-related areas (e.g. guarding skills, door security procedures)
  - the **second largest number of awards was in the business and administration** field which, at almost 46,500 awards, made up approximately one fifth of the total for this award type; almost a half were at level 5 (mostly for awards in computerised and manual accounts/payroll, information processing, etc.), and almost a further quarter were at level 4 (e.g. IT skills, computer applications)



- there were **over 44,100 awards in general studies**, representing 18% of the total; awards in this field were mostly for communications, work experience, English as a second language, and personal effectiveness
  - there were **almost 43,500 awards in the education and health** field of learning; two thirds were made at level 5 (e.g. care of the older person, caring for children etc.) and most of the remainder was at level 6 (e.g. train the trainer, child development, social and legal issues in childcare)
- When compared to 2011, there were declines across almost all fields of learning
  - with approximately 33,300 fewer awards, the largest decline was for awards in general studies which alone accounted for almost three quarters of the overall decline in the number of minor awards that occurred between 2011 and 2012; most of the decline occurred at level 3 particularly for computer literacy and information and communications technology awards
  - the second largest decline in terms of numbers was in art, craft and media (-6,100 fewer awards)
  - in contrast, there was an increase in the number of awards in business and administration (which increased from almost 44,000 to over 46,000); the increases were at levels 3 and 5 only (typically in the areas of word processing, accounts, payroll, etc.)
- **Age & Gender:** in 2012,
  - 28% of minor awards were made to learners aged less than 25 years; more than a half were made to learners aged between 30 and 59 years
  - just over one half of all minor awards were made to females; this, however, masks differences across levels: at levels 5 and 6, in excess of 60% of awards were made to females, compared to 37% at level 4.

Table 5.6 Minor Awards by NFQ Level and Field of Learning, 2012

Minor Awards	NFQ 1	NFQ 2	NFQ 3	NFQ 4	NFQ 5	NFQ 6	Total
Science & Computing	20	18	3,861	2,555	6,625	1,234	14,313
Art, Craft & Media	82	106	2,005	2,316	6,583	1,070	12,162
Business & Admin			8,020	10,817	22,881	4,774	46,492
Construction *			54	1,537	3,340	218	5,149
General Studies	532	3,340	8,862	10,203	19,754	1,423	44,114
Education & Health			316	1,126	27,802	14,206	43,450
Eng. & Manuf.*			322	647	2,223	754	3,946
Services			1,201	15,524	41,075	809	58,609
Tourism*			1,177	2642	7,340	701	11,860
<b>Total</b>	<b>634</b>	<b>3,464</b>	<b>25,818</b>	<b>47,367</b>	<b>137,623</b>	<b>25,189</b>	<b>240,095</b>

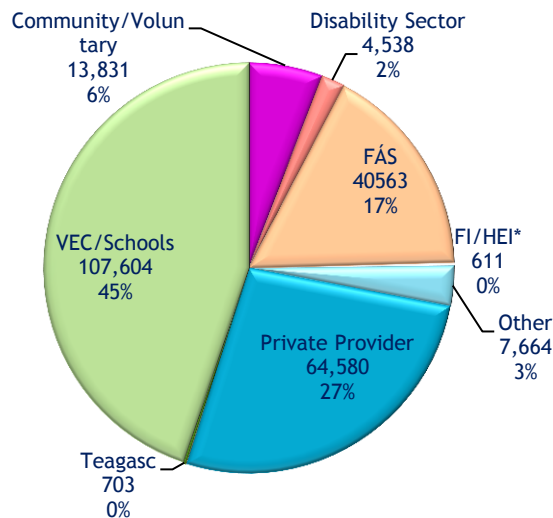
Source: QQI

\* For ease of reading, some fields of learning have been shortened as follows: Construction = Construction & Built Environment; Tourism = Tourism, Hospitality & Sport; Science & Comp. = Agriculture, Science & Computing; Eng & Manuf = Engineering & Manufacturing; Education & Health = Education, Health and Welfare; General studies = Core Skills, Language & General Studies

Figure 5.4 shows the distribution of minor awards by provider centre type.

- Almost one half (45%) of all minor awards were made to learners at VEC/school centres; more than a quarter were at private provider centres and a further 17% at FÁS centres
- When compared to 2011, there was little change in the distribution of awards by centre type.

Figure 5.4 QQI-FETAC Minor Awards by Centre Type, 2012



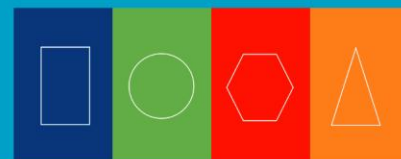
Source: QQI

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

## 5.5 Specific Purpose Awards

In 2012, there were 15,134 specific purpose award holders, with learners receiving one specific purpose award each. Table 5.7 shows the distribution of specific purpose awards by level and field of learning.

- **Award Level:** specific purpose awards were made at levels 4, 5 and 6 only; of the 15,134 awards made in 2012,
  - more than three quarters were made at level 5, accounting for approximately 11,400 awards
  - more than a fifth were made at level 6 (a further 3,300 awards)
  - combined, level 5 and level 6 made up 98% of all specific purpose awards, with level 4 awards making up 2% of the total
- The distribution of specific purpose awards by level was largely similar to that of 2011, with the exception of a slight shift away from level 6 (which declined from a 24% share to a 22% share between 2011 and 2012) towards level 5 (which grew from 73% of all specific purpose awards in 2011 to 76% in 2012)
- **Awards by Field of Learning:** in 2012,



- with more than 5,500 awards each, approximately three quarters of specific purpose awards were made in either construction or services<sup>34</sup>; most of these awards related to short courses in best practice training for private and public sector employees working in the construction industry (e.g. roads construction)
  - education and health had the third largest number of awards at 2,438, which were all made at level 6; more than one half of awards in this category were for manual handling instruction; other awards included those related to driving instruction for different types of vehicles
- Although the number of awards in each field of learning (except science and computing) grew between 2011 and 2012, the shares remained similar, with construction, services and education and health holding the largest shares; the number of awards in science and computing remained unchanged at just over 200
- **Age & Gender:** in 2012,
  - specific purpose award tend to be made to slightly older learners (compared to other award types); more than one half of specific purpose awards were made to learners aged between 30 and 49 years; younger learners (i.e. those aged less than 25 years) made up 8% of the total
  - more than 90% of specific purpose awards were made to male learners; males dominated at each of the three NFQ levels at which this award type was made.

Table 5.7 Specific Purpose Awards by NFQ Level and Field of Learning, 2012

Major Awards	NFQ 4	NFQ 5	NFQ 6	Total
Science & Computing	69	-	142	211
Business & Admin	26	60	52	138
Construction *	92	5,353	390	5,835
Education & Health	-	-	2,438	2,438
Eng. & Manuf.*	-	653	139	792
Services	155	5,380	72	5,607
Tourism*	35	-	78	113
<b>Total</b>	<b>377</b>	<b>11,446</b>	<b>3,311</b>	<b>15,134</b>

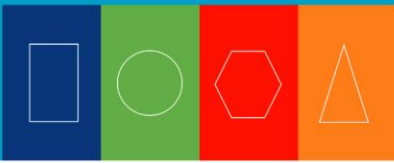
Source: QQI

\* For ease of reading, some fields of learning have been shortened as follows: Construction = Construction & Built Environment; Tourism = Tourism, Hospitality & Sport; Science & Comp. = Agriculture, Science & Computing; Eng & Manuf = Engineering & Manufacturing; Education & Health = Education, Health and Welfare; General studies = Core Skills, Language & General Studies

The distribution of QQI-FETAC specific purpose awards by provider centre type in 2012 is shown in Figure 5.5.

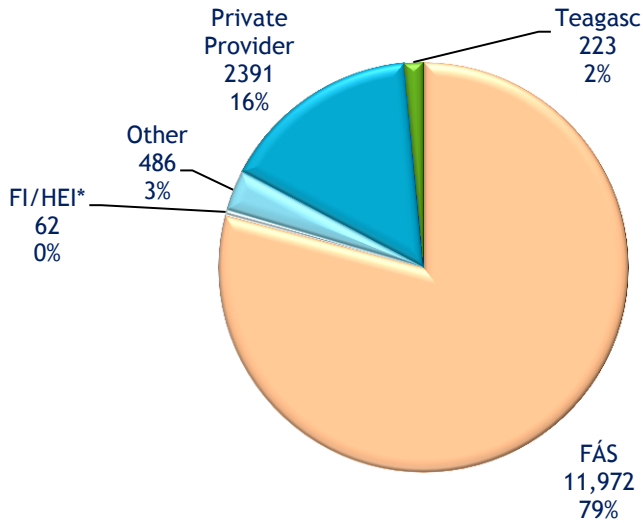
- Of the 15,100 specific purpose awards made in 2012, almost four fifths were made to learners at FÁS centres and a further 16% to learners at private provider centres

<sup>34</sup> Most of the specific purpose awards in the services field are made up of awards related to the construction field (e.g. excavator operations), but because they relate to driving skills, they were categorised in the services field of learning.



- When compared to 2011, there were gains of two and four percentage points respectively in the share of awards made to learners at FÁS and private provider centres; there were small declines in the shares and numbers of awards in other centre type categories.

Figure 5.5 QQI-FETAC Specific Purpose Awards by Centre Type, 2012



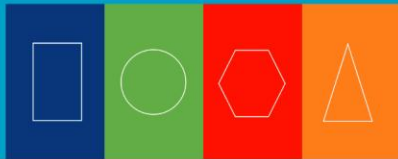
Source: QQI

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

## 5.6 Supplemental Awards

In 2012, there were 740 supplemental award holders, with learners receiving one supplemental award each. All supplemental awards were made at level 6, mostly for awards in domestic gas installation, installing domestic solar water systems and safety in gas installation. All supplemental awards were made to learners at FÁS centres; almost all were made to male learners, and over one half were aged less than 40 years.

When compared to 2011, there was a 30% decline in the number of supplemental awards made.



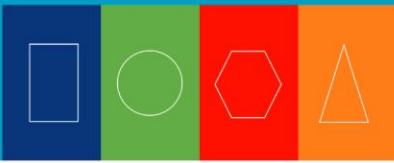
## Chapter 6 Higher Education (Undergraduate - Levels 6-8)

### Key Points

- CAO Acceptances: there were 46,300 CAO acceptances (NFQ 6-8) in 2012, a 1% increase on 2011; between 2011 and 2012, acceptances for level 6 courses declined by 5%, the number of acceptances at level 7 declined by 1% while level 8 acceptances increased by approximately 2%
- Graduate Output: there were 41,400 graduates at levels 6-8 in 2011, an increase of 3% on 2010; output increased across all levels, with a 10% increase at level 6 and increases of 3% and 2% at levels 7 and 8 respectively
- Outlook: output at level 8 is expected to continue to increase in the short to medium term, albeit at a slow pace while output at levels 6 and 7 will likely remain relatively unchanged; major fluctuations in overall output are not anticipated in the medium term although varying trends are emerging across disciplines
- Engineering: output has been increasing since 2009 and is likely to continue to do so in to the medium term due to increases in CAO acceptances and enrolments
- Construction: this is the first year that a decline in output has occurred as the impact of the downward trend in the construction sector takes a belated effect; it is expected that the downward trend is due to continue in the medium term due to the continued decline in CAO acceptances and enrolments
- Computing: output continues to show significant growth with a 25% increase between 2010 and 2011; strong growth in CAO acceptances and enrolments suggest a continuation of this trend in the medium term
- Science: graduate output in this subject has remained relatively unchanged in recent years; enrolment and CAO acceptance data suggests signs of growth in the short term albeit at a low level
- With graduation rates of 22% (higher certificate/ordinary bachelor degree level) and 47% (honours bachelor degree level), Ireland ranks well above the OECD and EU 21 averages in terms of graduate output at undergraduate level.

### 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). By examining CAO acceptance data and enrolment and graduation data, the aim of this section is to provide a comprehensive overview of the supply of skills emerging from undergraduate level higher education detailing those intending to enter (Section 6.2), those already in (Section 6.3), and students emerging from (Section 6.4) Irish higher education programmes spanning levels 6-8 on the NFQ. 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.

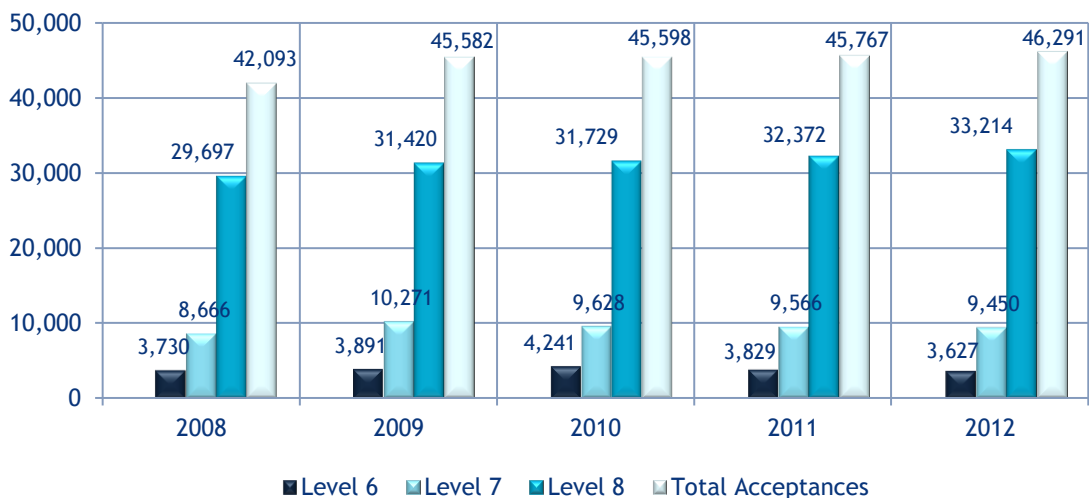
CAO course acceptances are not the same as student enrolments: some acceptors do not enrol and some seek deferment; CAO acceptance data refers only to full-time courses and does not include some mature, access or foreign students (who may enter through direct entry methods); in addition CAO acceptance data includes some students attending private independent colleges not included in the higher education data. Therefore, the numbers are likely to differ from 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

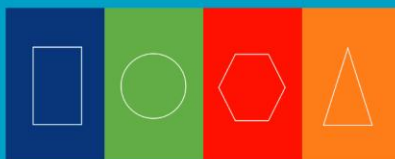
Figure 6.1 provides the total number of CAO acceptances by NFQ level for the five year period 2008-2012. While the number of acceptances rose significantly between 2008 and 2009, a levelling off has occurred in recent years with figures increasing by a modest 1% between 2011 and 2012.

- Level 6: while an increase at this level occurred in 2010, it has since declined by 14% reaching 3,627 in 2012
- Level 7: although CAO acceptances at this level increased by almost a fifth between 2008 and 2009 they have declined year-on-year since
- Level 8: acceptances at this level account for approximately 70% of total acceptances; a 3% increase occurred between 2010 and 2011.

Figure 6.1 CAO Total Acceptances by Level, 2008-2012



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 2008 to 2012. The continued decline in the number of CAO acceptances at level 7/6 since 2009 was reflected across all age categories; the number of acceptors aged 16-17 years has declined each year since 2009, and while there was an initial gain in the number of those aged 23 years and above between 2008 and 2010, their numbers have since decreased, falling by 6% between 2011 and 2012.

At level 8, the number of acceptors aged 16-17 years has remained relatively static over the period 2008 to 2012. Those in the 18-22 years age category have experienced steady increases in the same time period with a 21% increase since 2008 and a 4% increase on 2011; those aged 23 years and above have seen small declines in the number of acceptors in recent years.

Table 6.1 CAO Acceptances by Level and Age, 2008-2012

Age	Level 7/6					Level 8				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
16-17	5,351	5,523	4,904	4,555	4,522	13,847	13,930	13,339	13,342	13,660
18-22	5,521	6,118	6,095	6,220	6,071	12,841	13,791	14,150	14,976	15,559
23+	1,540	2,518	2,892	2,624	2,471	3,012	3,701	4,239	4,046	3,996
<b>Total</b>	<b>12,412</b>	<b>14,159</b>	<b>13,891</b>	<b>13,399</b>	<b>13,064</b>	<b>29,700</b>	<b>31,422</b>	<b>31,728</b>	<b>32,364</b>	<b>33,215</b>

Source: CAO Directors Reports

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

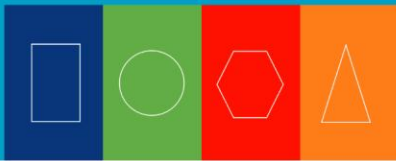
## 6.2.3 CAO Acceptances by Discipline

This section examines the distribution of CAO acceptances by discipline and NFQ level (as illustrated in Table 6.2).

Table 6.2 CAO Acceptances by Discipline, Level 6-8, 2012

	Level 6		Level 7		Level 8	
	Acceptances 2012	% Change 11-12	Acceptances 2012	% Change 11-12	Acceptances 2012	% Change 11-12
Engineering	522	-12%	1,420	0%	1,782	14%
Construction	106	10%	659	-4%	765	-2%
Computing	238	-2%	1,317	13%	2,282	10%
Science	305	-19%	789	5%	3,865	4%
<b>Total Technology</b>	<b>1,171</b>	<b>-11%</b>	<b>4,185</b>	<b>4%</b>	<b>8,694</b>	<b>7%</b>
Health & Welfare	131	17%	240	-13%	3,919	4%
Agriculture & Veterinary	38	-62%	435	2%	463	8%
<b>Total Health, Vet &amp; Agriculture</b>	<b>169</b>	<b>-20%</b>	<b>675</b>	<b>-4%</b>	<b>4,382</b>	<b>4%</b>





	Level 6		Level 7		Level 8	
	Acceptances 2012	% Change 11-12	Acceptances 2012	% Change 11-12	Acceptances 2012	% Change 11-12
Arts & Humanities	127	105%	692	-19%	9,991	-2%
Social Sciences, Business & Law	1,276	-6%	2,401	-1%	6,895	3%
Education	58	61%	125	13%	2,513	7%
Services	826	-3%	1,372	-6%	739	-1%
<b>Total Other</b>	<b>2,287</b>	<b>-1%</b>	<b>4,590</b>	<b>-5%</b>	<b>20,138</b>	<b>1%</b>
<b>TOTAL</b>	<b>3,627</b>	<b>-5%</b>	<b>9,450</b>	<b>-1%</b>	<b>33,214</b>	<b>3%</b>

Source: CAO

### Technology (Levels 6-8)

While further declines occurred at level 6, acceptances at levels 7 and 8 continued to rise (by 4% and 7% respectively) between 2011 and 2012. The main findings were:

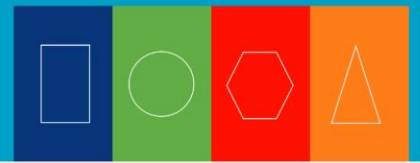
- **Engineering:** while level 6 acceptances continued to decline and level 7 numbers remained unchanged, acceptances for level 8 courses increased (by 14% in 2012)
- **Construction:** acceptances continued to decline for this subject at levels 7 and 8 in 2012; these declines are not expected to recover in the short-term (while level 6 acceptances increased, the numbers involved are small)
- **Computing:** level 8 acceptances have been increasing steadily in recent years, expanding by 10% in 2012; following declines in previous years, level 7 acceptances showed signs of recovery, while level 6 acceptances declined slightly
- **Science:** in line with previous years, level 6 acceptances continued to decline, while both level 7 and 8 acceptances showed some increases.

### Health, Veterinary & Agriculture: (Levels 6-8)

- **Health and Welfare:** level 8 acceptances account for the vast majority (91%) of healthcare course acceptances, primarily in nursing; the 4% increase that occurred between 2011 and 2012 was primarily related to an increase in acceptances for sports related therapy courses
- **Agriculture & Veterinary:** while level 8 acceptances increased by 8%, this is a reversal of the declines experienced in the previous year.

### Other Disciplines: (Levels 6-8)

- **Arts & Humanities:** acceptances in this discipline were predominantly at level 8; despite a 2% decline, this subject still accounted for 30% of all level 8 acceptances in 2012
- **Social Science, Business & Law:** level 6 and 7 acceptances for this subject continued to decline, while acceptances at level 8 increased slightly (by 3%)
- **Services** (e.g. catering, tourism, sports): declines occurred across all levels in 2012.



### 6.2.4 CAO Applicant Data 2013

CAO applicant statistics from February 1st 2013 give early indications of trends emerging for those potentially entering the higher education system in September 2013, 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 2013 include:

- Overall: the number of applicants to the CAO declined by 1% between 2012 and 2013 to 71,151; level 8 1st preference applications declined by 2%, while level 7/6 1st preference applications declined by 7%
- Technology: the number of 1st preference applications for level 8 technology courses increased between 2012 and 2013; while computing levels remained unchanged, engineering and science applications saw some gains; at level 7/6, declines occurred across all subjects
- Health, Veterinary & Agriculture: the overall number of 1st preference applications for level 8 health and welfare courses remained unchanged between 2012 and 2013; this masks a decline in the number of 1st preference applicants to medicine and an increase in applicants for other healthcare courses; level 7/6 agriculture applicant numbers declined slightly
- Other Disciplines: level 8 education courses have experienced a decline in the number of 1st preference applications of 9% each year for the last two years; declines also occurred in social sciences, business and law and arts/humanities across all levels
- Student Statistics: the number of mature students applying for higher education courses through the CAO system peaked in 2010 and has been in decline since, although the difference in numbers between 2012 and 2013 was negligible.

