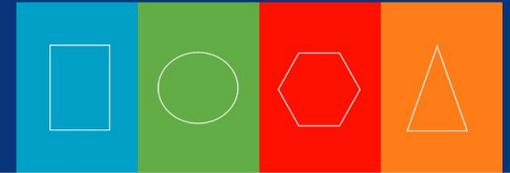




National Skills Bulletin 2012

July 2012

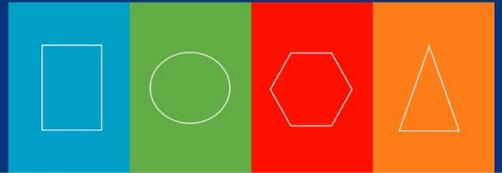


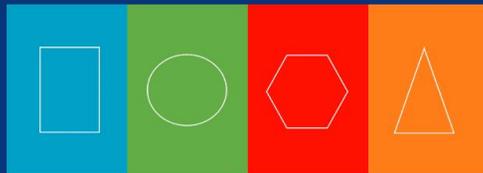
National Skills Bulletin 2012

A Study by the Skills and Labour Market Research Unit
(SLMRU) in FÁS for the Expert Group on Future Skills Needs

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Foreword

The National Skills Bulletin 2012 is the eighth in an annual series of reports produced by the Skills and Labour Market Research Unit (SLMRU) in FÁS on behalf of the Expert Group on Future Skills Needs (EGFSN). The Bulletin provides a detailed overview of the Irish labour market at occupational level, based on the information compiled and maintained in the National Skills Database.



Over the period 2010-2011, the main labour market indicators pointed towards further deterioration - although at a slower rate when compared to the situation a year ago. The number of persons in employment contracted, unemployment increased, and long term unemployment persisted at an elevated level.

Despite the economic downturn, the findings highlight areas where some employment opportunities as well as skills shortages have continued to exist. Job vacancy data shows that jobs opportunities continued to arise during 2011 with vacancies being most frequent for sales and related occupations, including marketing and customer services roles. Vacancies also arose for IT professionals, science and engineering professionals, business professionals, selected administrative occupations, IT associate professionals, and certain personal care occupations.

Although the incidence of skill shortages was well below the levels recorded at the peak of economic activity in 2007, some skills shortages were identified in 2011. These are primarily confined to the information and communications sector and highly specialised posts in high-tech manufacturing, mostly biopharma, as well as in more traditional manufacturing segments (e.g. agri-food), the financial services sector, and the health sector.

The findings of the National Skills Bulletin are particularly relevant in the context of high unemployment as they serve as a guide to school leavers, jobs seekers, and career guidance professionals in deciding on education and training choices. In this context, the Bulletin is a valuable resource for policy makers in relation to anticipating and addressing any mismatch between skills demand and supply in Ireland's labour market.

Una Halligan
Chairperson, Expert Group on Future Skills Needs

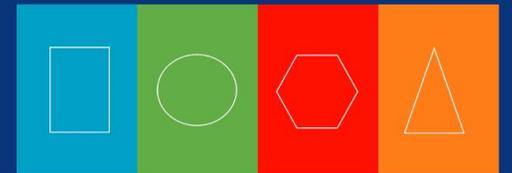
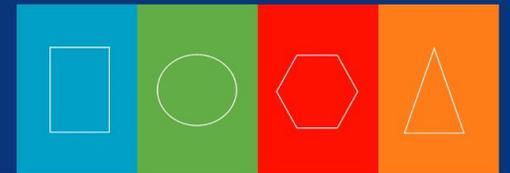


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Executive Summary

The National Skills Bulletin 2012 is the eighth in an annual series of reports produced by the Skills and Labour Market Research Unit (SLMRU) in FÁS on behalf of the Expert Group on Future Skills Needs (EGFSN). It provides an overview of the Irish labour market at occupational level. The Bulletin aims to assist policy formulation in the areas of employment, education/training and immigration. It is also intended to inform career guidance advisors, students and other individuals making career and educational choices.

When interpreting the data, the following should be borne in mind:

- the employment level for each occupation is expressed as an annual average (i.e. the average of four quarters)
- the trend analysis of occupations covers the four-year period 2007-2011, unless otherwise specified
- the employment composition (i.e. age, gender etc.) is based on the most recent data, which is quarter 4 2011
- unless otherwise specified, the annual change in employment is measured between quarter 4 2010 and quarter 4 2011
- the term 'shortage' in this report refers only to the situation whereby the supply of skills or labour from within the Irish labour force is insufficient to meet demand (which does not imply a shortage at the European Economic Area (EEA) level).
- in this year's Bulletin, occupations are classified using the Standard Occupational Classification (SOC) 2010, whereas in previous bulletins they were classified

using SOC 1990¹. While creating a break in the time series, the move to the new classification system is seen as advantageous, primarily because it provides a more accurate account of occupations employed in today's labour market. This is especially the case for the relatively newer occupations which have emerged since the adoption of SOC 1990.

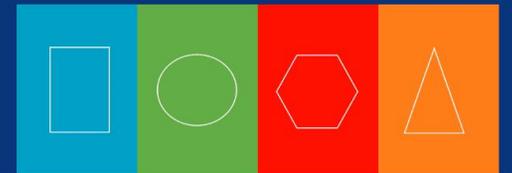
Irish Labour Market in 2011

Looking at the annual average data, the main labour market indicators pointed towards a further deterioration between 2010 and 2011:

- the labour force contracted by 0.6% and averaged approximately 2.1 million; there were approximately 25,500 fewer persons either at work or seeking work during 2011 when compared to 2010
- the number of persons in employment declined by approximately 38,000, to 1.81 million
- the total number of unemployed persons averaged 304,000 in 2011, an increase of 4.3% (or approximately 12,500 in absolute terms)
- the labour force participation rate declined to 60.3%, the employment rate declined to 59.2% and the unemployment rate increased to 14.4%

However, there was a deceleration in the rate of deterioration in the main labour market indicators when compared to the situation a year ago. Aligned with this, there was also a small improvement in some of the main labour market indicators in the last quarter of

¹ The Central Statistics Office (CSO) moved from using the Standard Occupational Classification (SOC) 1990 to SOC 2010 in 2011; the occupational data has been re-classified using SOC 2010 back to 2007.



2011, with employment increasing slightly and unemployment decreasing in relation to the previous quarter. Furthermore, while the total number of redundancies in 2011 reached almost 50,000, this is nevertheless lower than the corresponding figure for 2010, when approximately 58,700 redundancies were recorded.

However, the long-term unemployment rate reached 8.6% in quarter 4 2011, up from 7.6% observed a year previously. This translated into approximately 182,000 persons seeking work for 12 months and longer.

Sectoral Employment

Between quarter 4 2010 and quarter 4 2011, declines in employment were observed in the education sector, agriculture, forestry & fishing, the transportation & storage sector, professional, scientific and technical services, wholesale & retail, in a wide range of NACE activities classified as “other”, as well as in public administration & defence. On the other hand, the information and communications sector expanded strongly, by 8.5%, well ahead of its medium term growth rate. Employment also expanded relatively strongly in administrative & support services, as well as in financial, insurance and real estate services. At the same time, the accommodation & food sector and industry overall expanded only marginally.