### 6.3 Undergraduate Enrolments

While enrolment data lags behind that of CAO acceptance data (by one academic year), 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. The enrolment data examined in this section also indicates the total number of persons studying at higher level each 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 2007-2011. In 2011, there were 155,600 undergraduate students enrolled in Irish higher education, an increase of 14% on 2007 and 1% on 2010. These increases did not occur evenly across the three NFQ levels:

- **Level 6:** the number of enrolments at this level dropped significantly between 2007 and 2008 and have remained at the lower levels since, with a 6% decline between 2010 and 2011
- **Level 7:** enrolments at this level have remained relatively static since 2007
- **Level 8:** at 23%, level 8 accounted for the increase in enrolments over the period 2007 to 2011 although this has slowed in recent years, with just a 2% increase between 2010 and 2011.

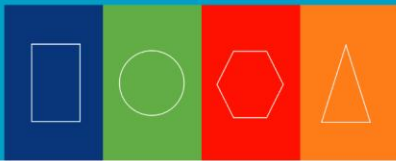
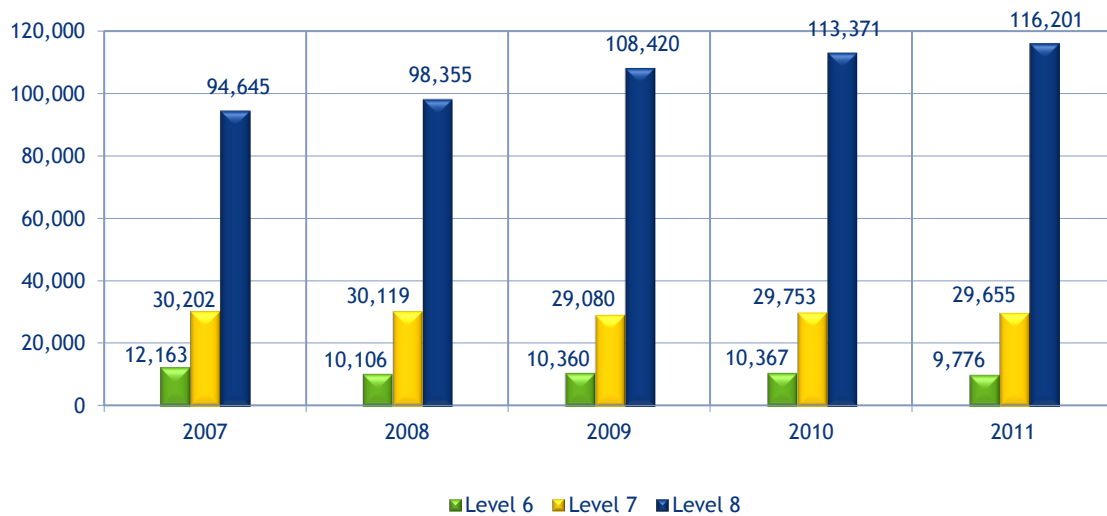


Figure 6.2 Total Enrolments by Level (6-8), 2007-2011



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

- **Level 6:** over half (55%) of those enrolled in level 6 courses were full-time; the significant drop in full-time enrolments (-12%) between 2010 and 2011 was offset by increases in those enrolling on flexible learning courses (Table 6.3)
- **Level 7:** almost 80% of those enrolled in level 7 courses were full-time; while there was no overall change in enrolment numbers, there was a small decline in full-time enrolments and an increase of 3% for both part-time and flexible learning courses
- **Level 8:** almost all students at this level studied full-time (95%); despite a 3% rise in full-time enrolments, there was a significant decline in the numbers participating in flexible learning.

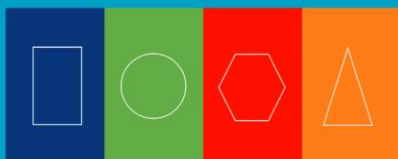


Table 6.3 Enrolments by Mode of Study, Level 6-8, 2011

	Level 6		Level 7		Level 8	
	2011	% Change 10-11	2011	% Change 10-11	2011	% Change 10-11
Full-time	5,405	-12%	23,416	-1%	110,259	3%
Part-time	3,677	0%	5,519	3%	4,780	-4%
Flexible learning	694	28%	720	3%	1,162	-22%
<b>Total</b>	<b>9,776</b>	<b>-6%</b>	<b>29,655</b>	<b>0%</b>	<b>116,201</b>	<b>2%</b>

Source: HEA

#### Provider Type and Gender

- **Level 6:** IoTs account for the majority of enrolments at this level (80%), while males had a higher share of enrolments than females at 57%; the 6% decline in enrolments at this level since 2010 was divided equally between both genders, and while university enrolments increased by approximately 400, IoT enrolments declined by almost 1,000
- **Level 7:** over 90% of enrolments in 2011 at this level were in IoTs; males accounted for almost two thirds of enrolments at this level; IoT enrolments declined between 2010 and 2011 (relates entirely to a drop in female enrolments), while the 15% increase in university enrolments led to increases for both genders
- **Level 8:** the opposite was the case at this level where university enrolments were in the majority (70%); this level also had a higher female share (53%); the increase in enrolments at this level between 2010 and 2011 was spread almost equally between universities and IoTs, although males accounted for the highest share of the increase and particularly males enrolled in universities.

Table 6.4 Total Enrolments by Provider Type and Gender, Level 6-8, 2011

	Level 6			Level 7			Level 8		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
IoTs	4,681	3,096	7,777	17,317	9,651	26,968	17,629	17,675	35,304
Universities	939	1,060	1,999	1,108	1,579	2,687	36,465	44,432	80,897
<b>Total</b>	<b>5,620</b>	<b>4,156</b>	<b>9,776</b>	<b>18,425</b>	<b>11,230</b>	<b>29,655</b>	<b>54,094</b>	<b>62,107</b>	<b>116,201</b>

Source: HEA

#### Age

The majority of those enrolled in full-time education in the higher education sector are aged 22 or less, with 69% at levels 6/7 in 2011 and 79% at level 8; on the other hand, the vast majority of part-time students were aged 23 or more (91% at levels 6/7, 94% at level 8). While the share of those aged 23-29 enrolled in part-time level 8 courses declined by two percentage points between 2010 and 2011, the share of those aged 30 and above increased by an equivalent amount.

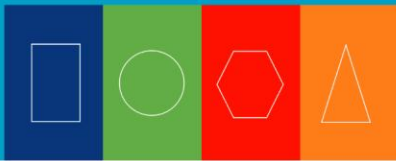


Table 6.5 Full-Time/Part-Time Enrolments by Age, Level 6-8, 2011

	Level 6/7		Level 8	
	Full-time	Part-time	Full-time	Part-time
17 and under	2%	0%	1%	0%
18	12%	0%	11%	0%
19	19%	1%	20%	1%
20	18%	2%	20%	1%
21	12%	2%	17%	2%
22	6%	3%	10%	2%
23-29	17%	23%	13%	24%
30+	14%	68%	7%	70%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: HEA

### 6.3.2 Enrolments by Discipline

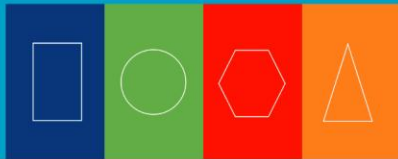
Table 6.6 shows the number of undergraduate enrolments by discipline for NFQ levels 6-8 in 2011.

Table 6.6 Total Enrolments by Discipline and Level, 2011

Discipline	Level 6 2011	% change 10-11	Level 7 2011	% change 10-11	Level 8 2011	% change 10-11
Engineering & Manufacturing	1,108	-12%	5,511	4%	6,861	3%
Construction	260	-34%	2,107	-20%	4,411	-10%
Computing	852	9%	2,632	4%	5,684	18%
Science	588	27%	1,941	25%	12,937	5%
<b>Total Technology</b>	<b>2,808</b>	<b>-3%</b>	<b>12,191</b>	<b>2%</b>	<b>29,893</b>	<b>4%</b>
Agriculture/Veterinary	294	-20%	1,020	0%	1,841	13%
Health & Welfare	1,377	3%	3,548	14%	22,206	4%
<b>Total Health, Vet &amp; Agriculture</b>	<b>1,671</b>	<b>-2%</b>	<b>4,568</b>	<b>14%</b>	<b>24,047</b>	<b>4%</b>
Arts & Humanities*	795	-20%	2,477	-5%	24,676	2%
Education	209	-40%	92	-53%	5,661	-1%
Social Sciences, Business & Law	2,594	-13%	6,122	-11%	29,662	0%
Services	1,699	18%	4,205	3%	2,262	0%
<b>Total Other</b>	<b>5,297</b>	<b>-8%</b>	<b>12,896</b>	<b>-6%</b>	<b>62,261</b>	<b>1%</b>
<b>Total All</b>	<b>9,776</b>	<b>-6%</b>	<b>29,655</b>	<b>0%</b>	<b>116,201</b>	<b>2%</b>

Source: HEA

\*Includes broad programmes and/or combined studies

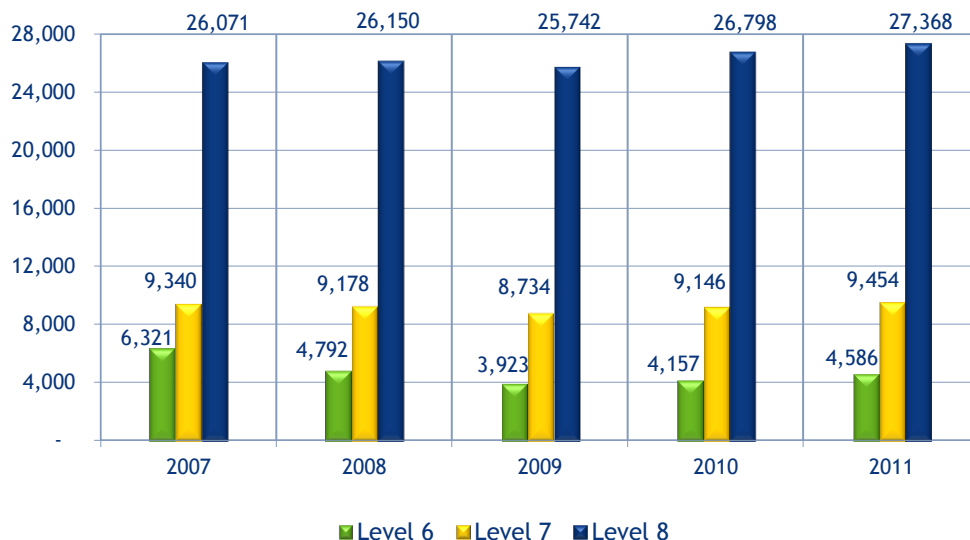


- **Technology:** level 6 enrolments continued the decline experienced in recent years primarily due to declines in uptake in construction and engineering; at levels 7 and 8 slight increases occurred between 2010 and 2011 - for both levels a marked decline in construction was offset by increases in all other technology related subjects, particularly science at level 7 and computing at level 8
- **Health, Veterinary & Agriculture:** enrolments increased at levels 7 and 8 relating almost entirely to an increase in uptake on health and welfare courses; for agriculture/veterinary programmes, level 8 was the only level to experience an increase between 2010 and 2011
- **Other Disciplines:** enrolments on education courses declined across all levels although the numbers involved at levels 6 and 7 were small; services saw a significant increase in level 6 enrolments while level 6 and 7 social sciences, business and law enrolments declined by 13% and 11% respectively; there was very little change at level 8 across all subjects in this category.

## 6.4 Undergraduate Output

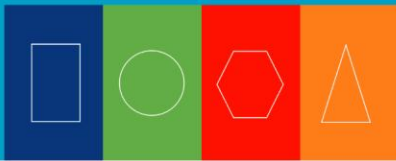
This sub-section examines the latest graduation data and trends for the period 2007-2011. There were 41,400 graduates at levels 6-8 in 2011, an overall increase of 3% on the previous year (Figure 6.3).

Figure 6.3 Total Graduate Output by Level (6-8), 2007-2011



Source: HEA

- **Level 6:** while output declined by 34% between 2007 and 2010, 2011 saw a 10% gain year-on-year
- **Level 7:** output at this level has increased slowly but steadily since 2009 (with a 3% increase between 2010 and 2011) but has yet to return to that of 2007; this is unlikely to occur in the short-term as CAO acceptances have remained unchanged in recent years



- **Level 8:** a levelling off in output at this level appears to be occurring with a 5% increase between 2007 and 2011 but just a 2% increase between 2010 and 2011; CAO acceptance figures do not suggest any significant change in the short to medium term.

### 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

Table 6.7 details the breakdown of graduate output by level, provider type and gender.

Table 6.7 Graduate Output by Provider Type, Gender and Level, 2011

	Level 6			Level 7			Level 8		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
IoT's	1,713	1,226	2,939	4,561	3,141	7,702	4,676	4,982	9,658
Universities	855	792	1,647	619	1,133	1,752	6,991	10,719	17,710
Total	2,568	2,018	4,586	5,180	4,274	9,454	11,667	15,701	27,368

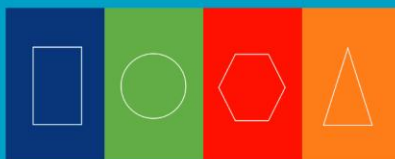
Source: HEA

- **Level 6:** IoT graduates accounted for almost two thirds of all output; an increase of over 400 graduates occurred at this level which was almost equally divided between genders - the gains in IoTs were mostly male; the gains in universities mostly female
- **Level 7:** IoTs accounted for over 80% of all graduates at this level; males accounted for 55% of the total share of graduates; IoTs experienced an increase in output on 2010 (primarily male graduates) but university output declined by 10%
- **Level 8:** in 2011, two thirds of graduate output at this level was from the university sector; females accounted for a 57% share of total output; while the gender share is almost equal in the IoTs, females account for 61% of all level 8 university graduates; the IoTs experienced the largest increase in output on 2010 at 6% (primarily male graduates).

### 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 2010-2011<sup>35</sup>. The 'other' category accounts for the majority of graduate output

<sup>35</sup> The data in these tables does not include output from Springboard courses as these relate mostly to partial awards (e.g. special purpose awards) at certificate, degree and masters level. The output from these courses, however, provides a supply of skills to key sectors of the economy where skills are in demand. The Springboard programme was launched as part of the Government's Jobs Initiative in May 2011. To date 10,000 places have been made available on Springboard courses in ICT, business/management, the green economy, medical devices, bio-pharmachem, food and beverage, and international



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, 2010-2011

Discipline	Level 6			Level 7		
	2010	2011	% Change 2010-11	2010	2011	% Change 2010-11
Engineering & Manufacturing	295	389	32%	1,072	1,344	25%
Construction	210	193	-8%	1,140	972	-15%
Computing	192	226	18%	453	599	32%
Science	120	177	48%	440	400	-9%
<b>Total Technology</b>	<b>817</b>	<b>985</b>	<b>21%</b>	<b>3,105</b>	<b>3,315</b>	<b>7%</b>
Agriculture/Veterinary	109	152	39%	269	298	11%
Health & Welfare	669	807	21%	1,050	1,369	30%
<b>Total Health, Vet &amp; Agriculture</b>	<b>778</b>	<b>959</b>	<b>23%</b>	<b>1,319</b>	<b>1,667</b>	<b>26%</b>
Arts & Humanities*	311	369	19%	1,213	932	-23%
Education	37	29	-22%	51	29	-43%
Social Sciences, Business & Law	1,185	1,178	-1%	2,434	2,482	2%
Services	1,029	1,066	4%	1,024	1,029	0%
<b>Total Other</b>	<b>2,562</b>	<b>2,642</b>	<b>3%</b>	<b>4,722</b>	<b>4,472</b>	<b>-5%</b>
<b>OVERALL Total</b>	<b>4,157</b>	<b>4,586</b>	<b>10%</b>	<b>9,146</b>	<b>9,454</b>	<b>3%</b>

Source: HEA

\*Also includes studies in general programmes

- **Technology (Level 6 and 7):** increases occurred across all technology subjects excluding construction (both levels) and level 7 science; while level 7 technology output is expected to continue to increase in the short to medium term based on increased CAO acceptances and enrolments, increases in output at level 6 are not likely to be sustained
- **Health, Veterinary & Agriculture (Level 6 and 7):** while output for agriculture/veterinary courses increased year-on-year for both levels, the numbers involved are small; health and welfare output also experienced significant gains between 2010 and 2011, with courses in social services accounting for the majority of the overall output for both levels
- **Other Disciplines (Level 6 and 7):** output increased by 3% between 2010 and 2011 at level 6 while declining by 5% at level 7 with the biggest declines in arts and humanities at level 7; declines at level 7 are expected to persist due to a drop in enrolment levels in recent years.

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

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financial services; a further 6,000 places will be available in 2013 in ICT, international languages, International Financial Services, international selling, six sigma and business start-ups and entrepreneurship skills.



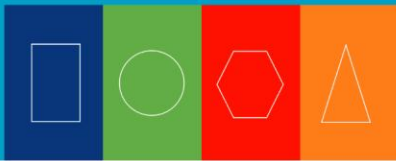


Table 6.9 Level 8 Graduate Output by Discipline, 2010 & 2011

Level 8 graduates	2010	2011	% Change 2010-11
Engineering & Manufacturing	1,591	1,647	4%
Construction	1,546	1,457	-6%
Computing	960	1,200	25%
Science	2,323	2,380	2%
<b>Total Technology</b>	<b>6,420</b>	<b>6,684</b>	<b>4%</b>
Agriculture/ Veterinary	274	301	10%
Health & Welfare	4,687	4,604	-2%
<b>Total Health, Vet. &amp; Agriculture</b>	<b>4,961</b>	<b>4,905</b>	<b>-1%</b>
Arts & Humanities	5,018	5,347	7%
Education	1,693	1,806	7%
Social Sciences, Business & Law	8,126	7,895	-3%
Services	580	731	26%
<b>Total Other</b>	<b>15,417</b>	<b>15,779</b>	<b>2%</b>
<b>OVERALL TOTAL</b>	<b>26,798</b>	<b>27,368</b>	<b>2%</b>

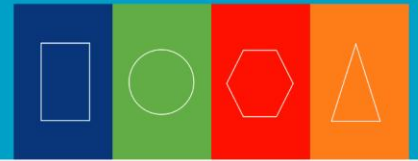
Source: HEA

#### Technology (Level 8)

- **Engineering:** output has been increasing since 2009 and is likely to continue to do so in to the medium term due to increases in CAO acceptances and enrolments
- **Construction:** this is the first year that a decline in output has occurred as the impact of the downward trend in the construction sector takes a belated effect; it is expected that the downward trend is due to continue in the medium term due to the continued decline in CAO acceptances and enrolments
- **Computing:** output continues to show significant growth with a 25% increase between 2010 and 2011; strong growth in CAO acceptances and enrolments suggest a continuation of this trend in the medium term; output is occurring primarily for courses in software engineering/development and information systems and to a lesser extent networks and games development
- **Science:** graduate output in this subject has remained relatively unchanged in recent years; enrolment and CAO acceptance data suggests signs of growth in the short term albeit at a modest level

#### Healthcare, Veterinary & Agriculture (Level 8)

- **Health and Welfare:** increases in enrolments suggests a reversal of the decline experienced in 2011 may occur in the short term



- **Agriculture/Veterinary:** output is expected to continue to increase as the impact of increases in enrolments since 2009 have yet to be fully realised, although it should be borne in mind that the numbers involved are small.

#### Other Disciplines (Level 8)

- **Arts & Humanities:** this subject experienced a 7% increase in output, with modest increases expected to continue into the medium term
- **Education:** graduate output continues to fluctuate; static enrolments and small gains in CAO acceptances should result in a stabilisation of output numbers in the short to medium term<sup>36</sup>
- **Social Sciences, Business & Law:** this discipline accounted for the largest share of output in 2011; little change in output levels is expected in the short to medium term
- **Services:** while output experienced a significant increase (of 26%), a stabilisation of output is likely to occur, albeit at a higher level, in the medium term.

## 6.5 Non-Presence Rates in Higher Education

Not all higher education entrants will complete their course of study. On average, 15% of all those who commenced their higher education studies in 2007/2008 were not present one year later (HEA 2010<sup>37</sup>). Beyond the first year of higher education, non-presence rates tend to decline: the non-presence rate for second year students fell on average to 7% and further again to 4% and 5% for third and fourth year students respectively.

Non-presence rates vary considerably by NFQ level: at 25% and 26% respectively, the non-presence rates of those entering level 6 and 7 programmes was more than double that of those entering level 8 programmes (11%). Non-presence rates also vary according to fields of education: the lowest rates were found for new entrants in the fields of education (4%) and healthcare (9%), but, at 27% on average, the highest non-presence rate was found amongst new entrants on computer science courses.

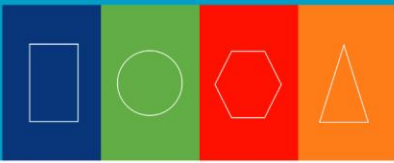
## 6.6 International Comparison

This section outlines the findings of the OECD publication 'Education at a Glance 2012' in order to compare Ireland's performance in terms of undergraduate output with that of other countries. As outlined in Chapter 1 (Section 1.3), programmes leading to higher certificates and ordinary bachelor degrees correspond to ISCED level 5B; programmes leading to an honours bachelor degree correspond to ISCED level 5A first degree.

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<sup>36</sup> It should be noted, however, that there is an increasing number of graduates from HETAC accredited education courses delivered through private independent colleges

<sup>37</sup> A Study of Progression in Irish Higher Education (HEA 2010)

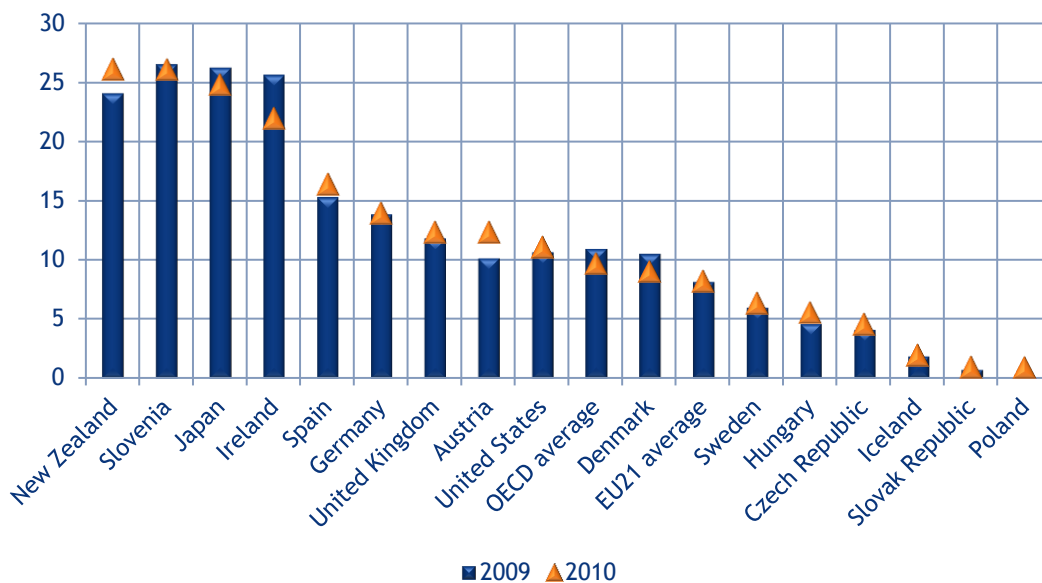


### 6.6.1 International Comparison (Tertiary Type B)

Graduation rates refer to the number of graduates divided by the population at the typical age of graduation. Figure 6.4 shows the graduation rates for selected OECD countries in 2009 and 2010 from ISCED level 5B programmes.

- With a graduation rate of 22%, Ireland ranks well above the OECD and EU21 averages (9.7% and 8.2% respectively) and among the top ranking countries in terms of graduate output at this level
- When compared to 2009, Ireland's graduation rate dropped by almost four percentage points (down from almost 26%).

Figure 6.4 Tertiary Type B Graduation Rates (%) in Selected Countries, 2009 and 2010



Source: OECD Education at a Glance 2012. Data extracted April 2013

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.

### 6.6.2 International Comparison (Tertiary Type A)

Figure 6.5 shows the rates for ISCED level 5A first degree programmes.

- With a graduation rate of almost 47%, Ireland ranks well above the OECD and EU21 averages (38.1% and 37.2% respectively) (note EU21 average for 2009 was not available)
- The graduation rate at this level declined marginally (by half a percentage point) for Ireland between 2009 and 2010.

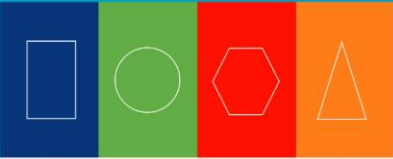
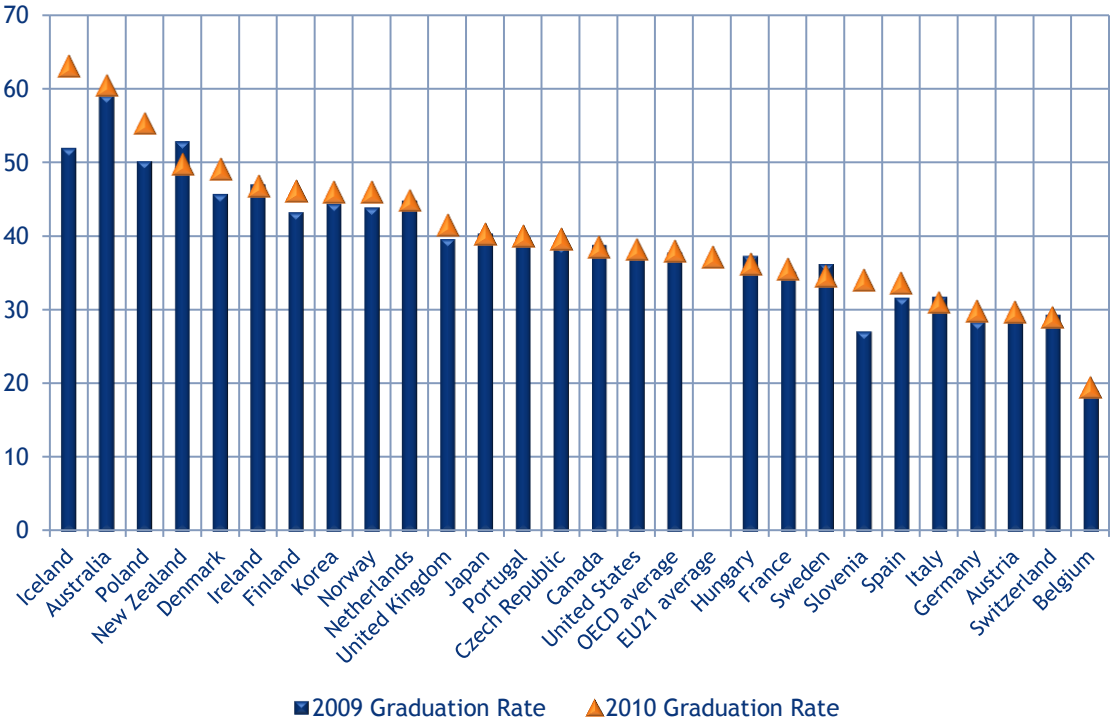
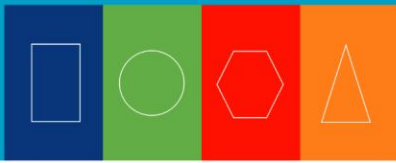


Figure 6.5 Tertiary Type A (First Degree) Graduation Rates (%) in Selected Countries, 2009 and 2010



Source: OECD Education at a Glance 2012 and Education at a Glance 2011. Data extracted April 2013



## Chapter 7 Postgraduate Higher Education (Levels 9/10)

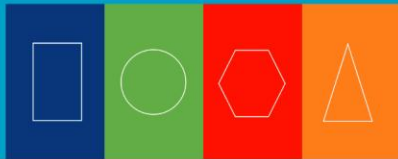
### Key Points

- Enrolments totalled approximately 33,600 in 2011, a 1% decline on 2010; while enrolments on masters and PhD programmes increased between 2010 and 2011, postgraduate cert/diploma enrolments declined by 9%
- Graduate Output: a total of 17,647 students graduated with a postgraduate qualification in 2011, a 3% decline since 2010 but 20% higher than output in 2007
- Outlook: the decline in postgraduate cert/diploma enrolments since 2010 will negatively impact short term future postgraduate output, although continued gains for masters and PhD programmes may offset this decline
- Engineering & Manufacturing: a decline in output occurred between 2010 and 2011 although output levels for masters courses remain considerably higher than in 2009
- Construction: the 20% decline that occurred was shared between postgraduate cert/diplomas and masters although the numbers involved are small
- Computing: despite an overall decline of 6%, output is still higher than in recent years with increases in enrolments in 2011 likely to impact on output in the short term
- Science: output has been increasing steadily since 2009 across all programme types with science still retaining the largest share of PhD graduates at 31%
- International Comparison: at 25%, Ireland's graduation rate from ISCED level 5 second degree programmes (e.g. masters) was 25%, well above the OECD and EU 21 averages (15% and 17% respectively) and had the third highest graduation rate overall; in contrast, in terms of graduates at PhD level, Ireland (at 1.6%) ranks slightly below the EU21 average (1.7%) and at the OECD average also (1.6%)

### 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.

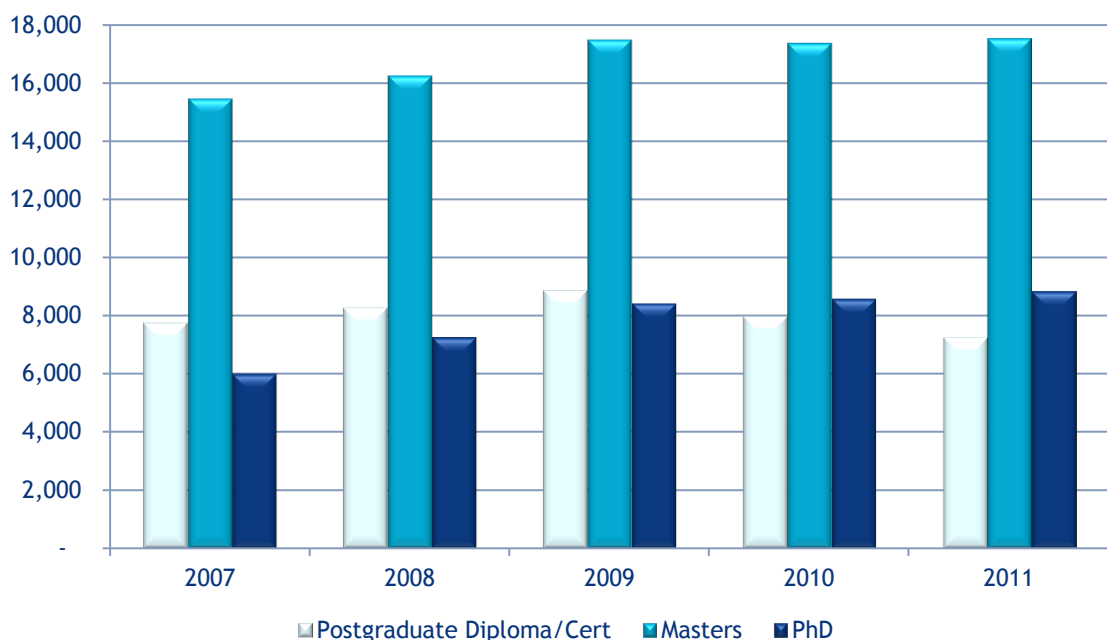
Section 7.2 examines enrolments in postgraduate education at levels 9/10. This is followed by an analysis of graduate output at these levels. Variables examined for both enrolment and graduation data include a discipline breakdown and student details (such as gender, higher education provider type etc.). 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 over 33,600 postgraduate students enrolled in Ireland's universities and IoTs in 2011 (Figure 7.1); while this represents a decline of 1% on the previous year, it is a 15% increase on 2007 enrolment levels. Overall postgraduate enrolments have been in decline since 2009 due to a fall-off in the numbers enrolling on postgraduate cert/diploma programmes; while enrolments on masters and PhD programmes increased between 2010 and 2011, postgraduate cert/diploma enrolments declined by 9%.

Figure 7.1 Level 9/10 IoT and University Enrolments, 2007-2011



Source: HEA; DES

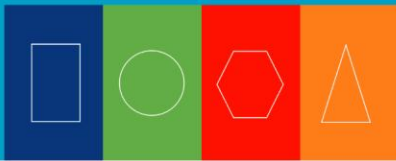
### 7.2.1 Postgraduate Enrolments: Student Details

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

#### Gender and Provider Type

An analysis of the gender of those enrolling on postgraduate programmes and the providers of these courses is illustrated in Table 7.1.

- Postgraduate certs/diplomas:** universities accounted for 89% of all enrolments for this programme type in 2011; the share of females stood at 62%; the decline in enrolments on postgraduate cert/diploma courses between 2010 and 2011 affected both genders but was most pronounced for females in universities with a decline of over 500 between 2010 and 2011



- **Masters:** the gender share was almost evenly divided for this programme type with females having a 53% share; almost 80% of enrolments were in universities; the decline in female enrolments on IoT masters programmes was outweighed by an increase in females enrolling on university masters courses
- **PhDs:** almost all PhD enrolments occurred in universities (with a 94% share in 2011); both genders held an equal share; enrolments increased between 2010 and 2011 particularly in universities.

Table 7.1 Enrolments by Provider Type and Gender, 2010 & 2011

	Postgraduate Certs /Diplomas				Masters				PhD			
	2010		2011		2010		2011		2010		2011	
	M	F	M	F	M	F	M	F	M	F	M	F
IoT	379	311	467	332	1,963	1,827	2,072	1,696	288	231	306	243
Uni	2,578	4,703	2,299	4,147	6,167	7,424	6,205	7,567	4,017	4,035	4,120	4,157
Total	2,957	5,014	2,766	4,479	8,130	9,251	8,277	9,263	4,305	4,266	4,426	4,400

Source: HEA

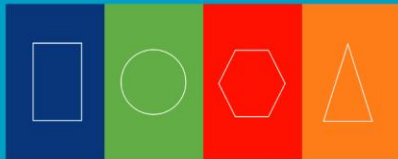
#### Full-time/Part-time

- **Postgraduate certs/diplomas:** the decline in the number of persons enrolling on postgraduate cert/diploma programmes occurred for both full-time and part-time courses; while part-time enrolments accounted for 54% of the decline between 2009 and 2010, they accounted for over two thirds of the decline between 2010 and 2011 (Table 7.2). This has led to the share of full-time enrolments increasing from 45% to 47% between 2010 and 2011
- **Masters:** while full-time enrolments have been in decline in recent years, part-time enrolments have been increasing, particularly between 2010 and 2011
- **PhDs:** the majority (87% in 2011) of PhD enrolments were for full-time programmes; increases have occurred for both full-time and part-time programmes, albeit in small numbers.

Table 7.2 Enrolments by Full-Time and Part-Time Status, 2009-2011

	Postgraduate Certs /Diplomas			Masters			PhD		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Full-time	4,028	3,620	3,390	10,909	10,628	10,327	7,414	7,512	7,684
Part-time	4,832	4,351	3,855	6,589	6,753	7,213	1,005	1,059	1,142
Total	8,860	7,971	7,245	17,498	17,381	17,540	8,419	8,571	8,826

Source: HEA



## Age

- **Postgraduate certs/diplomas:** the majority of those enrolled in this programme type were aged 30 and above; while the overall number of persons enrolled declined the shares by age group remained unchanged between 2010 and 2011
- **Masters:** this programme type had the highest share of persons aged 17-22, at 16%
- **PhDs:** almost all (97% in 2011) persons enrolled on PhD programmes were aged 23 or above

Table 7.3 Enrolments by Age, 2010-2011

	PG Certs/Diplomas		Masters		PhDs	
	2010	2011	2010	2011	2010	2011
17-22	9%	9%	16%	16%	3%	3%
23-29	39%	39%	41%	40%	53%	51%
30+	52%	52%	43%	44%	45%	46%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: HEA

## 7.2.2 Level 9/10 Enrolments by Discipline

Table 7.4 details student enrolments by discipline and programme type for 2010 and 2011.

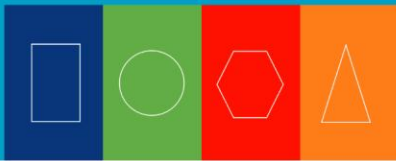
Table 7.4 Level 9/10 Enrolments in Higher Education by Discipline, 2010-2011

	Postgraduate Certs/Diplomas		Masters		PhD	
	2010	2011	2010	2011	2010	2011
Engineering & Manufacturing	120	84	1,169	1,106	924	958
Construction	97	119	359	352	201	219
Computing	275	432	1,004	1,624	492	506
Science	262	274	1,486	941	2,170	2,140
<b>Total Technology</b>	<b>754</b>	<b>909</b>	<b>4,018</b>	<b>4,023</b>	<b>3,787</b>	<b>3,823</b>
Agriculture/ Veterinary	28	34	112	134	176	134
Health & Welfare	2,288	1,728	2,171	2,489	1,238	1,454
<b>Total Health, Vet. &amp; Agriculture</b>	<b>2,316</b>	<b>1,762</b>	<b>2,283</b>	<b>2,623</b>	<b>1,414</b>	<b>1,588</b>
Arts & Humanities*	313	236	2,672	2,655	1,462	1,465
Education	2,732	2,572	1,501	1,515	437	473
Social Sciences, Business & Law	1,740	1,640	6,558	6,422	1,402	1,401
Services	116	126	349	302	69	76
<b>Total Other</b>	<b>4,901</b>	<b>4,574</b>	<b>11,080</b>	<b>10,894</b>	<b>3,370</b>	<b>3,415</b>
<b>OVERALL TOTAL</b>	<b>7,971</b>	<b>7,245</b>	<b>17,381</b>	<b>17,540</b>	<b>8,571</b>	<b>8,826</b>

Source: HEA

\*Includes general, broad and combined programmes





### Technology

- **Engineering and Manufacturing:** declines continued to occur across all programme types excluding PhDs, although at a slower pace than previous years
- **Construction:** no significant changes occurred in enrolment levels between 2010 and 2011
- **Computing:** a reversal of the declines experienced in 2010 occurred in 2011, with gains across all programme types, particularly at masters level; overall, there was an increase of 800 across all postgraduate programme types
- **Science:** following significant gains made in 2010, enrolments on masters programmes returned to pre-2009 levels.

### Health, Agriculture and Veterinary

- **Agriculture & Vet:** there was no overall change in the enrolment levels for agriculture and veterinary courses between 2010 and 2011
- **Health & Welfare:** the overall number of postgraduate enrolments for this discipline remained unchanged between 2010 and 2011, although this masks a significant decline in the number of enrolments on postgraduate cert/diploma (particularly for nursing and caring courses) and a marked increase in masters enrolments.

### Other Disciplines

- **Arts & Humanities:** very little change occurred in enrolment levels across all programme types between 2010 and 2011
- **Education:** enrolment levels in postgraduate certs/diplomas continued to decline while masters and PhD programmes experienced small increases
- **Social science, Business & Law:** enrolments declined across all programme types, particularly at masters level
- **Services:** no significant changes occurred between 2010 and 2011.

## 7.3 Level 9/10 Graduates

A total of 17,647 students graduated with a postgraduate qualification in 2011 as shown in Figure 7.2. There has been a 3% decline since 2010 but graduate numbers remained 20% higher than in 2007. Of the total output, 32% were postgraduate certs/diplomas, 60% were masters and 8% were for PhD programmes; both the output and overall share of postgraduate certs/diplomas declined since 2010. while output levels increased for both masters and PhD programmes.

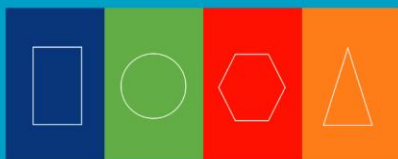
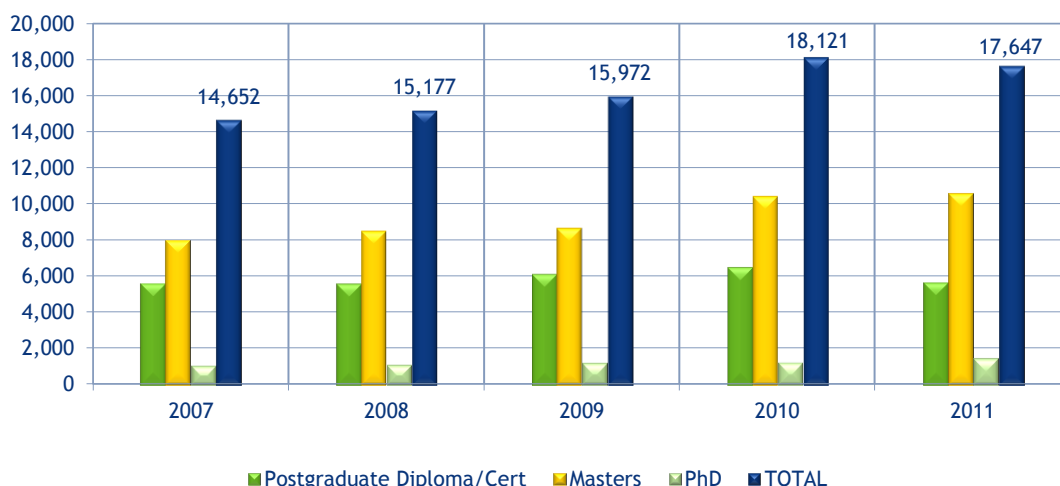


Figure 7.2 Level 9/10 Graduate Output by Award Type, 2007-2011



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

Universities accounted for the highest share of postgraduate output (at 87%). The share of females was highest for all programme types excluding PhD programmes (Table 7.5). When compared with 2010:

- **Postgraduate certs/diplomas:** declines occurred across both genders and provider types, although this was most pronounced for females in universities
- **Masters:** output for males declined for both provider types, while female output increased by almost equal amounts for both IoTs and universities
- **PhDs:** increases occurred across all categories but particularly for universities.

Table 7.5 Graduates by Provider Type and Gender, 2010 and 2011

	Postgraduate Certs/Diplomas				Masters				PhD			
	2010		2011		2010		2011		2010		2011	
	M	F	M	F	M	F	M	F	M	F	M	F
IoT	261	262	231	246	924	781	841	896	45	24	61	43
Universities	1,949	4,008	1,749	3,407	4,058	4,656	4,036	4,794	593	560	674	669
Total	2,210	4,270	1,980	3,653	4,982	5,437	4,877	5,690	638	584	735	712

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 2010 and 2011<sup>38</sup>.