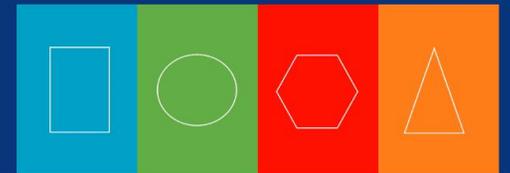
With regards to industry, the growth occurred in the manufacturing segment while employment in utilities and in extraction declined. More specifically, employment in low technology and medium-to-low technology manufacturing increased. This development was a reversal of the medium term trend for these segments, when employment had been declining at an average

annual rate of 5.2% and 9.3% respectively. Within low technology manufacturing, the food and beverages industry was the only segment to expand; however, such was the scale of this expansion (+13%, or approximately 10,500 persons), it was more than enough to cancel out the sharp declines in the remaining activities (namely textile, apparel and leather, and wood, paper, and printing & recorded media). Employment in medium-to-high manufacturing activities also expanded. However, employment in the high technology segment declined over the period quarter 4 2010-quarter 4 2011.

Regional Employment

While overall employment declined, there were discernible regional variations. Thus employment declined in the Dublin, Border, South-East and West regions, while it actually increased in the Mid-East and Mid-West and remained the same in the Midlands region over the period quarter 4 2010 to quarter 4 2011. In absolute terms, the greatest change in employment occurred in the Dublin region, where a net job loss of approximately 14,000 was observed. In relative terms, the scale of decline in the Border region was the same as that recorded for the Dublin region, with employment contracting by 3% in each. At the same time, the largest increase was recorded for the Mid-East region, where employment increased by 3%, translating into an additional 6,000 persons in employment.

The South-East and Midlands regions had the highest unemployment rates, 18.9% and 18.1% respectively, in quarter 4 2011. The Mid-West and West regions also had unemployment rates that were above the national average, of 15.7% and 15.2% respectively. At the same time, the Mid-East region had the lowest rate of unemployment (12.3%), while the Dublin region had the second lowest (12.8%).



In quarter 4 2011, the lowest participation rate was observed in the Border region, with further withdrawals from the labour force evident in the 1.3 percentage points loss year-on-year in relation to quarter 4 2010. Labour force participation also decreased in the Dublin region and in the South-East, while it increased in all other regions, albeit by less than one percentage point in all cases. The highest participation rate of 65.5% was observed in the Mid-East region.

Education and Training Output

A summary of the supply of skills, measured by the number of awards from the education and training system in 2011, is presented in Table A1. There were approximately 58,000 awards in the higher education sector and almost 38,000 major awards in the further education and training sector. The combined total of awards, spanning levels 1-10, was 95,990, which is an 11.4 % increase on the preceding year.

The analysis undertaken in the context of the National Skills Strategy (NSS), which set out the relevant policy targets regarding the educational attainment of the labour force, suggests that further improvements regarding the educational profile have been made during 2011. Thus it is estimated that 42% hold third level qualifications, 40% hold higher secondary/FET qualifications, while the proportion of those holding lower secondary or below has dropped to just under one fifth - the first time since tracking the progress towards the NSS targets began. (Figure A1)

Table A1. Summary of Further and Higher Education and Training Awards by Field and National Framework of Qualifications (NFQ) Level, 2011²

Field	NFQ Level						Total
	1-4	5	6	7	8	9/10	
General	4,740	320	-	-	-	-	5,060
Education	220	10	40	50	1,700	3,200	5,220
Hum., Arts	10	2,720	830	1,210	5,020	2,170	11,960
Social, Bus., Law	220	5,580	2,160	2,430	8,130	6,090	24,610
Science	0	880	500	890	3,280	2,050	7,600
Eng & Cons.	20	510	4,290	2,210	3,140	1,300	11,470
Ag & Vet.	80	1,310	1,080	270	270	110	3,120
Health	30	10,050	2,580	1,050	4,690	2,800	21,200
Services	0	2,090	1,650	1,020	580	410	5,750
Total	5,320	23,470	13,130	9,130	26,810	18,130	95,990

Source: FETAC (Major awards); HEA

² Awards data for universities and institutes of technology is for the year 2010; FETAC awards data is for 2011. Data does not include all awards made in the independent, private third level sector.

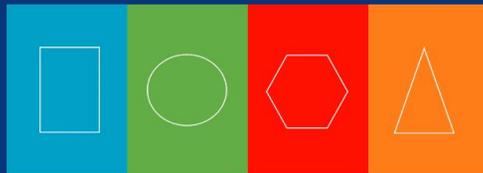


Figure A1 Education Attainment of the Labour Force and the NSS Vision for 2020



Source: SLMRU (FÁS) analysis of CSO data

Note: Based on those in the labour force (aged 15-64) stating their highest level of education attained; quarters are calendar based.

Sourcing of Skills from Outside the European Economic Area (EEA)

While employers continue to source skills from outside the EEA, the trend is towards a reduction in the overall number. Thus there were just over 3,300 new³ employment permits issued to non-EEA, Romanian and Bulgarian nationals in 2011, which was considerably below (a 60% reduction) the number issued in 2008, and it was a 12% decrease on the number issued in 2010. At 27%, the largest share of new employment permits issued in 2011 was to non-EEA nationals for positions in the information and communication sector. This represents more than a two fold increase in the share that prevailed in 2010.

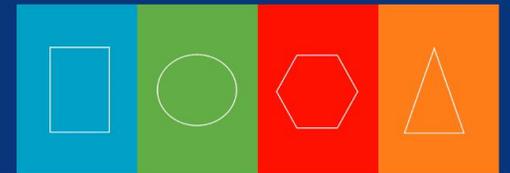
³ While a number of employment permits are renewed annually, the analysis focuses solely on the number of new permits issued as it allows for the identification of the most recent occupations sourced from outside the EEA.

Vacancies

Despite the recession, job vacancies, as advertised on the FÁS Jobs Ireland website, IrishJobs.ie and the Irish Times, have continued to arise in the Irish labour market during 2011. Although at a much lower level compared to the peak level reached during 2007, the overall number of vacancies advertised through FÁS and Irishjobs.ie in 2011 was higher than in 2010.

In 2011, vacancies advertised through Irishjobs.ie and the Irish Times were mostly concentrated in professional and associate professional occupations. At the same time, newly advertised vacancies through FÁS Jobs Ireland were concentrated in personal services (e.g. caring and leisure) and associate professional occupations as well as skilled trades and sales/customer service occupations.

The results from the Spring SLMRU recruitment agency survey suggest that some difficult to fill vacancies persist in the Irish labour market. These are however primarily confined to specialised posts in the information and communications sector (e.g. designers and developers with specific skill sets such as sophisticated database architecture, JAVA related applications, etc.), in high-tech manufacturing, mostly biopharma (e.g. chemical and product formulation engineers and analysts, especially those with an API (Active Pharmaceutical Ingredients) background) as well as more traditional manufacturing segments, namely agri-food (e.g. process and quality control engineers), in the financial services sector (e.g. risk analysts, credit specialists, actuaries), and in the health sector (e.g. medical doctors, radiographers, and advanced nursing practitioners (ANP)).



Shortages

A skills shortage refers to a situation whereby there is an insufficient number of individuals who have the required qualifications, skills set and/or experience to fill a particular post. Some skills shortages have been identified and although the incidence of shortages is well below the levels recorded at the peak of economic activity in 2007, the mentions were slightly more frequent than in 2010.

A labour shortage arises when there are an insufficient number of individuals who are willing and available to take up employment opportunities in a particular occupation. Given further declines in employment during 2011, there has been an increase in the excess supply of labour in Ireland. As a result, effectively no instances of labour shortages have been identified.

Science

Recent data points to shortages of biologists (including microbiologists) and chemists as well as research and development project managers for the bio-pharmaceutical sector. In addition, chemists are proving difficult to source in the areas of product formulation, analytical development, and research and development in the area of biotechnology.

The demand for science skills is expected to be driven by moves towards higher value added activities within the high technology manufacturing sectors, increased demand for healthcare and healthcare products, and the Government's on-going investments in science, technology and innovation. Science skills will also be important in the context of the green agenda.

Engineering

Shortages have been identified for a number of engineering occupations. Specific engineering skills in demand include:

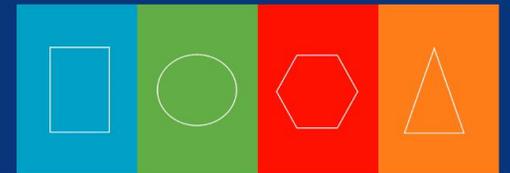
- chemical and product formulation engineers and analysts, especially those with an API background
- production, process and process safety engineers
- quality control engineers (for the food and high-tech industries)
- regulation engineers
- industrial hygiene engineers
- validation engineers (telecommunications sector)
- mechanical engineers (process automation, system control engineers (including Six Sigma specialists and design engineers)
- electrical engineers with substantial experience in power generation, transmission and distribution (wind energy, high tension power, sub-station power engineers)
- instrumentation and control technicians in manufacturing (machinery, equipment and medical device sub-sectors).

The demand for engineering skills is illustrated in recent job announcements which span the following areas: electronics - particularly in semi-conductor manufacturing, medical devices, pharmaceuticals, and energy.

Information technology

ICT skills difficult to source include:

- Computer software engineers and developers with specific skills sets such as:



- Sophisticated database architecture, maintenance and operations (e.g. SQL, Transact-SQL, Oracle)
- Java-related applications (including .Net, C#, C++, Summit, UX/UI)
- Open source applications (e.g. Linux, Flash/Flex, Ruby on Rails)
- Online applications (e.g. PHP, CSS, HTML, Interactive visual, MS Sharepoint)
- Mobile app development (also with HTML 5, Objective C, J2ME) for iphone and android platforms
- Cloud computing
- Linux/Unix for gaming technologies
- IT security experts: Internet security and network security models and solutions for the financial sector
- IT online support, technical user support, IT testing and troubleshooting.

While some experience was desirable (1-5 years), the demand was particularly strong for those with expertise in more than one of the above areas (e.g. expertise in both Java and in the migration of CSM/CRM⁴ applications to web based or cloud computing architecture and software as a service (SaaS) applications), indicating that the appropriate skills mix was most relevant. The demand for ICT skills is expected to remain strong based on the recent announcements of job creation by both multinational and indigenous companies in the information and communication sector. New job creation was announced by companies in a diverse range of areas within ICT such as:

- Cloud computing
- Network security
- Localisation and testing

⁴ Customer service management/customer relationship management.

- Telecommunications
- Research & Development.

In order to ensure a sustainable domestic supply of ICT skills and to support further expansion of the ICT sector, the Government has launched the ICT Action Plan: Meeting the high-level skills needs of enterprise in Ireland⁵ which aims to double the annual output of ICT graduates in the medium to long term i.e. from 1,000 this year to 2,000 by 2018. Furthermore, under the Springboard initiative⁶, there are a number of new places in ICT higher education programmes for the training of unemployed persons in this area.

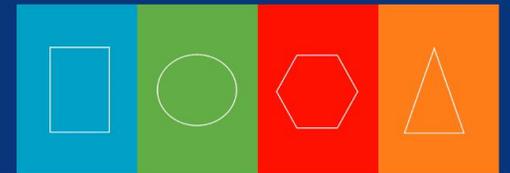
Financial

Despite the announced job losses (mainly associated with the restructuring of the retail banking sector, and to a lesser extent insurance), some shortages of financial skills continue to exist. Skills difficult to source include:

- professionals in credit and risk management (e.g. risk analysts, credit specialists, actuaries)
- compliance experts (financial services regulation and compliance with Basel Accords, especially BASEL II and III)
- accountants with experience in corporate solvency and financial restructuring
- specialists in insurance business (underwriting and claim handling)
- business professionals and associate professionals with sophisticated business skills mixes (e.g. IT know-how and communication systems expertise in applications such as SAP, ORACLE and

⁵ Department of Education and Skills, 2012; (URL:http://www.education.ie/servlet/blobServlet/pub_higher_ed_ict_action_plan_2012.pdf)

⁶ Source: <http://www.springboardcourses.ie>; <http://www.heai.ie/springboard>



other Enterprise Resource Planning (ERP) systems)

- financial managers (e.g. client relationship managers in investment banking).

The demand for high level financial skills, particularly in the area of risk and compliance, is expected to be driven by the continued restructuring and reform of the banking sector.

Health and social care

Although employment opportunities in the public healthcare sector remain limited due to the deterioration in the public finances, skills shortages persist for the following healthcare occupations:

- Medical practitioners: non-consultant hospital doctors (particularly for senior house officer (SHO) and registrar grades) and radiologists. There were just under 300 new employment permits issued to non-EEA doctors in 2011.⁷
- Specialist nurses: clinical nursing managers, advanced nursing practitioners in intensive care, theatre, radiology and general nurses for elderly people care. There were 150 new employment permits issued to non-EEA nurses in 2011.
- Radiographers: Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) radiographers and sonographers.

Sales and marketing

Shortages of the following sales and customer service support skills have been identified:

⁷ This is an underestimation of the true inflow because since mid-June 2010, non-EEA NCHDs (non-consultant hospital doctors) with job offers as senior house officers or registrars in the public health service or for trainee positions (excluding internships) do not require an employment permit to work in Ireland. They can obtain Stamp 1 immigration status from the Department of Justice and Equality which entitles them to work in Ireland.

- contact centres roles for candidates fluent (mostly at native proficiency level) in one or more European languages (e.g. German, Italian, French and Nordic)); the demand was often for language skills combined with relevant product knowledge
- online marketing and sales roles (across a variety of sectors, e.g. IT, gaming)
- senior technical and specialised sales representatives, often in a business-to-business (B2B) capacity (e.g. IT, telecommunications, gaming, fast moving consumer goods (FMCG)).