Table 7.6 Level 9/10 Graduations by Discipline, 2010-2011

Level 9/10 Graduates	2010				2011				% Change 10-11
	PG Cert/ Dip	Masters	PhDs	Total	PG Cert/ Dip	Masters	PhDs	Total	
Engineering & Manufacturing	153	657	165	975	99	586	178	863	-11%
Construction	101	202	17	320	66	165	26	257	-20%
Computing	233	744	71	1,048	242	674	68	984	-6%
Science	174	461	365	1,000	208	524	444	1,176	18%
<b>Total Technology</b>	<b>661</b>	<b>2064</b>	<b>618</b>	<b>3,343</b>	<b>615</b>	<b>1,949</b>	<b>716</b>	<b>3,280</b>	<b>-2%</b>
Agriculture/ Vet	43	26	37	106	1	37	15	53	-50%
Health & Welfare	1,551	1,058	189	2,798	1,288	1,239	213	2,735	-2%
<b>Total Health, Vet. &amp; Agriculture</b>	<b>1,594</b>	<b>1,084</b>	<b>226</b>	<b>2,904</b>	<b>1,289</b>	<b>1,276</b>	<b>228</b>	<b>2,788</b>	<b>-4%</b>
Arts & Humanities*	261	1,730	179	2,170	254	1,807	234	2,295	6%
Social Sciences, Business & Law	1,237	4,719	133	6,089	1,147	4,576	218	5,941	-2%
Education	2,600	558	46	3,204	2,238	731	36	3,004	-6%
Services	127	264	20	411	90	228	15	333	-19%
<b>Total Other</b>	<b>4,225</b>	<b>7,271</b>	<b>378</b>	<b>11,874</b>	<b>3,729</b>	<b>7,342</b>	<b>503</b>	<b>11,573</b>	<b>-3%</b>
<b>OVERALL TOTAL</b>	<b>6,480</b>	<b>10,419</b>	<b>1,222</b>	<b>18,121</b>	<b>5,633</b>	<b>10,567</b>	<b>1,447</b>	<b>17,641</b>	<b>-3%</b>

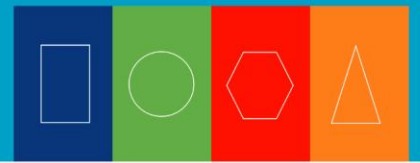
Source: HEA

\*Includes general and combined studies

#### Technology

- **Engineering & Manufacturing:** a decline in output occurred between 2010 and 2011 although output levels for masters courses remain considerably higher than in 2009
- **Construction:** the 20% decline that occurred was shared between postgraduate cert/diplomas and masters although the numbers involved are small

<sup>38</sup> The data in these tables does not include output from Springboard courses as these relate mostly to partial awards (e.g. special purpose awards) at certificate, degree and masters level. The output from these courses, however, provides a supply of skills to key sectors of the economy where skills are in demand. The Springboard programme was launched as part of the Government's Jobs Initiative in May 2011. To date 10,000 places have been made available on Springboard courses in ICT, business/management, the green economy, medical devices, bio-pharmachem, food and beverage, and international financial services; a further 6,000 places will be available in 2013 in ICT, international languages, International Financial Services, international selling, six sigma and business start-ups and entrepreneurship skills.



- **Computing:** despite an overall decline in output of 6%, output is still higher than recent years with increases in enrolments in 2011 likely to positively impact on output in the short term
- **Science:** output has been increasing steadily since 2009 across all programme types, with science still retaining the largest share of PhD graduates; a sharp decline in enrolments for masters programmes suggest this increase will halt in the short term.

#### Health, Vet and Agriculture

- **Agriculture & Vet:** a 50% decline in output occurred, albeit from a small base.
- **Health & Welfare:** a decline in output for postgraduate cert/diplomas was balanced by an increase in output for masters programmes resulting in little change in overall output levels.

#### Other Disciplines

- **Arts & Humanities:** output from this discipline has been expanding since 2008
- **Social science, Business & Law:** declines occurred across all programme types excluding PhDs although output levels remain higher than in 2007
- **Education:** the decline in overall output was a result of a fall in the number of postgraduate cert/diploma graduates; this is expected to continue due to a concurrent decline in enrolments for this programme type<sup>39</sup>; in contrast, masters output increased between 2010 and 2011
- **Services:** declines in output occurred across all programme types in the time period examined although the numbers involved are small.

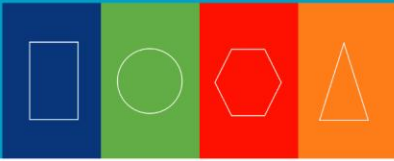
## 7.4 International Comparison

This section outlines the findings of the OECD publication ‘Education at a Glance 2012’ in order to compare Ireland’s performance in terms of undergraduate output with that of other countries. As outlined in Chapter 1 (Section 1.3), programmes leading to postgraduate qualifications (e.g. masters degree) correspond to ISCED level 5A second degree; programmes leading to a PhD award correspond to ISCED level 6 advanced research degree. Graduation rate refers to the number of graduates to the population at typical age of graduation.

Figure 7.3 shows the graduation rates for selected OECD countries in 2009 and 2010 from ISCED 5A second degrees.

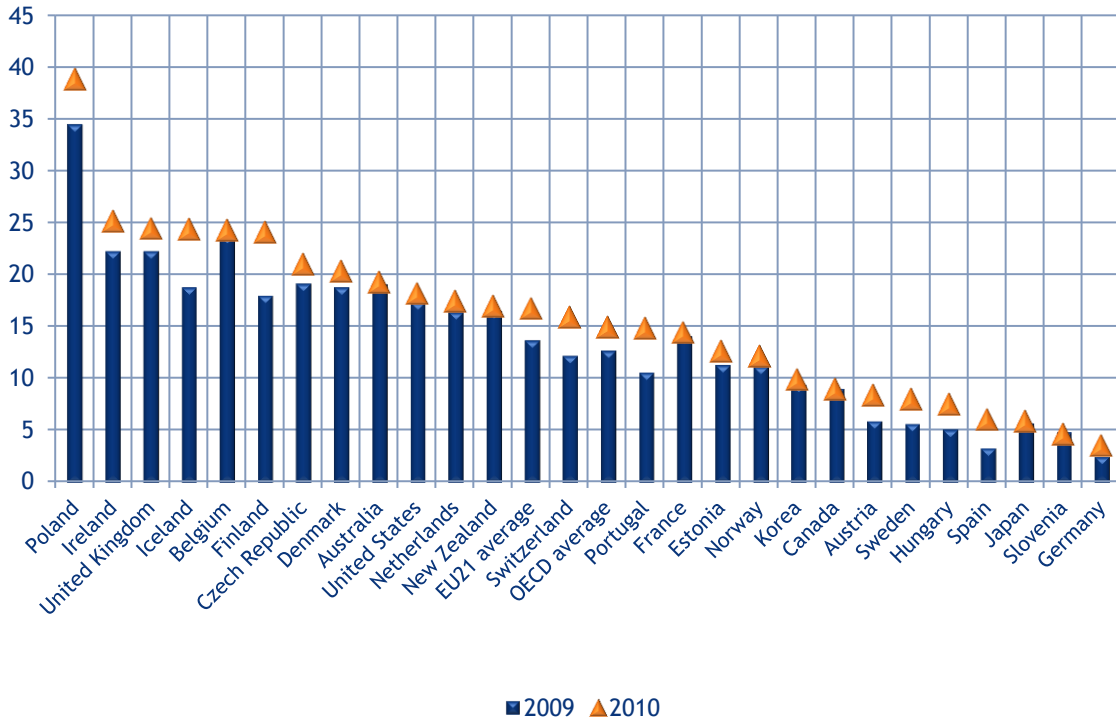
- Ireland’s graduation rate at this level in 2010 was 25%, well above the OECD and EU 21 averages (15% and 17% respectively) and had the third highest graduation rate overall, behind Poland and the Slovak Republic (not illustrated in graph), each at 36% or higher
- The graduation rate for Ireland increased slightly (by almost three percentage points) between 2009 and 2010; however, it also increased for the vast majority of countries presented here;

<sup>39</sup> It should be noted however that there is an increasing number of graduates from HETAC accredited education courses delivered through private independent colleges



over the same period, the OECD average and EU average grew by two and three percentage points respectively.

Figure 7.3 Tertiary Type A (2<sup>nd</sup> Degree) Graduation Rates (%) in Selected Countries, 2009- 2010



Source: OECD Education at a Glance 2012 and Education at a Glance 2011. Data extracted April 2013

Figure 7.4 shows that graduation rates in selected OECD countries for advanced research programmes (equivalent to doctoral degree programmes).

- While Ireland’s graduation rate (1.6%) was below the EU 21 average (1.7%), it was at the OECD average and above those of other countries such as France, Belgium, and Canada
- Despite a slight increase between 2009 and 2010, Ireland still ranks well below the top performing countries in terms of PhD graduate output, with countries such as Switzerland and the Slovak republic having rates at least twice that of Ireland.

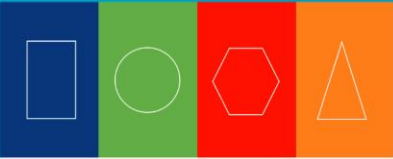
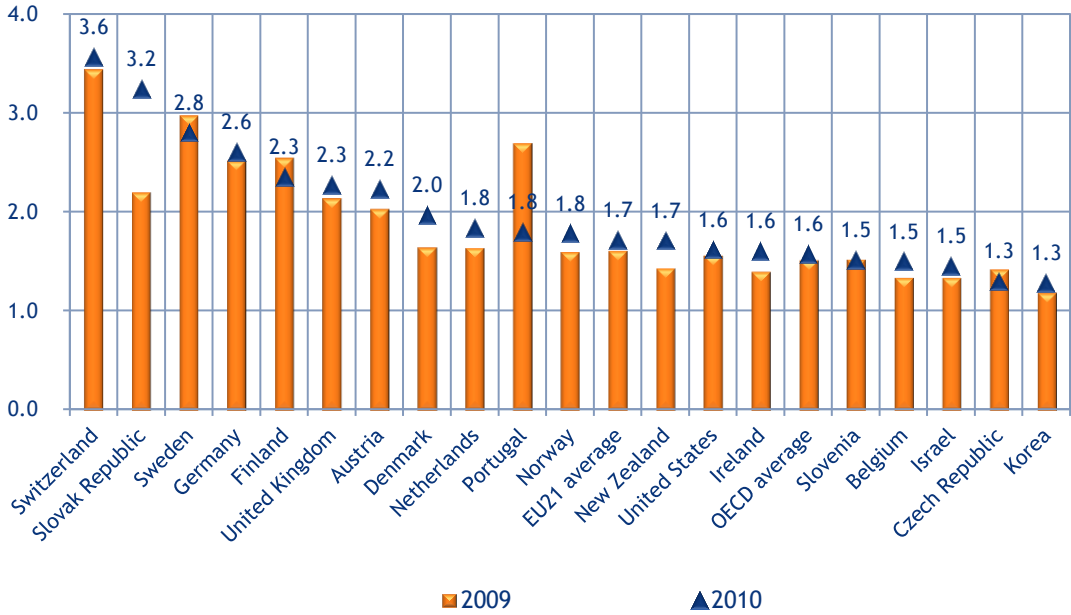
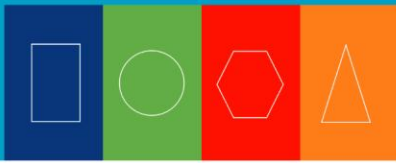


Figure 7.4 Advanced Research Degree (PhD) Graduation Rates in Selected OECD Countries, 2009-2010



Source: OECD Education at a Glance 2012. Data extracted April 2013



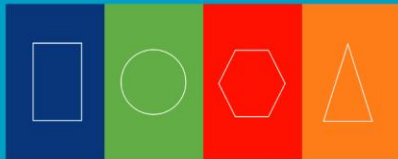
## Chapter 8 Where do Graduates Go?

### Key Points

- In 2011, according to the First Destination Survey, 71% of level 9/10 graduates were in employment (in both Ireland and overseas) nine months after graduation compared to 48% of level 8 graduates; level 8 graduates had a higher share who went on to further education and training at 41% compared to 13% for level 9/10 graduates
- Between quarter 4 2009 and quarter 4 2012, there was an overall drop in the number of persons aged 25-29 years in Ireland from 390,000 to 330,000
- The decline in both population and employment levels of persons aged 25-29 was most prominent for those with level 6/7 qualifications and lower secondary education; the number of level 8+ graduates in the population and in employment remained relatively stable over the period examined
- Level 8+ graduates had the highest share in employment in quarter 4 2012 at 82%
- More females than males aged 25-29 years held a level 8+ qualification in quarter 4 2012 and they also had a higher share in employment at 84% compared to their male counterparts (at 80%)
- Those who graduated with a level 8+ qualification over six years previously were more likely to be in employment than newer graduates; this is more pronounced in quarter 4 2012 than in quarter 4 2009
- In terms of fields of education, while level 8+ education graduates had the highest share of employment at 93%, those with science, mathematics and computing qualifications in employment had the largest percentage point increase from 68% to 77% over the period quarter 4 2009-quarter 4 2012
- Those with level 8+ education qualifications were the most likely to be employed in a related occupation (at 88%) while those with science, mathematics and computing qualifications were least likely to be employed in a related field at 39% (a further 25% are in social science, business and law (in occupations such as economists and statisticians) and 14% in engineering)
- Level 8+ graduates were more likely to be employed in higher skilled occupations than those with lower education attainment; while employment levels of level 8+ graduates declined for most occupational groups between quarter 4 2009 and quarter 4 2012, it was not as significant as for those with lower levels of education attainment
- The education sector had the highest share of level 8+ graduates aged 25-29 years at 84% in quarter 4 2012, while 75% of those employed in professional services had level 8+ qualifications

### 8.1 Introduction

This chapter focuses on those who have recently attained a higher education qualification. Following a summary of key data from the HEA's First Destination Survey (FDS) on recent graduates



from Irish higher education institutions, Section 8.3 presents an analysis of the economic status of Ireland’s young graduates (25-29 year olds) based on the Central Statistics Office (CSO) Quarterly National Household Survey (QNHS).

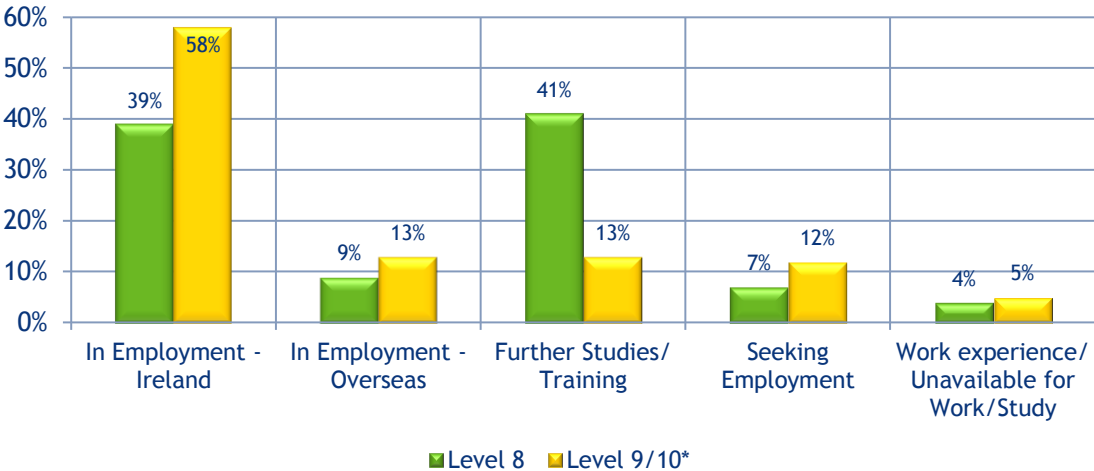
### 8.2 First Destination

On completion of their studies at higher education, students have a number of options available, including, among others, entering the labour market or remaining within the education and training system. The HEA regularly conducts a survey of recent graduates nine months after they graduate in order to capture their first destination choices. The latest data currently available relates to those who graduated in 2011 from the university sector. The number of level 7/6 graduates from universities is not representative of the total level 7/6 population and is therefore excluded from this analysis; it is, however, estimated that approximately 70% of level 7/6 graduates from IoTs pursue further study or training.

Figure 8.1 illustrates the first destination of graduates at levels 8-10 from universities in 2011. The key findings are:

- compared to level 8 graduates, level 9/10 graduates had a higher share of persons in employment both in Ireland and overseas - a combined total of 71% compared to 48% at level 8
- over 40% of level 8 graduates were in further studies nine months after graduating compared to 13% of level 9/10 graduates
- a higher share of level 9/10 graduates were seeking employment at 12% compared to 7% for level 8 graduates
- a small share of graduates were in a work experience scheme or unavailable for work or study, with 4% for level 8 graduates and 5% for level 9/10 graduates.

Figure 8.1 First Destination of Level 8-10 Higher Education Graduates, 2011



Source: HEA

\*Level 9/10 includes Masters and PhDs only



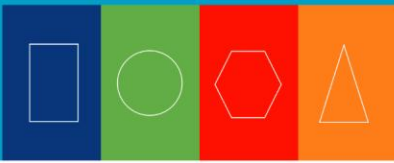
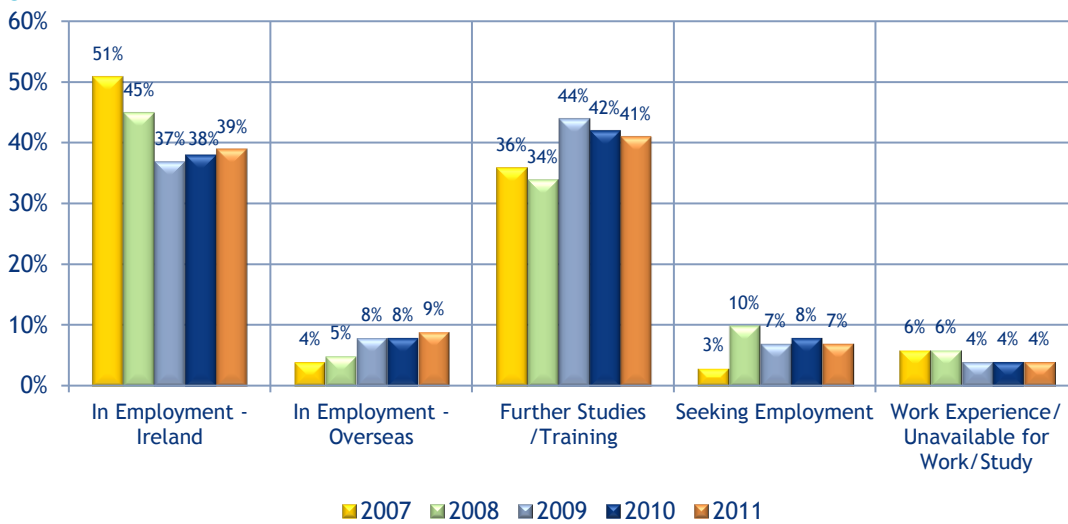


Figure 8.2 provides an analysis of trends relating to level 8 graduates over a five year period from 2007 to 2011. The main findings are:

- while the share of 2011 level 8 graduates in employment in Ireland nine months after graduating is significantly below that of five years previously, the share has been increasing in recent years
- the share of level 8 graduates in employment overseas has more than doubled, from 4% in 2007 to 9% in 2011
- there was a slight decline in the share of graduates in further study or training between 2010 and 2011, although it remained higher than in 2007
- the shares seeking employment and unavailable for work have remained relatively unchanged in recent years.

Figure 8.2 First Destination of Level 8 Graduates, 2007-2011



Source: HEA

The main findings from the five year trend for level 9/10 as illustrated in Figure 8.3 are:

- almost three fifths of level 9/10 graduates were in employment in Ireland in 2011 with increases occurring since 2009, albeit at a slow pace
- the share of those in employment overseas increased by three percentage points between 2010 and 2011
- the share of those in further studies or training peaked at 17% in 2009 but declined to 13% in 2011
- the proportion of level 9/10 graduates seeking employment declined in 2011 from a peak of 16% in 2010 to 12% in 2011
- there has been little change in the share of those unavailable for work or study in recent years.

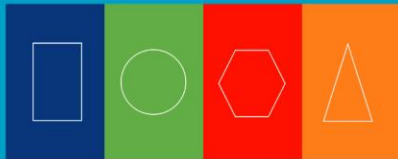
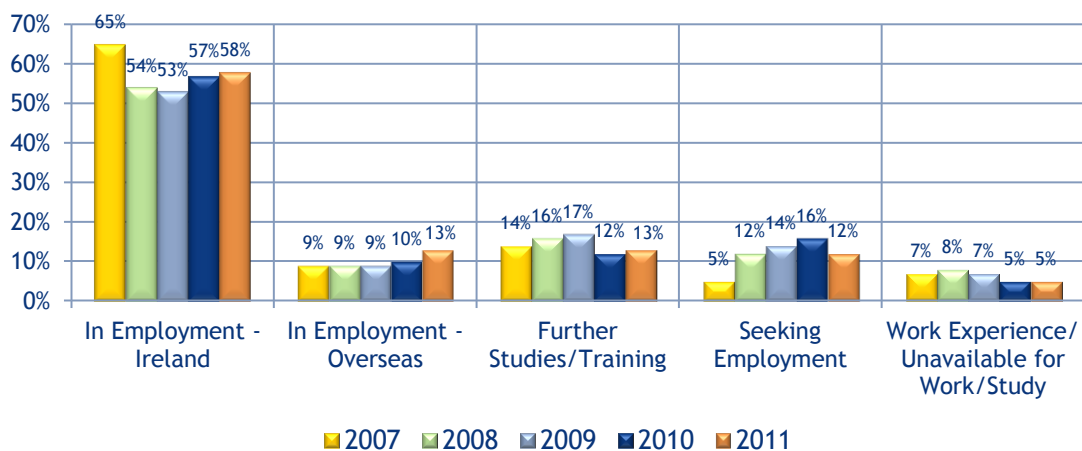


Figure 8.3 First Destination of Level 9 Masters and Level 10 PhD Graduates, 2007-2011



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 25-29 years as this age cohort is the closest proxy for recent graduates from higher education. Previous reports examined 25-34 year olds but due to a change in data available from the CSO it is now possible to disaggregate this further to 25-29 year olds, thus providing a closer proxy to recent graduates than was previously possible. It should be noted, however, that due to this change data from previous reports are not directly comparable. The educational attainment of recent graduates is examined as is their employment profile.