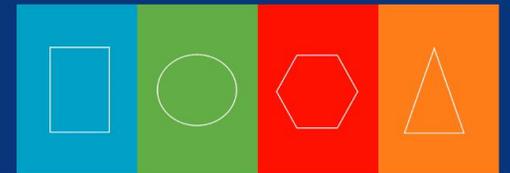
Craft

During 2011, de-boners and trimmers / filleters continued to be sourced from outside the EEA. However, the pilot training programme in butchery skills, developed by FÁS and the National Butchery Academy, should help address the shortage in the short-to-medium term.

Recently, some companies have reported difficulty in sourcing toolmakers. Apprentice intake levels in 2011 were almost 40% higher than in the previous year. The expansion in tool-making activities and the associated demand for tool-making skills is primarily influenced by the strong performance in some segments of high-tech manufacturing (e.g. medical devices).

Transport

There were some issues in relation to leveraging expertise in international supply chain management necessary to support growth in international trade, with some evidence to suggest that the skills mix available in these areas may not be sufficient.



Clerical

While there are currently no shortages of administrative and secretarial skills in general, there are indications that some multilingual roles in niche areas (e.g. credit control, accounts payable, specialist roles in supply chain operations) are proving difficult to fill.

Elementary occupations

While there are currently no shortages of labourers, there appear to be issues in sourcing cleaners and kitchen assistants domestically. Approximately 40% of the workforce of both cleaners and kitchen assistants were non-Irish nationals, with the inflow from non-EEA countries continuing throughout the recession.

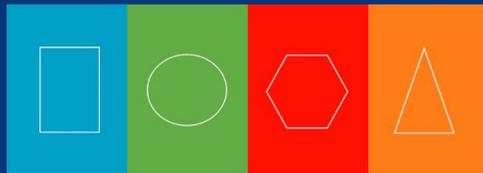
Unemployment

In 2011, the number of persons seeking employment averaged 304,000, which was almost 13,000 more than the average for 2010. However, this increase was less than half of that observed the year previously.

- The highest unemployment rate (in excess of 20%) was recorded for elementary occupations and skilled tradespersons. This was five times higher than the unemployment rate for professionals of just over 4%. The unemployment rate of 'white collar' occupations remained in single-digits, as it did for service occupations.
- In quarter 4 2011, two thirds of unemployed persons were male. The share of males decreased by one percentage point compared to quarter 4 2010.
- At almost 30%, the unemployment rate for the under 25s was more than twice above the rate for persons aged 25-54 and more than three times above the rate for

persons aged 55 or over. Between quarter 4 2010 and quarter 4 2011, the unemployment rate for each age cohort remained broadly the same, with changes of a magnitude less than one percentage point

- Those at greatest risk of unemployment were aged under 25 with the lowest level of educational attainment. Younger age cohorts had a higher unemployment rate at all education levels, so that even third level graduates who were younger than 25 had an unemployment rate of 17%. The lowest unemployment rate was amongst older third level graduates. This is broadly in line with the unemployment rates observed a year previously, although the rates for all age cohorts in the lower secondary or less education category increased by 1-2 percentage points.
- The unemployment rate of non-Irish nationals was three percentage points higher than that of Irish nationals. However, between quarter 4 2010 and quarter 4 2011, the unemployment rate of non-Irish nationals decreased by over one percentage point, while that of Irish nationals increased marginally (by 0.4 percentage points).
- In quarter 4 2011, just over 72,000, or one in four, unemployed persons had previously worked in the construction sector, with a further 35,000 persons each in the wholesale & retail and industry sectors.
- At 40%, the unemployment rate for construction workers was by far the highest of all sectors. Other sectors with an unemployment rate of over 10% included administrative services, accommodation & food, transportation, industry and wholesale & retail.



Introduction

The National Skills Bulletin 2012 is the eighth in an annual series of reports produced by the Skills and Labour Market Research Unit (SLMRU) in FÁS on behalf of the Expert Group on Future Skills Needs (EGFSN). It provides an overview of the Irish labour market at occupational level. The Bulletin aims to assist policy formulation in the areas of employment, education/training and immigration, particularly the sourcing of skills which are in short supply domestically from the European Economic Area (EEA), as well as to inform career advisors, students and other individuals making career and educational choices.

In this year's Bulletin, the occupations have been reclassified to the new Standard Occupational Classification System (SOC 2010), whereas in previous bulletins they were classified to the SOC 1990⁸. While creating a break in the time series, the move to the new classification system is seen as advantageous, primarily because it provides a more accurate account of occupations employed in today's labour market. This is particularly the case for relatively newer occupations which have emerged since the introduction of SOC 1990; for example, IT technical support staff or web designers were not identifiable in the former classification system. The differences between the old and new classification are also apparent when broad occupational groups are considered; thus under the SOC 2010, the broad professional occupational group includes several occupations which had previously been classified elsewhere. For example, nurses and therapists moved from the

⁸ The Central Statistics Office (CSO) moved from using the Standard Occupational Classification (SOC) 1990 to the SOC 2010 in 2011.

associate professional category into the professional category; similarly, many occupations which had been classified as managers with specific expertise under SOC 1990 are now classified as professionals under the new classification system (e.g. IT managers moved from the managerial to IT professional occupational group).

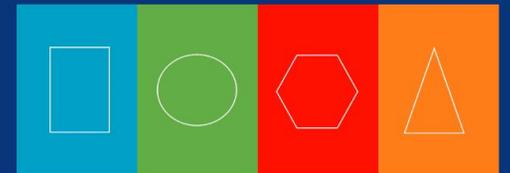
As in previous publications, in cases where the number of persons employed in an occupation is too small to allow for meaningful statistical analysis, two or more occupations were merged to form an occupational group. The analysis covers over 130 occupations.

Each occupation is examined in terms of:

- the employment profile (e.g. age, gender, nationality etc.), employment change⁹ and recent employment trends using the data from the Central Statistics Office (CSO) Quarterly National Household Survey (QNHS)¹⁰
- the number of employment permits issued to non-EEA, Romanian and Bulgarian nationals by the Department of Jobs, Enterprise, and Innovation (DJEI)

⁹ By looking at the change in the level of employment one can assess the net result of the total job creation and job losses. If an increase in the employment level is observed between two time points, it implies that there were more jobs created than lost over that period -this is referred to as 'net job creation'; a decline in employment is referred to as 'net job losses'.

¹⁰ The CSO re-issued micro data from the QNHS back to the year 1998; all quarters in the revised data series are calendar based and sectoral codes have been reclassified using the NACE Rev. 2 classification back to 2004. The occupational data has been re-classified to SOC 2010 back to 2007. This may result in some discrepancies between the historical data presented in this issue and the data published in previous editions of the National Skills Bulletin.



- the level of difficulty in filling vacancies reported in the six-monthly survey(s) of recruitment agencies conducted by the SLMRU
- an analysis of vacancies advertised through FÁS, the Irish Times and IrishJobs.ie
- job announcements by the Industrial Development Authority (IDA) and in national newspapers
- an estimate of the supply of skills emerging from the Irish education and training system derived from data supplied by the Higher Education Authority (HEA), Further Education and Training Awarding Council (FETAC), Higher Education and Training Awards Council (HETAC), Department of Education and Skills (DES), the State Examinations Commission (SEC), the Central Applications Office (CAO) and selected private sector education providers
- any other relevant findings from the EGFSN's sectoral studies and other relevant research.

The Bulletin synthesises all available data on the above indicators in order to:

- provide a statistical record of the labour market situation at occupational level
- draw on this data, and other qualitative information, to identify any shortages.

The term 'shortage' in this report refers only to the situation whereby the supply of skills or labour from within the Irish labour force is insufficient to meet demand. It is possible that a sufficient supply of skills or labour for an occupation in question may be found within the European Economic Area (EEA).

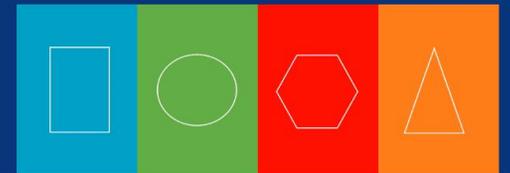
While the aim is to identify occupations for which shortages exist, further research is necessary to identify the cause of these shortages and to recommend the appropriate (if any) policy response.

The occupations for which shortages have been identified are highlighted and comments are made regarding the nature of the shortage (e.g. a skill shortage or labour shortage). The report highlights recent and current shortages but does not provide forecasts of skill shortages, unless it is implicit from the existing data.

There is an excess supply of labour in Ireland at present. While some skills shortages have been identified in this report, they remain confined to a relatively small number of posts, mostly requiring persons with specialist skills. It should also be noted that, with the exception of ICT skills, the magnitude of shortages is estimated to be relatively low, not greater than several hundred.

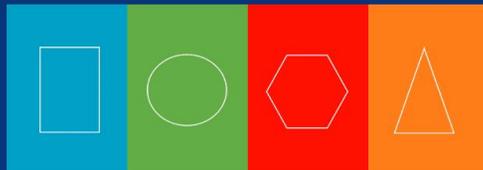
The analysis of employment was carried out by the SLMRU based on the QNHS data. When interpreting the data, the following should be borne in mind:

- the employment level for each occupation is expressed as an annual average (i.e. the average of four quarters in a calendar year)
- the trend analysis covers the four-year period: 2007-2011, unless otherwise specified
- the employment composition (i.e. age, gender etc.) is based on the most recent data, which is quarter 4 2011
- unless otherwise stated, annual changes year-on-year (y-o-y) cover the period quarter 4 2010 to quarter 4 2011.



The National Skills Bulletin 2012 is structured as follows:

- Section 1: presents an overview of general labour market trends, which includes employment, unemployment and participation rates, and the composition of the labour force
- Section 2: examines employment trends and the economic outlook by economic sector
- Section 3: presents employment by broad occupational group
- Section 4: provides employment trends and composition of employment by region
- Section 5: focuses on the supply of skills from the education and training system by level and field
- Section 6: examines the inflow of labour from non-EEA countries, Romania and Bulgaria through the various employment permit schemes
- Section 7: provides an overview of vacancies advertised through FÁS (FÁS Jobs Ireland), Irishjobs.ie, the Irish Times and the results of the latest SLMRU recruitment agency survey on difficult to fill vacancies
- Section 8: presents an analysis of employment for over 130 occupations across 17 occupational groups and highlights areas of shortage
- Section 9: focuses on unemployment, particularly in terms of gender, occupation, nationality, education and age.



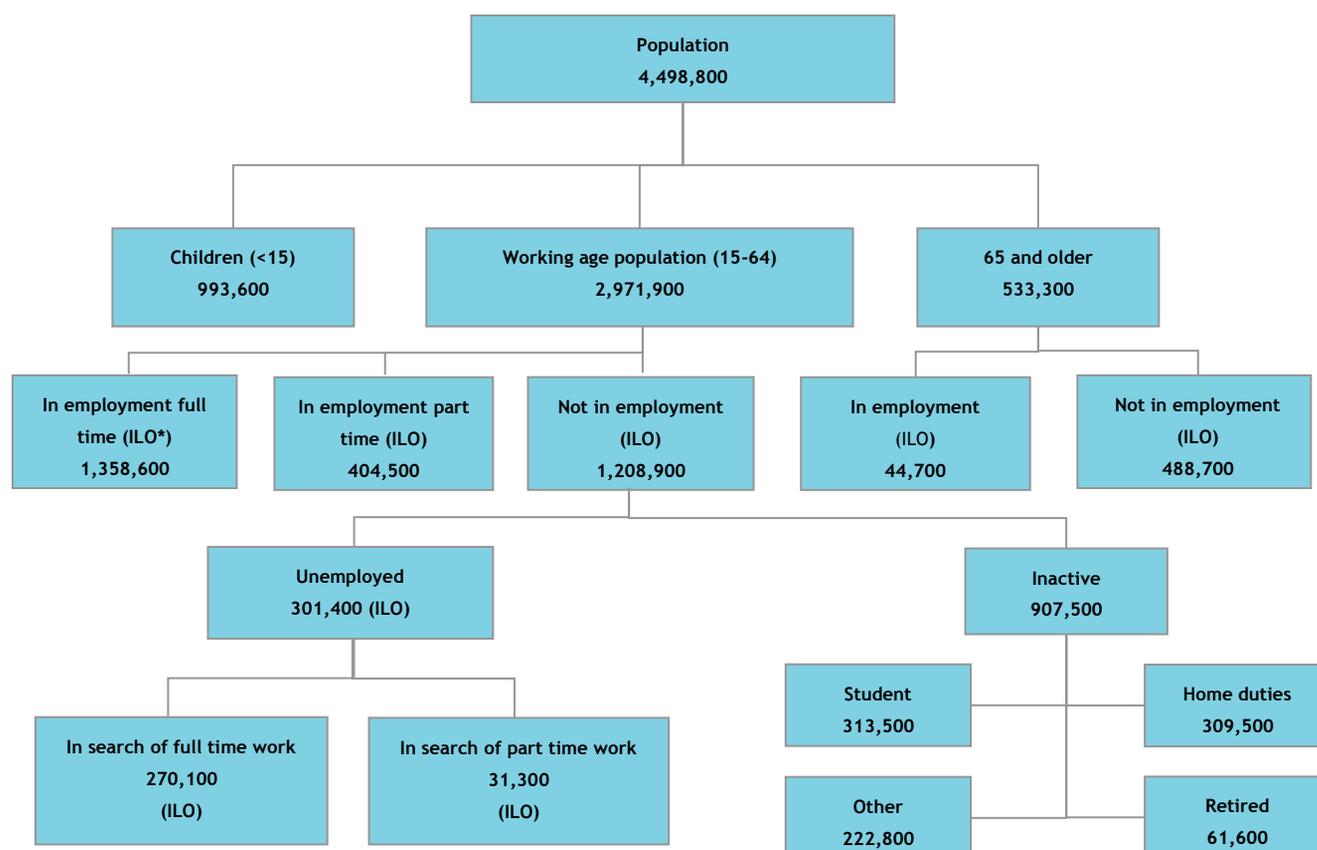
Section 1 General Labour Market Trends

1.1 General Population - Labour Market Status

There were almost 4.5 million persons residing in Ireland in quarter 4 2011 (Figure 1.1), which is approximately 15,000 more than in quarter 4 2010. Of the total population, approximately 3 million persons were aged 15-64 years (the working age