The QNHS is a quarterly survey conducted 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, not active), 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 2012 is the latest available data at the time of writing; quarter 4 2009 is utilised as a comparison point.

### 8.3.1 Graduates in the Population

A total of 331,400 persons in the population in Ireland were aged between 25 and 29 years in quarter 4 2012 (see Table 8.1). Of these, almost a third, or 106,500, had attained a third level degree or above (corresponding to NFQ levels 8-10). A further 44,200, or 13%, had attained a third level non-degree qualification (corresponding to NFQ levels 6-7). Leaving Cert and further education and training (FET) accounted for the largest educational group accounting for 41% of the total for this age cohort.

Table 8.1 Population Aged 25-34 by Education Attainment, Quarter 4 2009 and Quarter 4 2012

Education Attainment	25-29	% of Total 2012	% change q409-q412
Third level degree or above (NFQ Level 8+)	106,500	32%	-1%
Third level non-degree (NFQ Level 6/7)	44,200	13%	-34%
Leaving Cert and FET(NFQ Level 4/5)	135,900	41%	-4%
Lower Secondary or less (NFQ Level 3 or less)	34,100	10%	-35%
Other/Not stated	10,700	3%	-50%
<b>Total</b>	<b>331,400</b>	<b>100%</b>	<b>-15%</b>

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

While the overall population aged 25-29 years declined from 390,000 in quarter 4 2009 to 331,000 in quarter 4 2012, this was not spread equally across all educational groups. The numbers of persons with level 8+ qualifications remained almost unchanged over the time frame examined while the number of persons aged 25-29 years with a level 6/7 qualification dropped by over a third, as did those with lower secondary education attainment; this may be due in part to an increase in popularity of an honours bachelor degree over an ordinary degree but other elements, such as migration, are also a factor which appear to be affecting those with lower education attainment more so than level 8+ graduates.

### 8.3.2 Economic Status of Graduates

Table 8.2 focuses on the economic status of 25-29 year-olds by education attainment for quarter 4 2009 and quarter 4 2012. The overall proportion of persons aged 25-29 years in employment dropped by two percentage points, from 71% in quarter 4 2009 to 69% in quarter 4 2012. The share of unemployment and those not economically active both increased over this time frame reaching 13% and 18% respectively by quarter 4 2012.

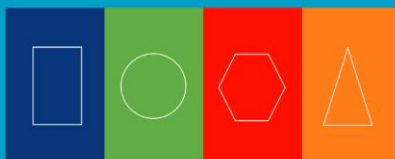


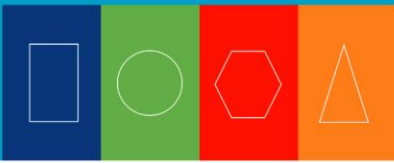
Table 8.2 Population aged 25-29 by Education Attainment and Economic Status (ILO), Quarter 4 2009 and Quarter 4 2012

	Q4 2009				Q4 2012			
	In Employment	Unemployed	Not Active	Total	In Employment	Unemployed	Not Active	Total
Third Level Degree or Above (NFQ Level 8+)	84%	6%	9%	100%	82%	6%	12%	100%
Third level Non-Degree (NFQ Level 6/7)	78%	11%	11%	100%	76%	9%	14%	100%
Leaving Cert and FET(NFQ Level 4/5)	68%	15%	17%	100%	66%	16%	18%	100%
Lower Secondary or Less (NFQ Level 3 or Less)	46%	20%	35%	100%	31%	26%	43%	100%
<b>Total</b>	<b>71%</b>	<b>12%</b>	<b>16%</b>	<b>100%</b>	<b>69%</b>	<b>13%</b>	<b>18%</b>	<b>100%</b>

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

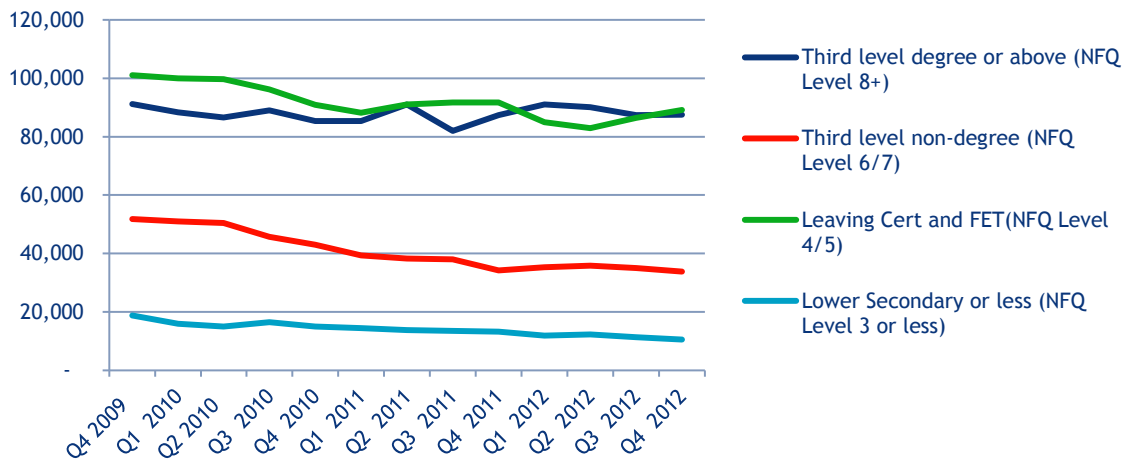
- **The higher the level of educational attainment, the more likely an individual was to be in employment in both time periods;** while the share of those with level 8+ qualifications who were in employment dropped by two percentage points between quarter 4 2009 and quarter 4 2012 to 82%, it was nonetheless the highest share in employment for all levels of education attainment
- Those with lower secondary education levels or less experienced the most significant percentage point decline in employment, dropping from 46% in quarter 4 2009 to 31% in quarter 4 2012, with the not active category taking on the majority of this decline
- **Conversely, the lower the level of educational attainment the greater the chances of being unemployed;** the share of those with at most lower secondary qualifications who were unemployed grew by six percentage points, but the share of those with level 8+ qualifications who were unemployed remained unchanged
- The share of level 8+ graduates who were classified as not active in the labour market increased by three percentage points; at 43% in quarter 4 2012, the share of those with lower secondary or less education classified as not active increased by eight percentage points
- Of those in the not active category, level 8+ graduates were more likely to be students than those with lower secondary or less education; two thirds of level 8+ graduates were students compared to 13% for those with at most lower secondary level education (a further 40% in this latter category were classified as being on home duties).

While overall shares may not have changed considerably when comparing the two points in time, an examination of trends for those in employment for each quarter from quarter 4 2009 by education (Figure 8.4) reveal a number of key findings:



- despite an overall drop in the number of persons aged 25-29 in employment from 279,000 in quarter 4 2009 to 227,000 in quarter 4 2012, the number of level 8+ graduates in employment remained relatively stable over the period examined
- in contrast, the number of persons in employment with third level non-degrees showed marked declines over the period; this again suggests that factors such as migration are affecting persons with lower than level 8+ qualifications more so than those with higher qualifications.

Figure 8.4 Persons in Employment Aged 25-29 by Education Attainment, Quarter 4 2009 - Quarter 4 2012



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

### Graduates by Gender

This section examines only those with level 8+ qualifications to ascertain the profile of recent graduates from higher education.

Table 8.3 details the gender differences of those with level 8+ qualifications in quarter 4 2012 by economic status and compares it to levels in quarter 4 2009.

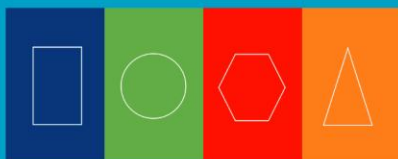


Table 8.3 Level 8+ Graduates aged 25-29 by Gender and Employment Status (ILO), Quarter 4 2009 and Quarter 4 2012

	Level 8+ Males			Level 8+ Females		
	Q4 2012	% of Total	% change Q4 2009 - Q4 2012	Q4 2012	% of Total	% change Q4 2009 - Q4-2012
In Employment	36,600	80%	-8%	50,900	84%	-1%
Unemployed	3,400	7%	-3%	2,800	5%	-17%
Not Active	5,600	12%	27%	7,200	12%	31%
<b>Total</b>	<b>45,600</b>	<b>100%</b>	<b>-4%</b>	<b>60,900</b>	<b>100%</b>	<b>1%</b>

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

- There are more females than males in the population aged 25-29 with a level 8+ qualification
- In quarter 4 2012, females had a higher share in employment when compared to males (84% for females; 80% for males); in addition, the share of females who were unemployed was lower than that of males (5%, compared to 7% for males)
- Both genders experienced a decline in the numbers of both employed and unemployed when compared with quarter 4 2009; these decreases were most pronounced for males in employment and unemployed females with declines of -8% and -17% respectively
- An increase in the number of level 8+ graduates classified as not active occurred for both genders (students are included in this category - for males, 73% of those categorised as not active were classified as students; for females, 56% of those in this category were students).

### Graduates by Year of Education Completion

Table 8.4 details the economic status of level 8+ graduates aged 25-29 years depending on how recently they completed their highest level of education. Over 60,000 of all level 8+ graduates in quarter 4 2012 had completed their highest level of education in the previous five years, with the remaining 43,000 having gained their highest level of education at least six years prior.

- In quarter 4 2012, 79% of those who completed their highest level of education in the previous five years were in employment, 6% were unemployed and a further 14% were not active in the labour market
- Those who had attained their qualifications over six years previously had a higher share in employment at 87% in quarter 4 2012 than more recent graduates
- When compared to quarter 4 2009, the share in employment remained unchanged for those who attained their highest level of education more than six years previously; for the more recent graduates, there was a drop of four percentage points for those in employment; this suggests that newer graduates are not as successful in gaining employment than was previously the case.

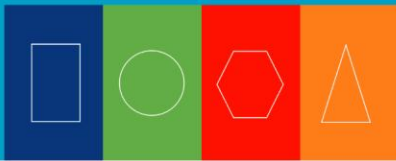


Table 8.4 Level 8+ Graduates aged 25-29 by Year of Highest Level of Education Completion and Employment Status (ILO), Quarter 4 2009 and Quarter 4 2012

	Quarter 4 2009		Quarter 4 2012	
	Previous Five Years	Previous Six Years +	Previous Five Years	Previous Six Years +
In Employment	83%	87%	79%	87%
Unemployed	8%	5%	6%	5%
Not Active	10%	8%	14%	8%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

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

### Graduates by Field of Learning

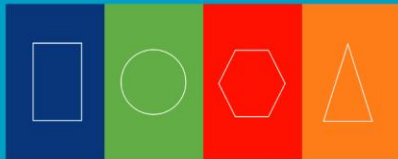
Table 8.5 compares the economic status of those aged 25-29 with level 8+ qualifications by field of education for the highest level of education attained for quarter 4 2009 and quarter 4 2012.

Table 8.5 Education Field of Those aged 25-29 with Level 8+ Qualifications in the Population and in Employment (%), Quarter 4 2009 and Quarter 4 2012

	Quarter 4 2009		Quarter 4 2012	
	Total	In employment (%)	Total	In employment (%)
Education	8,700	93%	9,500	93%
Humanities and Arts	10,200	82%	12,500	76%
Social sciences, Business & Law	42,000	88%	40,300	85%
Science, Maths & Computing	10,900	68%	10,000	77%
Engineering, Manufacturing & Construction	14,900	77%	13,100	77%
Health and Welfare	10,400	90%	11,700	90%
Services	3,200	85%	4,300	74%
Other	5,800	86%	3,600	72%
<b>Total</b>	<b>106,100</b>	<b>84%</b>	<b>105,000</b>	<b>83%</b>

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

Note: Agriculture & Veterinary were excluded from this analysis as numbers involved are too small to report



- Social sciences, business and law level 8+ graduates accounted for the highest share of graduates in both time periods
- The share in employment was highest for level 8+ graduates whose highest level of education was in an education-related field at 93% in quarter 4 2012, followed by health and welfare at 90%
- The share of persons employed remained unchanged or declined for the majority of fields excluding science, mathematics and computing where the share of graduate employment increased by nine percentage points
- The largest percentage point decline occurred for those in employment with level 8+ services qualifications; this masks an overall increase in the number of persons with level 8+ services qualifications from 3,200 in 2009 to 4,300 in 2012.

### 8.3.3 Graduates in Employment

This subsection looks at level 8+ graduates in employment by gender, occupation and sector.

#### Gender Distribution by Field of Learning

Table 8.6 details the gender breakdown of 25-29 year-old level 8+ graduates in employment.

Table 8.6 Education Field of those Aged 25-29 with Level 8+ Qualifications in Employment by Gender, Quarter 4 2009 and Quarter 4 2012

Education Fields	Quarter 4 2009		Quarter 4 2012	
	Males	Females	Males	Females
Education	21%	79%	16%	84%
Humanities & Arts	34%	66%	43%	57%
Social sciences, Business & Law	43%	57%	44%	56%
Science, Mathematics & Computing	62%	38%	55%	45%
Engineering, Manufacturing & Construction	77%	23%	81%	19%
Health & Welfare	19%	81%	13%	87%
Services	36%	64%	36%	64%
Total	44%	56%	42%	58%

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

Note: Agriculture & Veterinary excluded as numbers involved are too small to report

- In quarter 4 2012, males had higher shares of persons employed than females in just two education fields - engineering (at 81%) and science (at 55%); for all other education categories females held a higher share
- Females had particularly high shares of employment in education and health and welfare, both of which increased over the time frame examined



- The proportion of females in employment whose highest level of education is in science, mathematics and computing increased by seven percentage points between quarter 4 2009 and quarter 4 2012; this was as a result of both an increase in employment numbers and a decline in the number of males in employment with a qualification in this field.

## Occupational Distribution of Graduates

This subsection first examines the extent to which level 8+ graduates aged 25-29 years are employed in areas related to their education qualification. This is followed by an occupational breakdown of all level 8+ graduates, which is then contrasted with that of the total in employment for this age group (i.e. 25-29 years) to show the extent to which a level 8+ qualification affects the occupation in which one works.

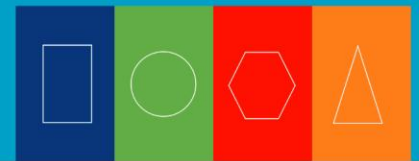
The SLMRU conducted an exercise which grouped occupations in to a relevant field of education group (see Appendix B for details on which occupations are included within each occupational field)<sup>40</sup>. These occupation fields were then compared to the education fields of the highest level of education for all level 8+ graduates in employment to ascertain the share of graduates employed in areas related to their education qualification (Table 8.7). This led to the following findings:

- those with education as their highest qualification attained were most likely to be employed in education-related occupations; their share increased by thirteen percentage points between quarter 4 2009 and quarter 4 2012 from 75% to 88%
- science, mathematics and computing level 8+ graduates had the lowest share of persons employed in occupations related to their field of education qualifications at 39% in quarter 4 2012 (a further 25% are in social science, business and law (in occupations such as economists and statisticians) and 14% in engineering)
- when compared to quarter 4 2009, the share of science, mathematics and computing level 8+ graduates working in a related field declined by fifteen percentage points - the largest decline amongst all fields of learning.

Table 8.7 Share of Level 8+ Graduates Aged 25-29 in Employment in Occupation Fields Related to Their Qualification, Quarter 4 2009 and Quarter 4 2012

	Q4 2009	Q4 2012
Education qualification (working in education)	75%	88%
Humanities & Arts qualification (working in humanities/arts)	*	*
Social Sciences, Business & Law qualification (working in social science etc.)	80%	80%
Science, Mathematics & Computing qualification (working in science etc.)	54%	39%
Engineering, Manufacturing & Construction qualification (working in engineering etc.)	51%	47%

<sup>40</sup> 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. It should be borne in mind that the analysis is approximate and intended as an indicator of skills matching.



	Q4 2009	Q4 2012
Agriculture & Veterinary qualification (working in agriculture etc.)	*	*
Health & Welfare qualification (working in health/welfare)	77%	76%
Services qualification (working in services)	53%	57%

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

\* Numbers involved are too small to report

Table 8.8 details the occupational distribution of 25-29 year-olds in employment for both level 8+ graduates and the total in employment for quarter 4 2009 and quarter 4 2012.

Table 8.8 Occupational Breakdown of Those in Employment Aged 25-29 by Education Attainment, Quarter 4 2009 and Quarter 4 2012

	Q4 2009		Q4 2012	
	Level 8+ Grads	All Others in Employment	Level 8+ Grads	All Others in Employment
Managers, Directors and Senior Officials	5,000	8,300	4,300	5,500
Professional Occupations	41,400	10,000	39,500	5,800
Associate Professional & Technical Occupations	15,400	19,300	17,500	13,400
Administrative and Secretarial Occupations	11,300	30,100	9,500	17,300
Skilled Trades Occupations	4,200	33,500	3,800	22,800
Caring, Leisure and Other Service Occupations	3,300	18,600	3,100	15,000
Sales and Customer Services Occupations	4,700	21,700	5,000	23,900
Process, Plant and Machine Operatives	1,300	13,300	1,600	11,900
Elementary Occupations	4,600	32,700	3,300	24,100
<b>Total</b>	<b>91,200</b>	<b>187,500</b>	<b>87,500</b>	<b>139,700</b>

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

- The professional occupational group accounted for the highest number of level 8+ graduates in employment in quarter 4 2012 with little change occurring since quarter 4 2009
- Combined, managers, professionals and associate professionals accounted for 61,300 making up 70% of all level 8+ graduates in employment in quarter 4 2012 compared to 18% for all others in employment
- While employment levels have dropped for managers and professionals since quarter 4 2009, associate professional employment for level 8+ graduates increased by 14%; when examining the

intervening years this increase has been evident since quarter 3 2011 when employment levels stood at 13,000

- Employment of level 8+ graduates in sales and customer service occupations also increased since quarter 4 2009, although this masks a decline since a peak of 8,000 in quarter 3 2011
- Employment levels declined across all occupational groups for those with less than level 8+ qualifications, excluding sales and customer services occupations which increased by 2,000
- While employment levels of level 8+ graduates declined for most occupational groups, it was not as significant as for those with lower levels of education attainment.

## Sectoral Employment of Graduates

Table 8.9 compares the distribution of level 8+ graduates by sector with all others aged 25-29 years in employment.

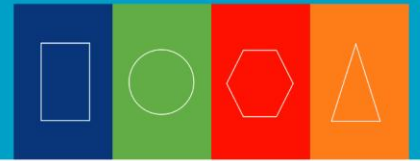
Table 8.9 Sectoral Employment of Those aged 25-29 by Education Attainment, Quarter 4 2009 and Quarter 4 2012

Sector	Q4 2009		Q4 2012	
	Level 8+ Grads	All others in employment	Level 8+ Grads	All others in employment
Agriculture, Forestry & Fishing	*	3,500	*	4,000
Industry	11,300	26,200	8,800	19,100
Construction	*	16,500	*	9,900
Wholesale & Retail Trade; Repair of Motor Vehicles & Motorcycles	7,800	36,200	8,600	32,000
Transportation & Storage	*	8,600	*	6,000
Accommodation & Food Service Activities	4,000	20,600	4,300	16,000
Information & Communication	8,000	5,200	7,900	3,800
Financial, Insurance & Real Estate Activities	12,100	13,300	9,600	7,400
Professional, Scientific & Technical Activities	11,600	7,100	12,000	4,000
Administrative & Support Service Activities	*	7,100	*	6,000
Public Admin & Defence; Compulsory Social Security	3,300	8,800	3,000	5,000
Education	13,200	5,400	13,000	2,500
Human Health & Social Work Activities	11,100	16,100	11,800	12,200
Other NACE Activities	3,600	12,900	4,000	11,700
<b>Total</b>	<b>91,300</b>	<b>187,500</b>	<b>87,500</b>	<b>139,700</b>

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

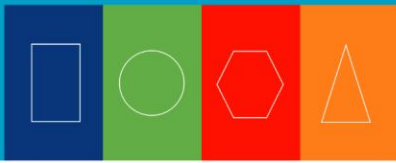
\* Numbers involved are too small to report

- Employment levels varied for level 8+ graduates across sectors between quarter 4 2009 and quarter 4 2012; while some sectors, such as wholesale/retail and human health, increased



marginally, declines occurred in most other sectors particularly in industry and financial activities with declines of 22% and 21% respectively

- For all others in employment, all sectors experienced a decline in employment levels excluding agriculture; this was most notable for those employed in construction, financial and professional activities, public admin and education
- In quarter 4 2012, the education and professional activities sectors had the highest share of level 8+ graduates aged 25-29 years at 84% and 75% respectively; in contrast, wholesale and retail trade and accommodation and food service activities had the lowest share of level 8+ graduates with a share of 21% each.



## Chapter 9 Other Education and Training Provision

### Key Points

- There were approximately 4,600 awards made for courses at independent, private third level colleges in Ireland in 2011; of these, 3,900 were major/aligned awards, with the remainder made up of minor awards
- Of the 3,900 major/aligned awards, over 2,100 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 almost 2,300 qualifications; of these almost 2,000 were in the field of accountancy and finance

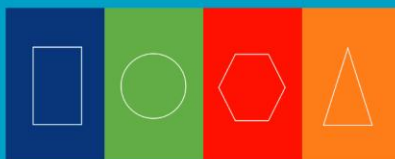
### 9.1 Introduction

Other 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 other education and training 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. Thirdly, the distinction between public and private education and training provision is becoming increasingly blurred. For example, some privately delivered education or training may be at least partly publicly funded; alternatively, some privately sourced education and training may be accredited by the State higher education institutions and these numbers are already captured in the data outlined in earlier sections of this report (e.g. some awards data from the Irish Management Institute is included in the UCC data; awards data from the Institute of Bankers is included in UCD data). To avoid any double counting any data already captured in chapters 5-7 of this report has been excluded from the analysis here. Finally, it is not possible to make year-on-year comparisons as data received each year is not always from the same providers/awarding bodies.