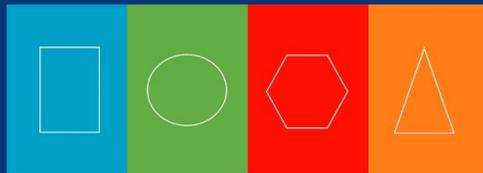
population). When compared with quarter 4 2010, there were almost 23,000 fewer persons of working age. The population aged less than 15 was estimated at just under 1 million persons, which was approximately 21,500 more than in quarter 4 2010. At the same time, the number of persons aged 65 and over was almost 533,500, representing a year-on-year increase of approximately 16,000.

Figure 1.1 Population by Age and Labour Status, October-December (Quarter 4) 2011



Source: SLMRU (FÁS) Analysis of CSO QNHS data

Note: Any observed discrepancies in the summations are due to the rounding of numbers.
* International Labour Organisation (ILO) definition of employment and unemployment.



Given these changes, the overall age dependency ratio¹¹ was 51.4%, which was more than one percentage point higher when compared with quarter 4 2010; the youth age dependency ratio has increased to 33.4%, while the older age dependency ratio has also increased to 17.9%.

Considering the working age population (persons aged 15-64), there were 1.76 million persons in employment. Of these, 1.36 million were in full-time employment and just over 400,000 in part-time employment. While the number of persons were in part-time employment remained effectively the same as one year ago, there was a decline of almost 16,500 in the number of persons working full-time.

The number of persons not in employment was estimated at 1.2 million, of whom approximately 900,000 were inactive and just over 300,000 were unemployed. Compared to quarter 4 2010, the number of inactive persons decreased, while the number of persons unemployed increased. Of the unemployed, 90% (270,000 persons) were seeking full-time work. Amongst economically inactive persons,¹² students were the largest group, numbering approximately 313,000. Over 60,000 persons in the 15-64 age group were retired, while it is estimated that almost 310,000 persons were engaged in home duties. Finally, there were approximately 223,000 persons inactive for other reasons.

¹¹ The age dependency ratios compare the non-working age population to those of working age in any given population. The dependency ratio is derived by expressing the non-working age population groups - young (aged 0 to 14 years) and old (aged 65 years and over) - as a proportion of the working age (15 to 64 years) population.

¹² The economically inactive are defined as persons who are not in employment or unemployed, i.e. not part of the labour force.

The inactivity rate for the 15-64 age group, was 30.5%, broadly in line with the figure recorded in quarter 4 2010. The overall economic dependency ratio (the number of inactive persons to every active person) in quarter 4 2011 was 1.49, somewhat higher than one year ago.

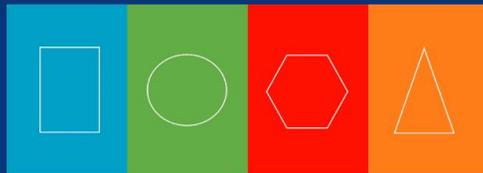
1.2 Labour Force, Employment and Unemployment

The Irish labour force averaged 2.11 million persons in 2011 (Figure 1.2). The trend of a shrinking labour force has continued, albeit at a slower pace: it declined by 0.6% and it was estimated that there were 25,500 fewer persons either at work or seeking work during 2011 when compared to 2010. Consequently, the participation rate declined to 60.3%, down from 60.9% in 2010.

At the same time, the number in employment averaged 1.81 million persons - approximately 38,000 fewer than in 2010. Consequently, the employment rate declined from 60.1% in 2010 to an average of 59.2% in 2011. Over the period 2007-2011, the employment rate decreased by ten percentage points, down from 69.2%, reverting to the level observed in 1998.

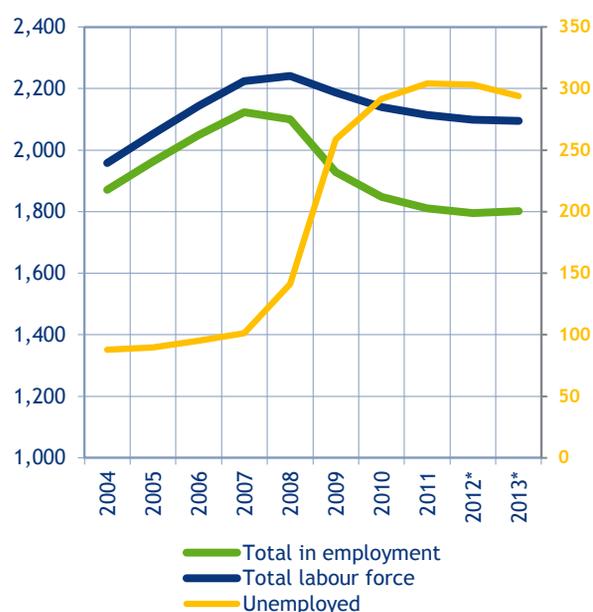
The annual unemployment rate averaged 14.4% in 2011. Over the period 2006-2011, the rate increased by 10 percentage points (Table 1.1). The total number of unemployed persons averaged 304,000 in 2011, which was an increase of 4.3% (or approximately 12,500 more) on the average number of persons seeking work in 2010.

The long-term unemployment rate reached 8.6% in quarter 4 2011, up from 7.6% observed a year ago. Approximately 182,000



unemployed persons (accounting for 60% of total unemployment) had been seeking work for at least 12 months.

Figure 1.2 Labour Force, Employment, and Unemployment (000s), Annualised Data 2004-2011



Source: SLMRU (FAS) analysis of CSO data (historical); Central Bank of Ireland, Quarterly Bulletin April 2012 (*forecasts for 2012 and 2013).

While the unemployment rate declined somewhat in quarter 4 2011 in relation to the previous quarter (reflecting both the small increase in employment and a larger decrease in the labour force), it remained stubbornly above 14% throughout the year, and it is not expected to fall below 14% in the short term (Table 1.1 and Figure 1.2). Equally, while employment grew in the fourth quarter of 2011, for the first time since quarter 4 2007, it is still expected to be lower on average in 2012 in relation to 2011.

Table 1.1 Participation, Employment and Unemployment Rates (%), 2006-2011

Year	Participation rate (%) (15+)	Employment rate (%) (15-64)	Unemployment rate (%) (15+)
2006	63.2	68.7	4.4
2007	64.0	69.2	4.6
2008	63.6	67.6	6.3
2009	62.0	62.2	11.8
2010	60.9	60.1	13.6
2011	60.3	59.2	14.4

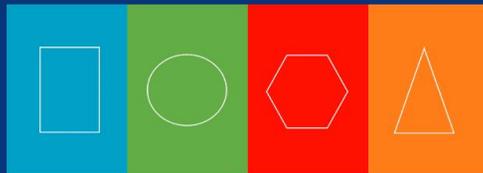
Source: SLMRU (FÁS) analysis of CSO data

Net migration remained negative for the third consecutive year, with the estimated number of persons leaving the State exceeding the number arriving by approximately 34,000 (Table 1.2).

Table 1.2 Migration Estimates (000s), 2006-2011

Year	Inward	Outward	Net migration
2006	107.8	36.0	71.8
2007	109.5	42.2	67.3
2008	83.8	45.3	38.5
2009	57.3	65.1	-7.8
2010	30.8	65.2	-34.5
2011	42.3	76.3	-34.1

Source: CSO, 2011, *Population and Migration Estimates: April 2011 & CSO Data Direct*.



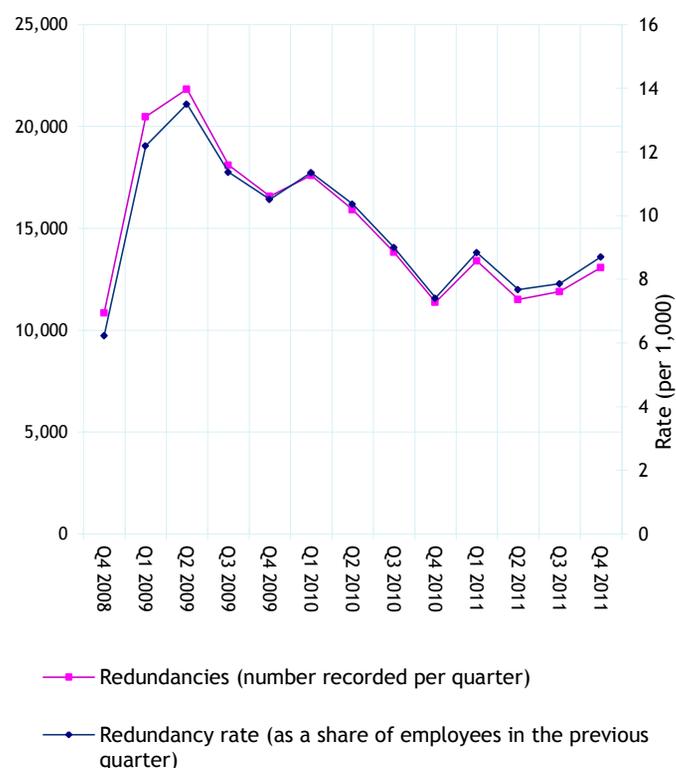
Between 2010 and 2011, the deterioration in the labour market indicators for the younger age cohorts was notable:

- the younger age groups were relatively more affected by outward migration, with those aged 20-34 being particularly adversely affected
- despite the growth in the overall population, it is estimated that the number of persons aged 20-34 declined by almost 44,000
- the number of 20-34-year-olds participating in the labour force declined by approximately 40,000
- the number of unemployed persons aged 20-24 declined, the only age cohort for which a decline occurred
- the decline in the labour force participation rate was the sharpest for those aged 20-24.

1.3 Redundancies

Economy-wide redundancy numbers and rates are depicted in Figure 1.3. Redundancies increased by almost 90% between 2008 and 2009; the number was particularly high during the first half of 2009, declining gradually thereafter. However, there was an increase observed in quarter 4 2011, when just over 13,000 redundancies were recorded, yielding a redundancy rate of 8.7 per 1,000 employees.

Figure 1.3 Redundancy Numbers and Rates, Quarter 4 2008-Quarter 4 2011



Source: SLMRU (FÁS) analysis of CSO data; SLMRU (FÁS) analysis of Department of Enterprise, Jobs and Innovation/Department of Social Protection data on redundancies.

1.4 Employment Composition

Figure 1.4 shows the gender distribution of employment in quarter 4 2011. Males comprised 53.5% of the workforce: their share of employment was the same as that observed a year ago.

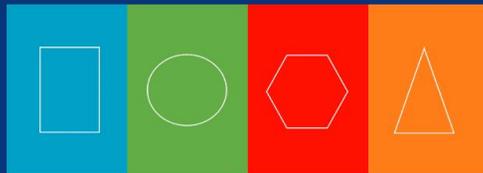
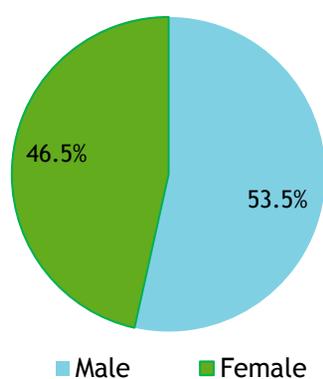


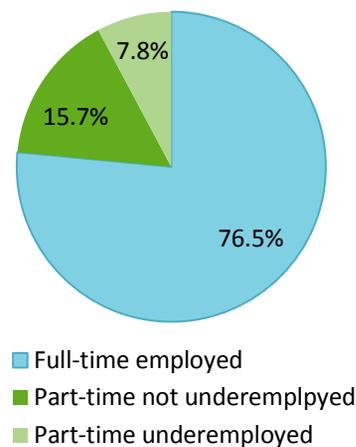
Figure 1.4 Employment by Gender (%), Quarter 4 2011



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

Figure 1.5 depicts the breakdown between full-time and part-time employment in quarter 4 2011. Those working full-time amounted to 76.5% of total employment. At 23.5%, the share of part-time employment in quarter 4 2011 remained effectively unchanged year-on-year. However, there was an increase in the share of persons who were working part-time, but were underemployed. Their share grew from one quarter to one third of all part-time employment between quarter 4 2010 and quarter 4 2011. In absolute terms, the number of persons working part-time and underemployed was approximately 140,000, which was about 28,000 more than in quarter 4 2010. The increase in involuntary part-time employment was relatively stronger for males than for females.

Figure 1.5 Employment by Employment Type (%), Quarter 4 2011



Source: SLMRU (FÁS) analysis of CSO data

Figure 1.6 details the distribution of employment by employment status in quarter 4 2011. Employees comprised almost 84% of the total workforce. Consistent with the overall decline in employment, all categories declined in relation to the corresponding period a year ago. The largest decline in both relative and absolute terms was observed for the self-employed with employees. There were almost 6,000 fewer persons in this category than in quarter 4 2010. Those self-employed without paid employees also declined, by about 5,500 persons, or 3%. The decline was relatively smallest for employees - there were almost 3,500 fewer persons falling into this category when compared with quarter 4 2010. The rates of decline were more moderate when compared with those observed last year, again, consistent with a more moderate decline in employment observed year-on-year. There was almost no change in the number of persons classified as assisting relatives.