For these reasons, therefore, the numbers in this chapter do not reflect the full extent of private education and training in Ireland.

Despite the aforementioned limitations, the data discussed in this chapter attempts to capture the number of individuals who obtained a qualification via education and training pathways outside of the state sector (and excluding private providers captured in the data already presented in Chapters 5-7) in 2011. 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 through professional bodies (e.g. Irish Tax Institute).



## 9.2 Private Sector Higher Education Graduates

Private independent colleges (e.g. Dublin Business School, Hibernia College) offer programmes that are accredited by one or more awarding bodies. Such awarding bodies include, among others, QQI, Irish universities<sup>41</sup> and/or foreign universities. Appendix C1 lists the private, independent education and training providers whose awards are included in this section.

Table 9.1 provides the number of higher education awards made for programmes completed at private, independent colleges; the data refers to awards made by QQI-HETAC, the Irish Management Institute (IMI) and the Open University; all awards are either on or aligned to the NFQ.<sup>42</sup>

- Of the 3,900 major/aligned awards made in 2011,
  - over 2,100 (or 55%) were at level 8, mostly in social science, business and law or education
  - level 6/7 had the second highest number of major awards, which at over 1,300 accounted for one third of the total
  - postgraduate level awards accounted for 11%; these were almost entirely made at level 9, also mostly in social science, business & law
- Minor and partial awards totalled 689 in 2011; almost a half were in social science, business and law; those in engineering/manufacturing and education made up a further fifth each.

Table 9.1 Private Sector Higher Education Awards by Type, Field and Level, 2011

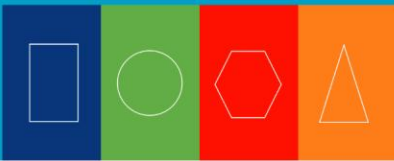
Major Awards (field)	Major/Aligned Awards				Minor & Partial Awards	Grand Total
	NFQ 6/7	NFQ 8	NFQ 9/10	Total	NFQ 6-10	NFQ 6-10
Education	211	803	40	1,054	130	1,184
Humanities & Arts	95	180	72	347	29	376
Social sciences, Business & Law	399	906	166	1471	297	1,768
Science, Mathematics & Computing	142	36	62	240	0	240
Eng., Manufacturing & Construction	65	33	3	101	150	251
Health and Welfare	349	171	83	603	14	617
Services	1	0	0	1	69	70
General	82	6	0	88	0	88
<b>Total</b>	<b>1,344</b>	<b>2,135</b>	<b>426</b>	<b>3,905</b>	<b>689</b>	<b>4,594</b>

Source: QQI; IMI\* (refers to 2010 data)

Note: Many awards made by IMI are accredited by Irish universities; IMI awards in the table refer to other awards (e.g. an IMI Certificate)

<sup>41</sup> 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.

<sup>42</sup> Aligned awards were made by UK universities for qualifications that have been aligned to the NFQ by level; these qualifications include diplomas, graduate diplomas, honours bachelor degrees, master degrees etc.



### 9.3 Professional Institutes and Other Education and Training Providers

This section details the number of awards made to learners studying through professional institutes (e.g. Irish Tax Institute) which act as their own awarding bodies; not included in this section are professional institutes (e.g. Institute of Bankers) whose awards are made by Irish higher education institutes - these have been included either in earlier chapters of this report or in section 9.2.

Although some of the awards presented in this section are either placed on or aligned with the National Framework of Qualifications (e.g. ACCA) or the UK equivalent (Qualifications and Credit Framework for England and Northern Ireland), many others are not. Therefore, the data in this section has been categorised, in consultation with the data providers, as undergraduate level or postgraduate level.

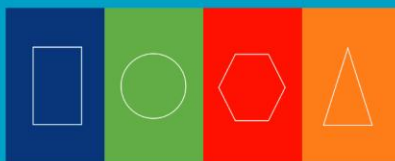
The data in Table 9.2 details the number of qualifications made to those studying through professional institutes.

- In 2011, almost 2,300 individuals gained a qualification through professional bodies
- almost 2,000 (or 87%) of these qualifications were in accountancy and finance, predominantly at postgraduate level; the remaining 300 (or 13%) were in the other business and law category; these qualifications were spread equally between undergraduate and postgraduate levels.

Table 9.2 Qualifications from Professional Institutes, 2011/2012

Subjects	Under-graduate	Post-graduate	Total
Other Business & Law	152	152	304
Accountancy & Finance	63	1,906	1,969
<b>Total</b>	<b>215</b>	<b>2,058</b>	<b>2,273</b>

Source: Irish Auditing and Accounting Supervisory Authority (IAASA), Irish Tax Institute, Kings Inns, IPAV



## Chapter 10 Irish Students Abroad

### Key Points

- There were almost 19,000 Irish students enrolled in higher education abroad in 2010 - 8% more than in 2009
- More than three quarters of Irish students abroad were enrolled on Tertiary Type A programmes of study (honours bachelor degrees/master degrees)
- The vast majority (87%) of Irish students abroad opted to study in the UK in 2010
- The number of Irish students who accepted a place to study in the UK (UCAS acceptors - similar to the CAO in Ireland) declined sharply over the two-year period 2010-2012, with approximately 1,000 fewer Irish UCAS acceptors in 2012 compared to 2010
- Almost 1,000 of the Irish UCAS acceptances were in the health, vet and agriculture field of learning, mostly in subjects allied to medicine (e.g. nursing, pharmacy, nutrition)
- Approximately 6,500 Irish-domiciled students graduated from UK higher education institutions in 2012
- Irish-domiciled graduates from UK institutions in 2012 were primarily distributed across three broad fields: social studies, business and law; health, vet and agriculture; and technology related subjects
- The number of students from Irish HEIs participating in the ERASMUS programme reached approximately 2,500 in 2010/11 - the highest number to date
- The most popular destinations for Irish ERASMUS students in 2010/11 were: France (26% of the total), Spain (18%) and the UK (14%); students going to either Germany or Austria made up a further 13%
- In Ireland, the share of ERASMUS students as a share of graduates was 4.3%, which is slightly below the 4.55% European average; however, it lags considerably behind countries such as Spain and Finland, each with a share of at least 10%.

### 10.1 Introduction

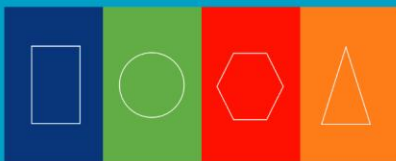
This chapter provides an overview of the Irish-domiciled students at higher education institutions (HEIs) outside of the Republic of Ireland. Although data is limited in terms of the detail available, the aggregate data is sufficient to provide information regarding country and broad level of study.

The OECD defines international students as either students who are not permanent/usual residents of their country of study or alternatively as students who obtained their prior education in a different country<sup>43</sup>. Section 10.2 looks at the number of Irish-domiciled students enrolled in third level education in other OECD countries. Data on Irish-domiciled students in higher education in the

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<sup>43</sup> International student data excludes numbers relating to those undertaking shorter, temporary courses as part of international exchange programmes such as ERASMUS.





United Kingdom is available in greater detail from additional sources and is examined in Section 10.3: data from the UK based Universities and Colleges Admission Service (UCAS)<sup>44</sup> provides an overview of the number of Irish-domiciled students who accepted an offer of a place to study at HEIs in the UK; data provided by the Higher Education Statistics Authority (HESA) shows the number of Irish students who graduated from higher education programmes in the UK. The final section of this chapter presents the number of students enrolled in Irish HEIs who participated in the ERASMUS study abroad programme.

## 10.2 Irish Students in Other OECD Countries

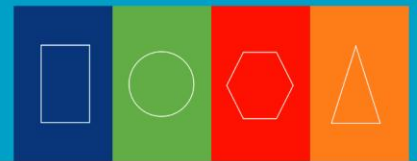
Students who leave their country of origin and move to another country for study purposes are classified as international students. Table 10.1 shows the number of international students, domiciled in Ireland but enrolled in third level courses abroad. In 2010,

- there were almost 19,000 Irish students abroad, which is 8% more than the 17,553 observed for 2009
- the United Kingdom is by far the most popular destination for Irish students opting to study abroad, accounting for 87% of all Irish student enrolments abroad
- the United States accounted for 6% (1,201 enrolments), while other Anglophone countries combined (e.g. Australia, Canada and New Zealand) and Germany each made up a further 2% of enrolments.
- Programme type:
  - more than three quarters of Irish students abroad were enrolled on Tertiary Type A programmes of study (honours bachelor degrees/master degrees)
  - 12% were enrolled on Tertiary Type B programmes (e.g. ordinary bachelor degree); 6% were on advanced research programmes.

Table 10.1 Irish Student\* Enrolments in OECD Countries by Programme Type and Destination Country, 2010

Country	Tertiary A	Tertiary B	Advanced Research	Tertiary - unknown	Total
United Kingdom	13,229	2,216	1,024	-	16,469
USA	-	-	-	1,201***	1,201
Germany	296	-	-	-	296
Australia	210	3	31	-	244
Hungary	181	-	-	-	181
Canada	87	9	18	-	114
Spain	55	10	5	-	70

<sup>44</sup>UCAS is the organisation responsible for managing applications to higher education courses in the UK and is similar to the CAO in Ireland.



Country	Tertiary A	Tertiary B	Advanced Research	Tertiary - unknown	Total
Netherlands	60	-	-	-	60
New Zealand	33	5	17	-	55
Others**	142	8	35	-	185
<b>Total</b>	<b>14,293</b>	<b>2,251</b>	<b>1,130</b>	<b>1,201</b>	<b>18,875</b>

Source: OECD online database

\*Excludes Ireland

\*\*The 'Others' category includes Sweden, Belgium, Switzerland, Denmark, Slovak Republic, Portugal, Iceland, Luxembourg.

\*\*\* While data by level is unavailable for the USA, it is estimated that approximately one third of Irish students in the USA follow an undergraduate programme, a further third follow a postgraduate programme, with the remaining students on other types of courses (including non-degree)<sup>45</sup>.

## 10.3 Irish students in the United Kingdom

### 10.3.1 Inflows - UCAS Acceptances

In 2012, over 2,000 Irish-domiciled students accepted a place in higher education institutions in the UK (Figure 10.1). Over the period 2008-2010, the number of Irish-domiciled acceptors had been increasing gradually and peaked at almost 3,000 in 2010. However, numbers have declined sharply since then, with a fall of 22% between 2010 and 2011 and a further 14% drop between 2011 and 2012. All told, there were approximately 1,000 fewer Irish-domiciled UCAS acceptors in 2012 compared to 2010 when acceptances had reached their highest point since 2005. These decreases are possibly due to the introduction of increased tuition fees at some UK higher education institutions.

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<sup>45</sup> "International Students by Academic Level and Place of Origin, 2011/12." *Open Doors Report on International Educational Exchange*. Retrieved from <http://www.iie.org/Research-and-Publications/Open-Doors/Data/International-Students/By-Academic-Level-and-Place-of-Origin/2011-12>

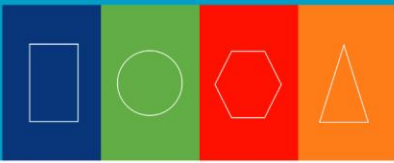
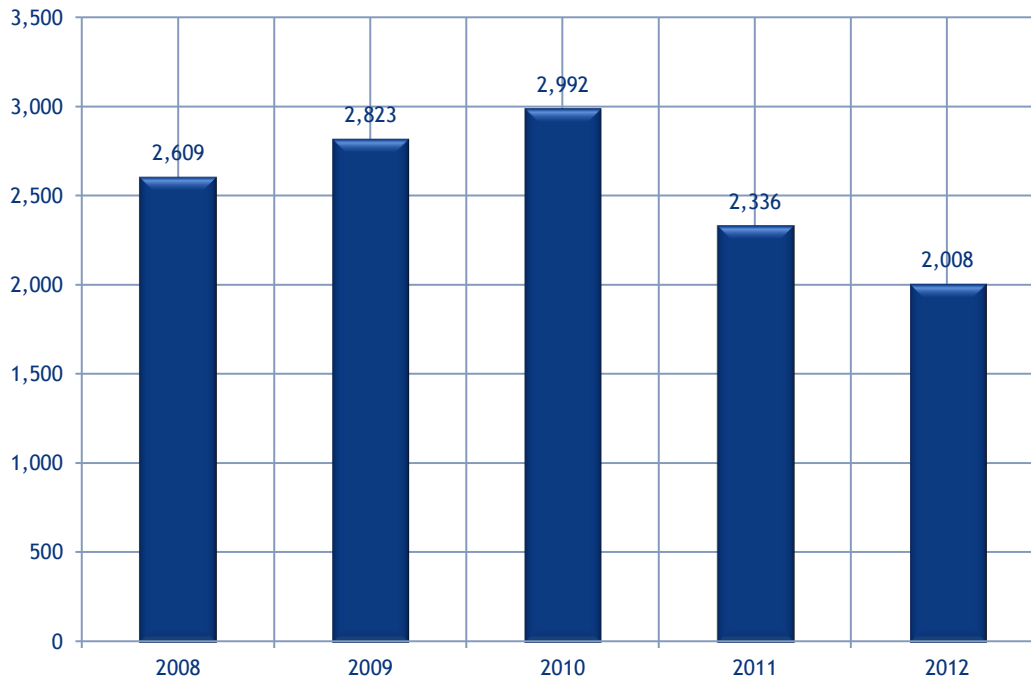


Figure 10.1 Republic of Ireland Domiciled UCAS Acceptors, 2008-2012



Source: UCAS

Table 10.2 shows the number of Irish students in 2011 and 2012 accepting a place to study in UK higher education institutions by discipline.

- Almost 950 Irish students accepted a place to study in health, vet and agriculture programmes in the UK in 2012, mostly in subjects allied to medicine (e.g. nursing, pharmacy, nutrition)
- The 'other' category, which includes, business and arts subjects, comprised 625 students
- Technology related subjects accounted for more than 400 students in 2012, mostly for science and computing related courses
- There were declines across all disciplines between 2011 and 2012. Social science, business and law had the largest absolute decline in numbers, with 82 fewer acceptors in 2012 compared to 2011.

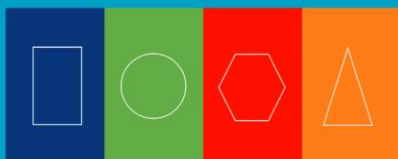


Table 10.2 Republic of Ireland Domiciled UCAS Acceptors by Discipline, 2011-2012

	2011	2012	2011-12 % change
Engineering & Technology	142	108	-24%
Architecture, Building & Planning	61	25	-59%
Science & Computing	318	302	-5%
<b>Total Technology</b>	<b>521</b>	<b>435</b>	<b>-17%</b>
Medicine & Dentistry	48	48	0%
Subjects Allied to Medicine	899	828	-8%
Agriculture and Vet	93	72	-23%
<b>Total Health, Vet &amp; Agriculture</b>	<b>1,040</b>	<b>948</b>	<b>-9%</b>
Arts, Humanities & Combined	362	313	-14%
Education	53	34	-36%
Social Science, Business & Law	360	278	-23%
<b>Total Other</b>	<b>775</b>	<b>625</b>	<b>-19%</b>
<b>Overall Total</b>	<b>2,336</b>	<b>2,008</b>	<b>-14%</b>

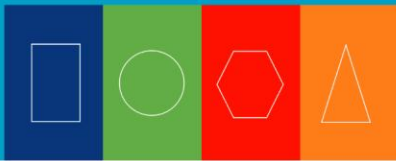
Source: UCAS

- Age & gender profile: in 2012, 63% of Irish-domiciled UCAS acceptors were aged 20 or under; 37% were aged 21 or over. Almost two thirds were female, over one half of whom were studying subjects allied to medicine
- Country of study: more than a half of Irish-domiciled students accepted a place at a higher education institution in England; approximately one fifth accepted a place in Northern Ireland and a further fifth, a place in Scotland. The remaining 7% acceptances were for HEIs in Wales.

### 10.3.2 Outflows - Irish Domiciled Graduates in the UK

Approximately 6,500 Irish-domiciled students graduated from UK higher education institutions in 2012 (Table 10.3).

- The number of graduates increased by over a fifth when compared to 2008, although it has remained almost unchanged since 2011
- With regard to the field of learning, Irish-domiciled graduates in 2012 were primarily distributed across the following subject areas:
  - social studies, business and law, which had the highest number of Irish-domiciled graduates (almost 1,700 graduates, or 26% of the total)
  - health, vet and agriculture, where graduates made up almost a quarter of the total (1,535 students)
  - technology related subjects (science, computing, engineering and technology combined), accounting for 1,305 students, or a fifth of the total.
- Although there was no change in the overall number of graduates between 2011 and 2012, the numbers of graduates in fields such as health, vet and agriculture, science and computing, and social studies, business and law grew more strongly (by 7%-8% each)



- In contrast, although the numbers involved are smaller, there were relatively sharp declines in engineering and technology (-24%, or 155 fewer graduates) and construction related subjects (a -28% fall, or 120 fewer graduates)
- Between 2008 and 2012, the overall number of graduates increased by a fifth; the largest growth (+69%) was for social studies, business and law, where there were an additional 685 graduates.

Table 10.3 Irish Domiciled 3rd Level Graduates in UK Higher Education (All Levels) 2008-2012

Discipline	2008	2009	2010	2011	2012	% Change 2008-12	% Change 2010-11
Health, Vet & Agriculture	1,265	1,455	1,430	1,415	1,535	21%	8%
Science & Computing	725	685	690	745	805	11%	8%
Engineering & Technology	450	455	490	655	500	16%	-24%
Architecture, Building & Planning	395	455	485	430	310	-22%	-28%
Social Studies, Business & Law	990	1,100	1,050	1,565	1,675	69%	7%
Arts, Humanities & Combined Studies	685	630	695	770	755	10%	-2%
Education	810	825	1,015	865	850	5%	-2%
Total	5,320	5,605	5,855	6,445	6,450	21%	0%

Source: HESA (UK)

## 10.4 Erasmus Students

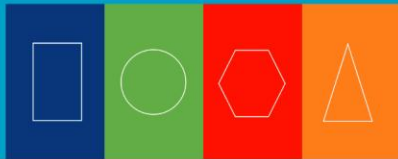
### 10.4.1 - Outgoing from Ireland

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<sup>46</sup>. 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 2006/07-2010/11 is detailed in Table 10.4.

- The number of Erasmus students from Ireland has increased every year since 2007/08; the 19% increase observed in 2007/08 was due largely to the introduction of the company work placement programme as part of ERASMUS in 2007/08; however, there have been continued increases since then, reaching its highest number to date in 2010/11 with 2,500 Erasmus students from Irish higher education institutions (HEIs) going abroad

<sup>46</sup> ERASMUS participating institutions are not confined to the EU and include those in Norway, Iceland and Turkey.



- The most popular destinations for Irish students in 2010/11 were: France (26% of the total), Spain (18%) and the UK (14%); students going to either Germany or Austria made up a further 13%
- Almost three quarters of outgoing Irish students went abroad for study; the remainder, on work placements<sup>47</sup>
- The UK was the only country where the majority of ERASMUS students went on work placements (72%) rather than study placements (28%); in contrast, 85% of those going to France, 75% of those going to Spain and 78% of those going to Germany went on study placements.

Table 10.4 Outgoing ERASMUS Students from Ireland by Destination Country, 2006-2011

Destination Country	2006/07	2007/08*	2008/09*	2009/10*	2010/11*
France	439	464	473	514	649
Spain	271	324	316	391	451
UK	43	158	224	238	349
Germany & Austria	253	245	252	251	329
Netherlands	71	68	86	121	144
Sweden	71	79	76	97	115
Italy	94	102	84	99	74
Others**	353	456	401	514	400
<b>Total</b>	<b>1,524</b>	<b>1,817</b>	<b>1,836</b>	<b>2,128</b>	<b>2,511</b>

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 and Turkey.

### 10.4.2 ERASMUS students - European comparison

Figure 10.2 shows ERASMUS students in 2010/11 as a proportion of graduates, by country.

- On average Erasmus students accounted for 4.55% of all graduates across Europe
- The share for Ireland, at 4.3%, is slightly below average, but lags considerably behind countries such as Spain and Finland, each with a share of at least 10%
- Few countries, among them the UK and Romania, had lower participation rates than Ireland's in 2010/2011
- Nonetheless, there were increases compared to previous years, when Ireland recorded shares of 3.06% in 2008/09 and 3.7% in 2009/10.

<sup>47</sup> 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.

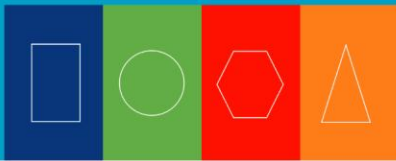
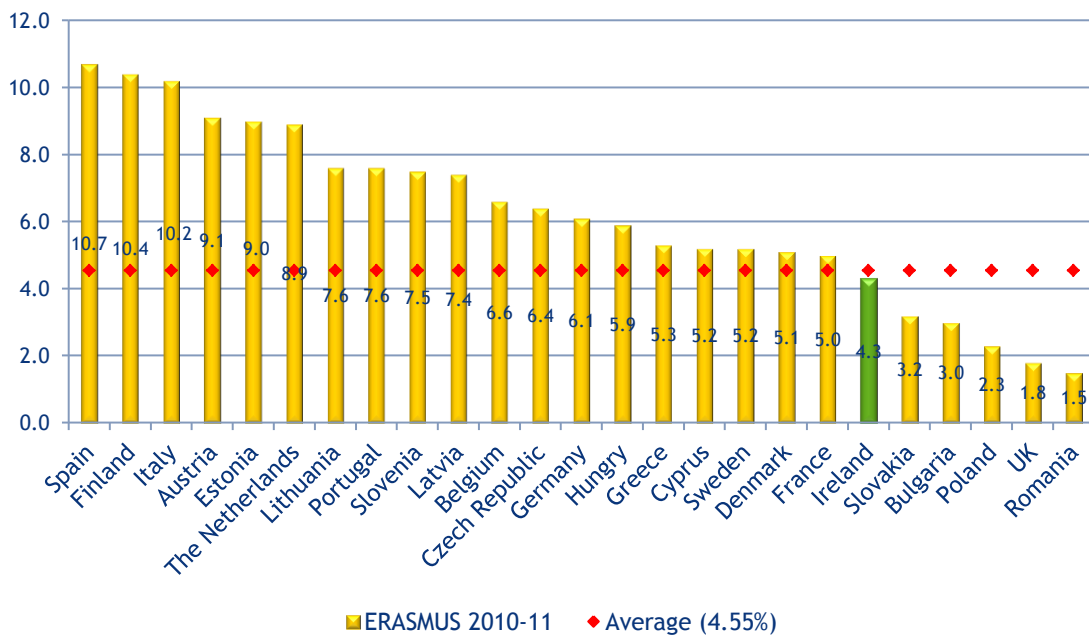
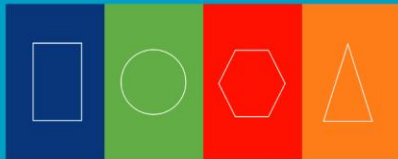


Figure 10.2 ERASMUS students as a share of graduates for selected EU countries, 2010/11



Source: European Commission (ERASMUS statistics)

- Compared to other countries, students from Irish HEIs tend to spend longer periods abroad: the overall average duration of ERASMUS stays in 2010/11 was 6 months; the average duration for Irish students, however, was 6.7 months; only students from Spain and the UK (at 7.5 months and 7 months respectively) tended to have longer duration stays.



## Chapter 11 Formal Education: the Adult Population

### Key Points

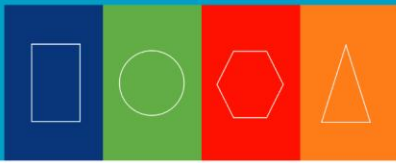
- Approximately 127,000 persons aged 25+ participated in formal education activities in quarter 4 2012, representing over 4% of the adult population
- Between quarter 4 2007 and quarter 4 2012, the number of adult learners receiving formal education increased by almost a fifth (or 20,500 additional learners)
- In quarter 4 2012, female formal education participants outnumbered males, with the 67,000 females making up a 53% share of the total; nonetheless, the gender gap has narrowed, with the share of males growing from 39% to 47% over the five-year period
- With participation rates of 4% each, males and females were almost equally likely to participate in formal education in quarter 4 2012
- In quarter 4 2012, the likelihood of participating in formal education decreased with age: at 10%, the participation rate of 25-34-year olds in receipt of education and training was more than double that of 35-44-year olds
- The higher an adult's educational attainment, the greater the likelihood of participating in formal education: those with at least an honours bachelor degree had a participation rate of 7.5%, compared to 1% for those with at most a Junior Certificate (or equivalent)
- Almost three quarters of adults in receipt of formal education were participating in third level education programmes, one third of which were in the field of social science, business and law
- Formal education participants were comprised almost equally of those in employment (58,000 persons, of which 40,000 were in full-time employment) and those who were economically inactive (59,000 persons); combined they made up 91% of the 127,000 formal education participants in quarter 4 2012.

### 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 (CSO) captures the number of people who stated they had engaged in formal education and training in the four weeks prior to the survey. By focusing on those aged 25 years and over (the age by which most individuals have completed their initial education), data on those reporting having recently been a student or





apprentice provides an indication of the extent to which the **adult population** in Ireland participates in formal education activities.

The data in this section is based on data from the QNHS in quarter 4 2012; for comparison purposes data from quarter 4 2007 is also included. Note that some of the learner data captured in this section was also included in the enrolment and awards/graduation data in Chapters 2-9 (which included all age-groups).

Using QNHS data, the CSO (2010)<sup>48</sup> published findings on lifelong learning which included data on the share of adults receiving formal education. However, the data presented in the CSO report 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). Therefore the findings from the CSO (2010) publication will differ from those reported here.

## 11.2 Population Aged 25+ in Receipt of Formal Education

Figure 11.1 shows the number of adults aged 25 and over who participated in formal education activities in quarter 4 2007 and quarter 4 2012.

- Of the total adult population of 3 million people in quarter 4 2012, over 127,000 participated in formal education activities in the four weeks prior to the survey<sup>49</sup>
- When compared to quarter 4 2007, the number of adults in receipt of formal education grew by almost a fifth (or 20,500 additional learners)
- The formal education participation rate for the adult population in quarter 4 2012 was 4.2%, slightly higher than the 3.7% rate observed in the same period in 2007<sup>50</sup>.

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<sup>48</sup> CSO (2010) *QNHS, Quarter 3 2008 - Lifelong Learning*

<sup>49</sup> Numbers include those who stated they were in formal education and training but were on holiday.

<sup>50</sup> This compares to the lifelong learning participation rates of 6.7% and 25% cited by Eurostat (2011) and the CSO (2010); the Eurostat data is higher due to the inclusion of non-formal education 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 education in the data and (b) a difference in the length of the reference periods.

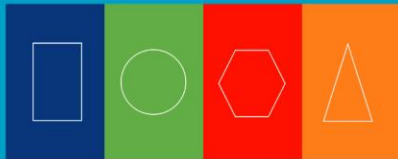
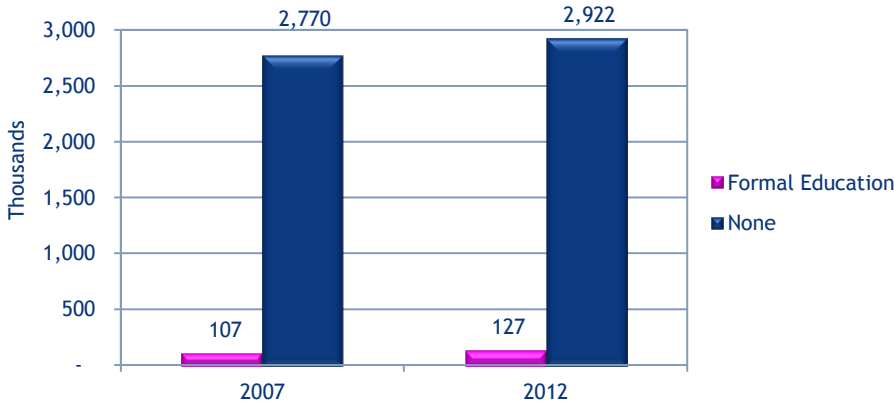


Figure 11.1 Population (25+ years) by Formal Education Participation (000s), Quarter 4 2007 & Quarter 4 2012



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

### 11.3 Gender Profile of Adult Recipients of Formal Education

Figure 11.2 shows the distribution of adult formal education participants for quarter 4 2012.

- There were more females than males in receipt of formal education: of the 127,000 formal education participants in quarter 4 2012, 67,000 were female, 60,000 were male, making up 53% and 47% shares respectively
- Although there were increases in the numbers of both male and female participants when compared to quarter 4 2007, the growth in the number of males was considerably higher: there was a 40% increase in the number of males compared to 5% for females; this resulted in an absolute increase of more than 17,000 additional male learners and approximately 3,000 females
- Despite this increase in male participation, females continued to outnumber males, making up the larger share of formal education participants in both quarter 4 2007 and quarter 4 2012; nonetheless, the gender gap has narrowed, with the share of males growing from 39% to 47% over the five-year period
- Males (at 4.1%) and females (at 4.3%) were almost equally likely to participate in formal education activities in quarter 4 2012; when compared to quarter 4 2007, the male participation rate increased (up from 3%) although there was little change for females, which declined slightly (down from 4.4%).

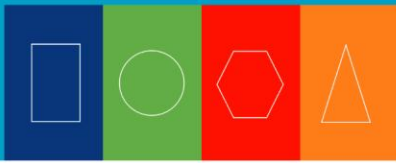
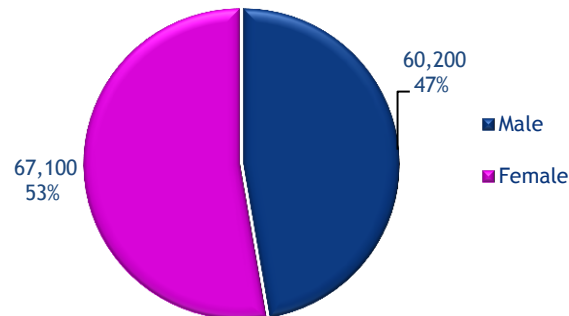


Figure 11.2 Formal Education Participation by Gender, Quarter 4 2012



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

#### 11.4 Age Profile of Adult Recipients of Formal Education

The age profile of formal education recipients in quarter 4 2012 is presented in Figure 11.3.

- Of the 127,000 formal education participants, the majority (80%) were aged between 25-44 years: 55% (70,000 persons) were aged 25-34 years; 25% (31,000 persons), 35-44 years; 14% (18,000) were 45-54 years and 6% (8,000) were 55 years or more
- There were increases in the number of participants across all age groups when compared to quarter 4 2007: the strongest growth in absolute terms was for the 35-44 year-old age cohort, where numbers rose by almost 8,000 (a one third increase); this was followed by an increase of almost 6,000 (+10%) in the number of 25-34 year-olds
- Over the period quarter 4 2007 to quarter 4 2012, the relative distribution of formal education participants shifted slightly towards older age cohorts; the share of 25-34 year-olds declined from 60% to 55%, while there were increases of between one and three percentage points for each of the older categories.

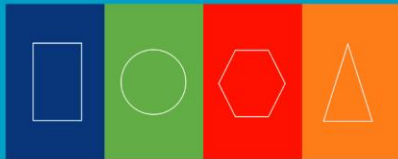
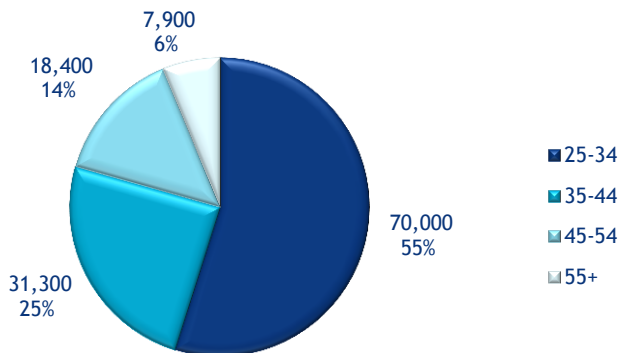


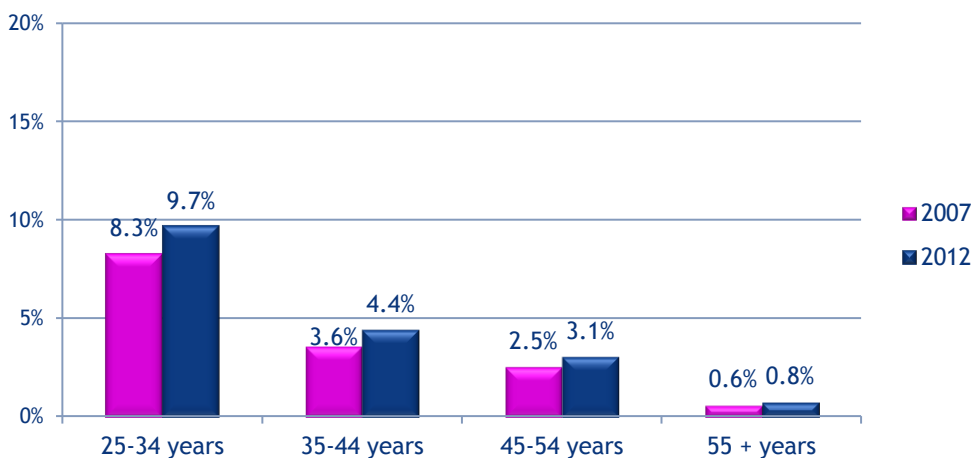
Figure 11.3 Formal Education Participation by Age Group, Quarter 4 2012



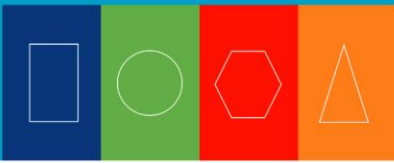
Source: SLMRU (FÁS) analysis of CSO (QNHS) data

- The likelihood of participating in formal education decreases with age (Figure 11.4):
  - at almost 10%, the share of 25-34-year olds (70,000 persons) in receipt of education and training was more than double that of 35-44-year olds (over 4% or 31,000 persons) and more than triple that of 45-54 year-olds (3% or 16,700)
  - Fewer than 1% (7,900 persons) of those aged 55 years or over had been in receipt of education and training in the preceding four weeks
- The formal education participation rate amongst 25-34 year-olds grew by almost 1.5 percentage points, but changed little for all other age categories.

Figure 11.4 Formal Education Participation Rates by Age, Quarter 4 2007 and Quarter 4 2012



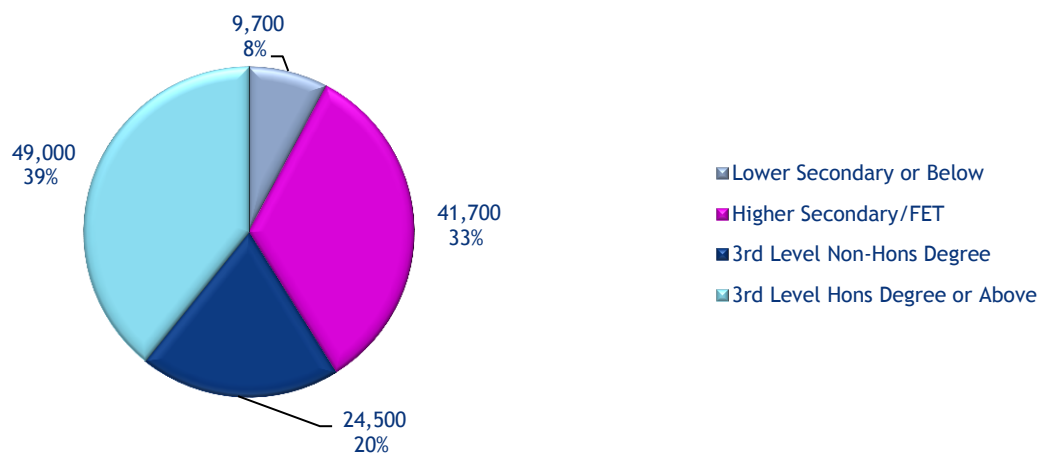
Source: SLMRU (FÁS) analysis of CSO (QNHS) data



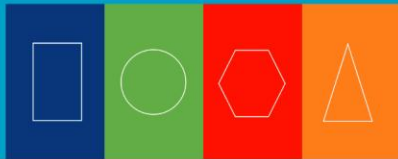
## 11.5 Education Profile of Adult Recipients of Formal Education

- Of the 127,000 formal education participants in quarter 4 2012, almost 125,000 stated their highest level of educational attainment. Of these, as shown in Figure 11.5:
  - almost 74,000 were third level graduates, representing over one half of the total (59%); the larger share of these persons had attained at least an honours bachelor degree
  - approximately 42,000 persons (33%) had completed higher secondary or further education and training (FET),
  - almost 10,000 persons (or 8%) had attained, at most, lower secondary education qualifications
- When compared to quarter 4 2007, the number of formal education participants increased in almost all educational attainment categories, except for the lower secondary education or less category (where numbers remained almost the same)
  - the largest increase was for those holding third level qualifications, with numbers growing by 28% (or by in excess of 16,000)
  - the number of formal education participants with higher secondary/FET qualifications grew by approximately 7,000 (+19%)
- Over the period quarter 4 2007 to quarter 4 2012, the distribution of formal education participants by highest level of education shifted further towards third level graduates:
  - there were declines in the share of those with secondary qualifications (down from 10% to 8%) and those with higher secondary/FET qualifications (from 34% to 33%)
  - in contrast, the share of third level graduates grew from 56% to 59%; within this group, the largest growth in share was for third level non-degree graduates, which made up 17% of all formal education participants in quarter 4 2007, but 20% of the total in quarter 4 2012.

Figure 11.5 Formal Education Participation by Highest Level of Education Attained, Quarter 4 2012

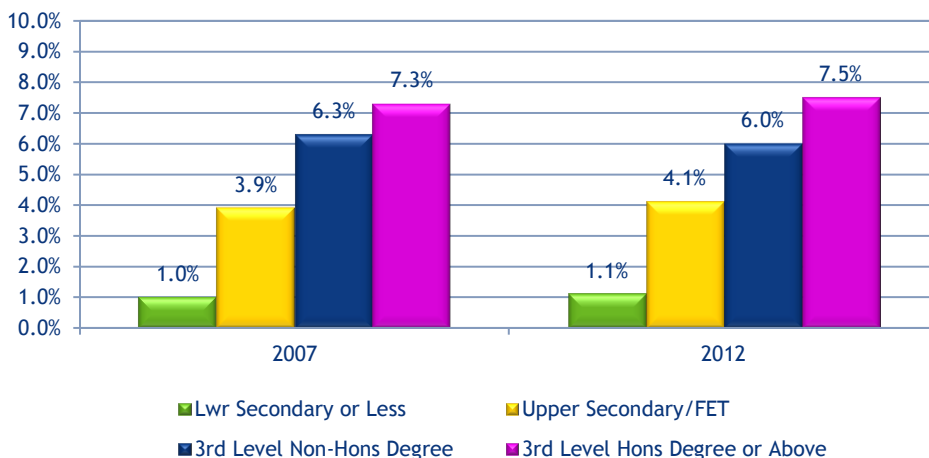


Source: SLMRU (FÁS) analysis of CSO (QNHS) data



- In terms of formal education participation rates, the higher the educational attainment, the greater the likelihood of participating in formal education (Figure 11.6):
  - those with third level honours degrees or above were most likely to participate in formal education with a participation rate of 7.5%, followed by those with a third level non honours degree qualification (6% formal education participation rate)
  - at just over 1%, those with at most a Junior Certificate qualification or equivalent were least likely to be formal education participants
  - when compared to quarter 4 2007, the formal education participation rate in quarter 4 2012 was mostly unchanged for all education attainment categories with the difference being less than half a percentage point in each case.

Figure 11.6 Adult Population by Formal Education Participation and Highest Educational Attainment, Quarter 4 2007 and Quarter 4 2012



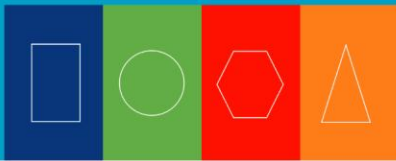
Source: SLMRU (FÁS) analysis of CSO (QNHS) data

## 11.6 What Do Formal Education Participants Study?

### 11.6.1 Level

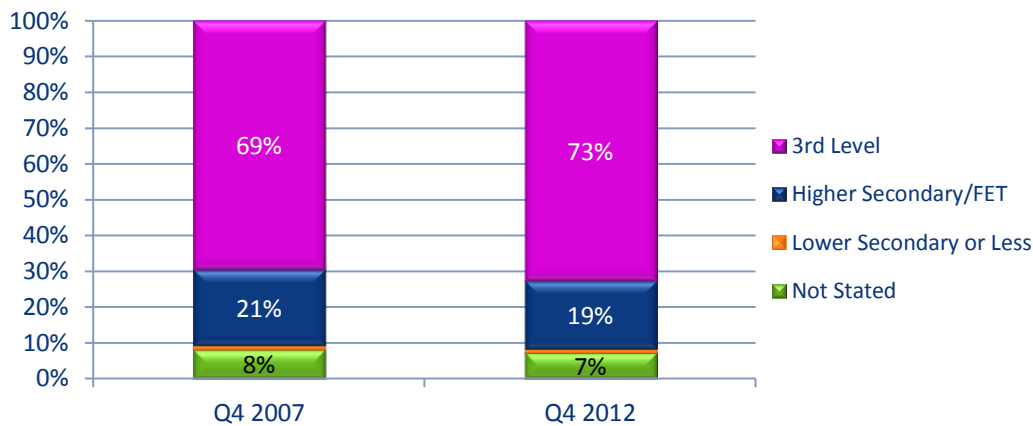
Figure 11.7 shows the distribution of formal education participants according to the level of the education/training they had undertaken in the four weeks prior to the survey. Of the 127,000 formal education participants in quarter 4 2012,

- the majority (73%, representing almost 93,000 people) had been in receipt of third level education and training
- almost a fifth were in higher secondary/FET level
- 1% at Junior Certificate (or equivalent level) or below
- the remaining 7% did not state a level
- when compared to the same period in 2007, the number of those undertaking education and training at third level increased (from 69% to 73%) but declined in all other categories,



particularly in the higher secondary/FET category which fell two percentage points, down from 21%.

Figure 11.7 Distribution of Formal Education Participants by Level of Education and Training Undertaken, Quarter 4 2007 and Quarter 4 2012



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

### 11.6.2 Field of Learning

Table 11.1 shows the distribution of formal education participants according to the field of learning of the education and training undertaken in the four weeks prior to the survey. A field of education is assigned only to courses at higher secondary education level and above; therefore the data in this subsection refers only to those participants who had engaged in education and training beyond Junior Certificate level (or equivalent). The field of learning is based on ISCED classifications; however, where numbers are too small to report, fields have been aggregated.

In quarter 4 2012,

- of the 93,000 formal education participants engaging in education at **third level**,
  - more than one third (37%, or in excess of 34,000 individuals) were in the field of social science, business and law
  - 16% (or approximately 15,000 individuals) were in health, vet and agriculture
  - 12% (or over 11,000 persons) were in science and computing
- more than one quarter of the 24,300 formal education participants engaging in education and training at **higher secondary/FET level** were in the ‘other’ field of learning, with a further quarter in the health, vet and agriculture field
- when compared to quarter 4 2007, the numbers at **third level** increased for most fields with the exception of the humanities and arts category
- at **higher secondary/FET level**, the overall numbers remained broadly static between, both in terms of the overall numbers engaging in education and training at this level and across the available fields of learning.

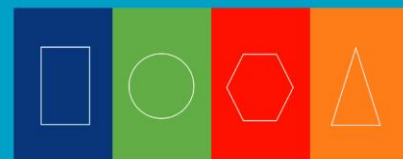


Table 11.1 Formal Education Participants by Field and Level of Education/Training Undertaken, Quarter 4 2007 and Quarter 4 2012

	Q4 2007		Q4 2012	
	Higher secondary/FET	3rd Level	Higher secondary/FET	3rd Level
Other**	6,400	7,500	6,400	10,300
Humanities & Arts	*	9,000	*	8,200
Social Science, Bus. & Law	3,100	29,200	3,800	34,300
Science & Computing	4,000	7,000	3,800	11,300
Eng. Manuf. & Construction	*	6,300	*	8,900
Health, Vet & Agriculture	4,300	11,800	6,400	15,000
Not Stated/Unknown	*	3,400	*	4,600
<b>Total</b>	<b>22,700</b>	<b>74,200</b>	<b>24,300</b>	<b>92,500</b>

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

\* Numbers are too small to report.

\*\*The 'other' category is comprised of general programmes, education, and services (e.g. tourism).

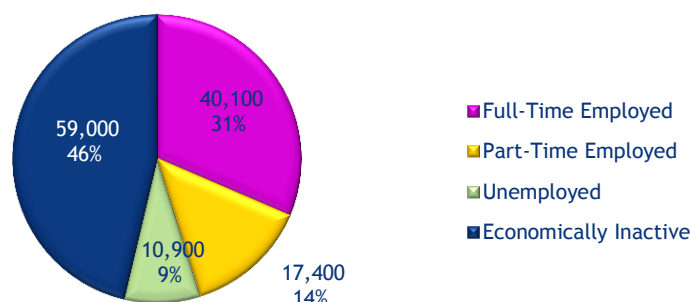
Note: All numbers have been rounded

## 11.7 Adult Participants in Formal Learning by Economic Status

This section examines the economic status of formal education participants at the time of the survey (Figure 11.8). Formal education participants were comprised almost equally of those in employment (57,500 persons, of which 40,100 were in full-time employment) and those who were economically inactive (59,000 persons); combined they made up 91% of the 127,000 formal education participants in quarter 4 2012. The remaining 9% (approximately 11,000 persons) were unemployed.



Figure 11.8 Formal Education Participation by Economic Status, Quarter 4 2012



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

When compared to quarter 4 2007,

- there was an 11% decline (approximately 7,300 fewer persons) in the number of employed participants; although sharper for the part-time employed (18% decline), in absolute terms the magnitude of the decline was similar for both full-time and part-time employed (between 3,000 and 4,000 fewer persons in each category)
- there was a rise in the number of economically inactive participants, which increased by one half (an additional 19,800 persons)
- there was a two and a half fold increase in the number of unemployed participants, albeit from a very low base
- In terms of share,
  - those in full-time employment fell from a 41% share to 31%
  - those in part-time employment fell from a 20% share to 14%
  - those who were unemployed or economically inactive increased from 3% to 9% and 37% to 46% respectively.

In terms of participation rates in quarter 4 2012,

- the highest formal education participation rate was observed for those who were economically inactive (5.3%) (Figure 11.9)
- at 3%, those in full-time employment were slightly less likely to engage in formal education than either part-time employed or the unemployed persons (each with a participation rate of 4.6%)
- with the exception of part-time employed persons, the formal education participation rate increased relative to quarter 4 2007 for all economic groups
  - While the increase was over one percentage point for the economically inactive (from 4% to 5.3%) and just over half a percentage point for the unemployed (from 3.8% to 4.6%), the increase was negligible for those in full-time employment (2.9% compared to 3%)
- in contrast, the participation rate for those in part-time employment experienced by far the greatest relative change, declining from 7% to 4.6% over the same period.

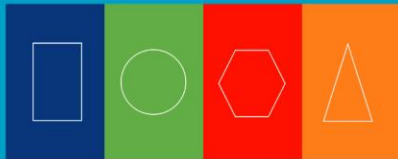
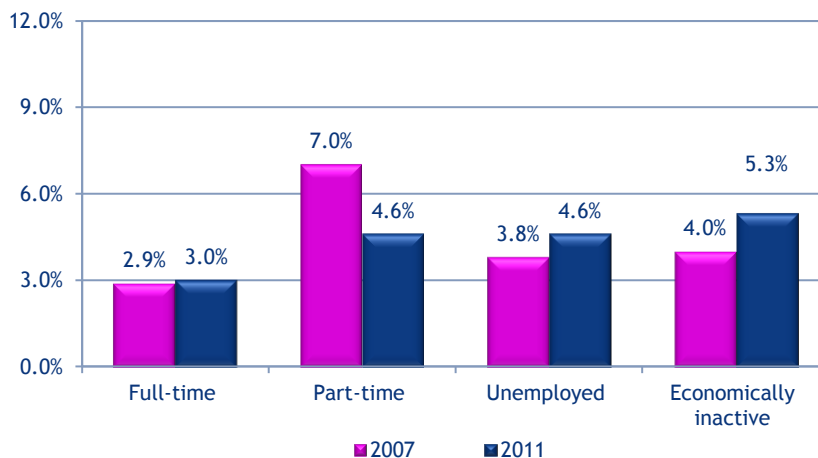


Figure 11.9 Formal Education Participation Rate (%) by Employment Status Quarter 4 2007 and Quarter 4 2012



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

### 11.7.1 Economically Inactive

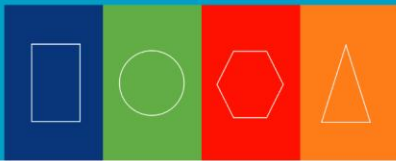
In quarter 4 2012, of the 59,000 formal education participants who were economically inactive (which includes, among others, full-time students<sup>51</sup>).

- Females outnumbered males: approximately 31,100 were female (53%); almost 27,900 were male (47%)
- The majority were in the younger age cohorts: 58% (approximately 34,000 persons) were aged 25-34; over a fifth (13,200 persons) were aged 35-44; 12% (7,200 persons) were aged 45-54 and the remaining 8% (4,600) were aged 55 or over
- Of those who stated their education level (57,500), one third (approximately 26,500 persons) were third level graduates; more than 40% (24,800 persons) had higher secondary/FET qualifications and 10% (almost 6,200) had lower secondary or less.

In terms of formal education participation rates amongst the economically inactive in quarter 4 2012,

- males were more likely than females to participate in formal education (7% of all economically inactive males compared to 4% for females)
- younger age cohorts were most likely to participate in formal education: at 27%, the participation rate for 25-34 year-olds amongst the economically inactive was almost three times that of 35-44 year-olds (9%) and more than five times that of 45-54 year-olds; it was also significantly higher than the 1% participation rate observed for those aged 55 and over.

<sup>51</sup> Of the economically inactive formal education participants, approximately 74% had classified themselves as students in quarter 4 2012



When compared to quarter 4 2007,

- the number of male participants more than doubled, going from over 13,300 to almost 27,900
- there were more female than male formal education participants in both time periods; however, the share of males increased by 13 percentage points, going from just over a third in quarter 4 2007 to 47% in quarter 4 2012
- there was little change in the overall age distribution of economically inactive formal education participants, with just one percentage point declines in each of the 25-34 and 35-44 year old age cohorts (down from 59% and 23% respectively) and concomitant increases in the older age cohorts
- 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 20% to 27%; those aged 35-44 from 7% to 9% and those aged 45 and over from 4% to 5%; the increase in the participation rate for those aged 55 and over was, however, negligible at just less than half a percentage point
- the share of formal education participants with higher secondary/FET qualifications remained unchanged, but there was a decline for those who held at most a Junior Certificate (or equivalent) (down from 16% to 11%) and an increase in the share who were third level graduates (up from 42% to 46%).

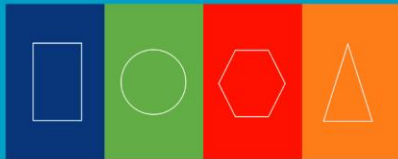
### 11.7.2 Employed

In quarter 4 2012, of the 57,500 formal education participants who were in employment,

- more than two thirds (approximately 40,100 persons ) were in full-time employment; the remainder (over 17,400 persons), in part-time employment
- females outnumbered males: almost 31,500 were female (55%); 26,000 were male (45%)
- almost three quarters were third level graduates, accounting for 42,100 persons
- in excess of 32,400 (more than one half) were aged 25-34; almost 14,600 (one quarter) were aged 35-44; almost 10,600 (approximately a fifth) were 45 years or over
- approximately one third (18,000 persons) of employed formal education participants were in professional occupations; more than a quarter (15,700 persons) were almost evenly distributed across associate professional and administrative/secretarial occupations; a further 10% (5,700 persons) were in caring, leisure and other service occupations and the remainder were distributed in other occupational groups.

In terms of formal education participation rates amongst the employed in quarter 4 2012,

- those employed part-time were slightly more likely than those in full-time employment to participate in formal education (3.0% vs 4.6%)
- part-time and full-time employed females were equally likely to participate in formal education (4%), but part-time employed males were much more likely than their full-time counterparts to participate (6% compared to 2%)
- employed persons aged 25-34 were more than twice as likely as those aged 35-44 years to engage in formal education (6.3% compared to 2.9%)



- with a participation rate of almost 5%, third level employed graduates were most likely to participate in formal education; their rate was more than double that of those with higher secondary/FET qualifications (2%).

When compared to quarter 4 2007,

- **there was an 11% decline (approximately 7,300 fewer persons) in the number of employed formal education participants;** this decline was observed for both full-time and part-time employed; although sharper in relative terms for the part-time employed, in absolute terms the magnitude of the decline was similar for both groups (between 3,000 and 4,000 fewer persons in each category)
- **the overall decline in the number of formal education participants is almost entirely due to a 20% decrease (7,500 fewer learners) in the number of 25-34 year old participants;** numbers in the remaining age groups remained largely unchanged between the two time periods
- **the age distribution shifted away from younger formal education participants:** by quarter 4 2011, the share of 25-34 year-olds declined by five percentage points (down from 61% to 56%); in contrast, the shares of those aged 35-44 engaging in formal education increased to 25% (up from 21%), with the remaining age groups remaining largely unchanged
- **the share of formal education participants who were third level graduates increased,** going from two thirds to three quarters of the total; conversely, the share of those without third level qualifications declined, going from 29% to 22% for those with higher secondary/FET and from 7% to 4% for those with at most a Junior Certificate or equivalent
- the participation rate of those in employment declined for all education attainment categories over the five-year period
- at 8.1%, part-time employed third level graduates had the highest formal education participation rate amongst those in employment, their likelihood of engaging in formal education declined over the five year period, down from 11.4% in quarter 4 2007.

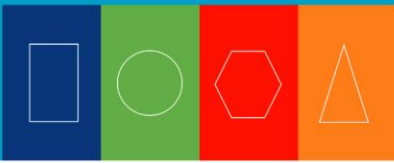
### 11.7.3 Unemployed

In quarter 4 2012, of the 10,900 formal education participants who were unemployed,

- males outnumbered females: there were over 6,300 males (58%) and 4,500 females (42%)
- unemployed formal education participants were almost evenly distributed across three age cohorts: those aged 25-34 years, 35-44 years and 45 years and over, each making up a third of the overall share and accounting for approximately 3,600 participants each
- of those who stated their highest level of education attainment, third level graduates and those with higher secondary/FET qualifications made up almost equal shares amongst formal education participants (approximately 45% or just under 5,000 individuals each).

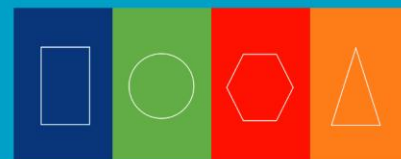
In terms of formal education participation rates amongst the unemployed in quarter 4 2012,

- females were slightly more likely than males to participate in formal education (6% for females compared to 4% for males)



- at over 8%, unemployed third level graduates were more likely to participate in formal education than their counterparts with higher secondary/FET qualifications (4.7%) or lower secondary or below educational attainment (1.7%)
- younger individuals were slightly less likely to participate in formal education than those aged 35 or over: 4.2% of those aged 25-34 had participated in formal education in quarter 4 2012, compared to 5.1% for those aged 35-44 years and 4.6% for those aged 45+.

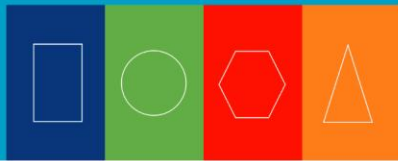
The number of unemployed formal education participants in quarter 4 2007 was too small to report.



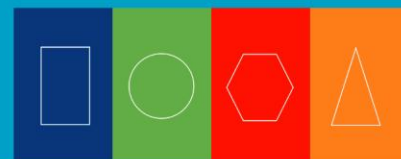
## Appendix A QQI-FETAC Field of Learning Classification

Table A.1 FETAC Field of Learning Classification

1. 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-painting)
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

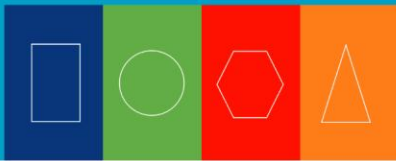


3. Business & Administration
Business
Legal
Retail/Wholesale/Trade/Sales/Estate Agency/Purchasing/applied Economics
Finance/Banking/Insurance/Taxation/Accounting
Enterprise/Business Development/Entrepreneur/SYOB/Gen Business/
Marketing/PR
Human Resource/Customers/Organisational DEV + Sk./Personnel
Advertising/Display/Merchandising
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



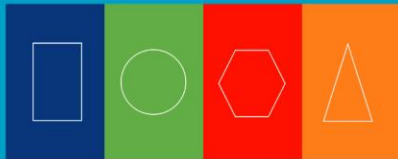
General Studies
Irish Tradition + Culture
EU Studies + Culture
History/Geography/Archaeology
Civics/Politics/Liberal Arts/Classics
Philosophy
<b>6 Education, Health &amp; Welfare</b>
Education & Training
Trainer/Train the Trainer/Mentor
Assessor/Evaluator
Prof. Development Studies
Supervisory Studies
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
<b>7 Engineering &amp; Manufacturing</b>
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
<b>8. Services</b>
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
<b>9. Tourism, Hospitality &amp; Sport</b>
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
<b>10. Unclassified</b>

Source: QQI

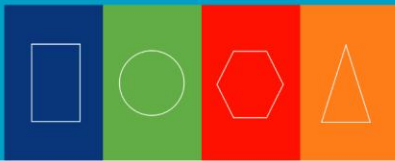


## Appendix B Education Field Occupations

Table B.1 Occupations Included in Education Fields

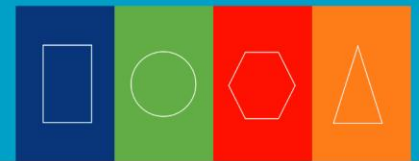
Field of Education & Training	Occupations
Education	Careers advisers & vocational guidance specialists
	Education advisers & school inspectors
	Educational support assistants
	Further education teaching professionals
	Higher education teaching professionals
	Primary & nursery education teaching professionals
	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
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.
	Debt, rent & other cash collectors



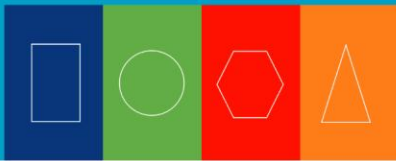
Field of Education & Training	Occupations
	Elected officers & representatives
	Elementary Administration Occupations
	Elementary Sales Occupations
	Estate agents & auctioneers
	Estimators, valuers & assessors
	Finance & investment analysts & advisers
	Finance officers
	Financial accounts managers
	Financial 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
	Market research interviewers

Field of Education & Training	Occupations
	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
	Social and humanities scientists



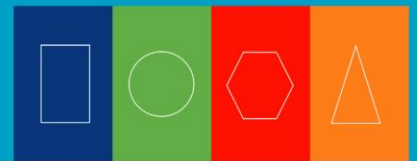
Field of Education & Training	Occupations
	Social workers
	Solicitors
	Stock control clerks and assistants
	Taxation experts
	Telephone salespersons
	Telephonists
	Transport and distribution clerks and assistants
	Typists and related keyboard occupations
	Vehicle and parts salespersons and advisers
	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
	Web design & development professionals
Engineering, Manufacturing &	Air-conditioning & refrigeration engineers

Field of Education & Training	Occupations
Construction	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
	Elementary Construction Occupations



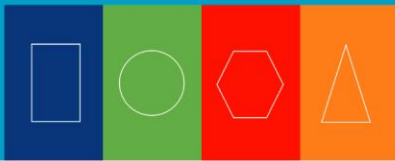
Field of Education & Training	Occupations
	Elementary Process Plant Occupations
	Elementary process plant occupations n.e.c.
	Elementary sales occupations n.e.c.
	Energy plant operatives
	Engineering Professionals
	Engineering professionals n.e.c.
	Engineering technicians
	Fishmongers & poultry dressers
	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.
	Plasterers

Field of Education & Training	Occupations
	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, staggers & 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
	TV, video & audio engineers



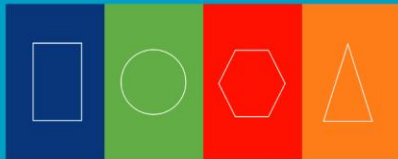
Field of Education & Training	Occupations
	Tyre, exhaust & windscreen fitters
	Upholsterers
	Vehicle body builders & repairers
	Vehicle paint technicians
	Vehicle technicians, mechanics & electricians
	Vehicle Trades
	Water & sewerage plant operatives
	Weavers & knitters
	Weighers, graders & sorters
	Welding trades
Agriculture & Veterinary	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
	Dental practitioners

Field of Education & Training	Occupations
	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.
Welfare professionals n.e.c.	



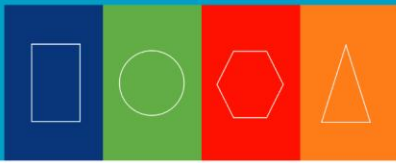
Field of Education & Training	Occupations
	Youth & community workers
Services	Agricultural machinery drivers
	Air traffic controllers
	Air transport operatives
	Air travel assistants
	Aircraft pilots & flight engineers
	Bar staff
	Beauticians & related occupations
	Bus & coach drivers
	Caretakers
	Catering & 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	
Launderers, dry cleaners & pressers	

Field of Education & Training	Occupations
	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
	Ship & hovercraft officers



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





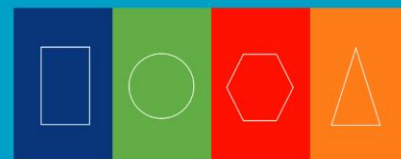
## Appendix C Other Higher & Professional Education Providers

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

Griffith College  
Dublin Business School  
Hibernia College  
IBAT College Dublin  
Carlow College  
Clanwilliam Institute  
College of Computer Training  
Development Studies Centre, Kimmage  
Grafton College of Management Sciences  
ICD Business School  
IICP Education and Training  
Independent Colleges  
Institute of Physical Therapy and Applied Science  
Irish Business and Employers' Confederation (IBEC)  
Irish Institute of Purchasing and Materials Management  
Leinster Academy, Leinster Rugby IRFU  
Newpark Music Centre  
Portobello Institute  
Setanta College  
SQT Training  
St Nicholas Montessori College Ireland  
The American College, Dublin  
The Irish College of Humanities and Applied Sciences  
The Open Training College  
The Open University (data supplied by QQI)

### Appendix C2. Professional Bodies

Association of Chartered Certified Accountants  
Association of International Accountants  
Chartered Institute of Management Accountants  
Chartered Institute of Public Finance and Accountancy  
Kings Inns  
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  
Institute Professional Auctioneers and Valuers  
Irish Tax Institute



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Ned Costello	Chief Executive, Irish Universities Association
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Sonia Flynn	EMEA Director for User Operations, Facebook
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Dr Brendan Murphy	President, Cork Institute of Technology
Dermot Nolan	Department of Public Expenditure and Reform
Alan Nuzum	CEO, Skillnets
Muiris O'Connor	Higher Education Authority
Peter Rigney	Industrial Officer, ICTU
Martin Shanagher	Assistant Secretary, Department of Jobs, Enterprise and Innovation
Martin D. Shanahan	Chief Executive, Forfás
Jacinta Stewart	Chief Executive, City of Dublin VEC



## Recent Publications by the Expert Group on Future Skills Needs

Report	Date of Publication
Future Skills Requirements of the Manufacturing Sector to 2020	April 2013
The Expert Group on Future Skills Needs Statement of Activity 2012	April 2013
Guidance for Higher Education Providers on Current and Future Skills Needs of Enterprise: Springboard 2013	February 2013
Vacancy Overview 2012	February 2013
Regional Labour Markets Bulletin 2012	January 2013
Monitoring Ireland's Skills Supply: Trends in Education and Training Outputs 2012	July 2012
National Skills Bulletin 2012	July 2012
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 ( <i>Forfás report based on EGFSN identified future skills needs</i> )	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
EGFSN Statement of Activity 2010	May 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
EGFSN Statement of Activity 2009	April 2010
Future Skills Requirements of the Food and Beverage Sector	November 2009
Skills in Creativity, Design and Innovation	November 2009
Monitoring Ireland's 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
EGFSN Statement of Activity 2008	June 2009



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