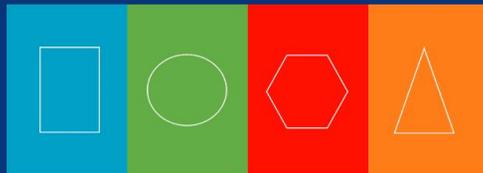
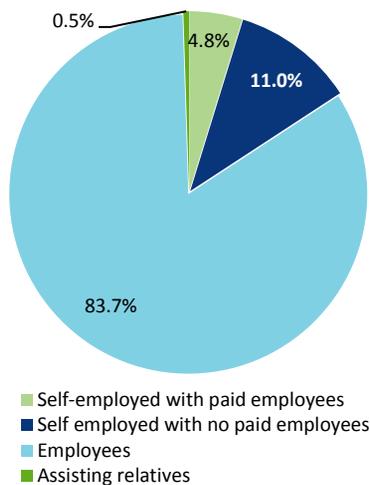


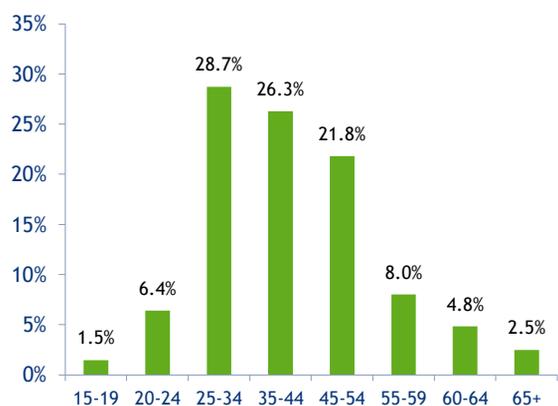
Figure 1.6 Employment by Employment Status (%), Quarter 4 2011



Source: SLMRU (FÁS) analysis of CSO data

With regards to the age distribution of employment, those aged 25-34 were the largest category in quarter 4 2011, with almost 29% of employment falling into this age group (Figure 1.7). However, the share of those younger than 35 in total employment declined by 1.5 percentage points when compared to quarter 4 2010. At the same time, the share of those aged 55 and above remained effectively unchanged.

Figure 1.7 Employment by Age (%), Quarter 4 2011

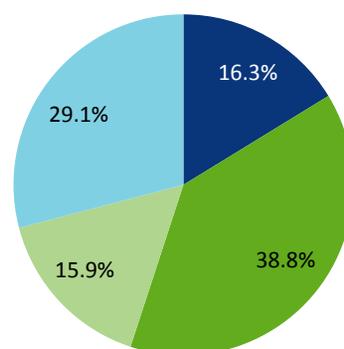


Source: SLMRU (FÁS) analysis of CSO data

Figure 1.8 shows the education distribution of employment for the working age population (persons aged 15-64) in quarter 4 2011.

Approximately 45% of employment was in the third level category: 29% holding an honours degree or equivalent (a two percentage-point rise on the share in quarter 4 2010) and 16% with a non-honours degree (a 1.3 percentage-point drop). Almost 39% of persons in employment held higher secondary/FET qualifications, a marginal increase on the share observed for quarter 4 2010. The share with below higher secondary/FET qualifications was just above 16% - a decline of one percentage point.

Figure 1.8 Employment by Education (Highest Level Achieved) (%), Quarter 4 2011

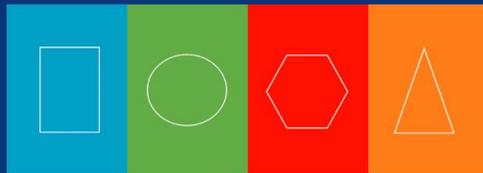


■ Lower Secondary and Below
 ■ Higher Secondary/FET
 ■ Third Level Certificate/Below Honours Degree
 ■ Third Level Honours Degree or Above

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

*Note: Data relates to the 15-64 age group in employment; observations that were not classifiable in terms of the highest level of education were excluded from analysis.

In quarter 4 2011, non-Irish nationals accounted for 12.5% of employment in Ireland. Figure 1.9 shows the participation,

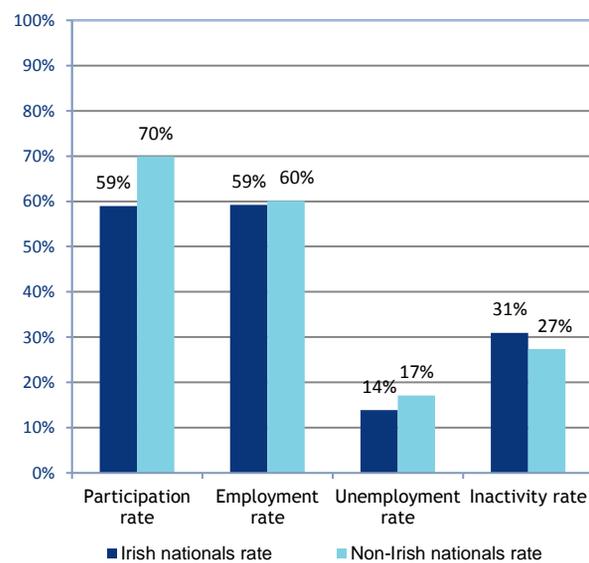


employment, unemployment and inactivity rates for Irish and non-Irish nationals.

In quarter 4 2011:

- non-Irish nationals had a higher participation rate than Irish nationals (70% compared to 59%)
- non-Irish nationals had a lower inactivity rate (27.3% compared to 31%).
- the unemployment rate for non-Irish nationals was higher than that for Irish-nationals (17.1% compared to 13.9%)
- the non-Irish nationals' employment rate was one percentage point higher than that for Irish-nationals.

Figure 1.9 Participation, Employment, Unemployment and Inactivity Rates by Nationality, Quarter 4 2011



Source: SLMRU (FÁS) analysis of CSO data

1.5 National Skills Strategy: Progress to Date

The National Skills Strategy (NSS) set out the relevant policy targets regarding the educational attainment of the labour force.

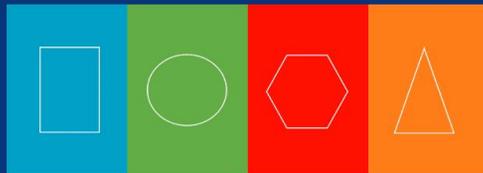
One of the targets is to ensure that almost one half of the labour force has third level qualifications. The analysis suggests that further improvements regarding the educational profile have been made during 2011: it is estimated that 42% hold third level qualifications, 40% have obtained higher secondary/FET qualifications, while the proportion of those holding lower secondary or below has dropped to just under one fifth for the first times since tracking of the progress towards the NSS targets began.

Figure 1.10 Educational Attainment of the Labour Force and the NSS Vision for 2020



Source: SLMRU (FÁS) analysis of CSO data

*Note: Based on those in labour force (15-64) stating their highest level of education attained.

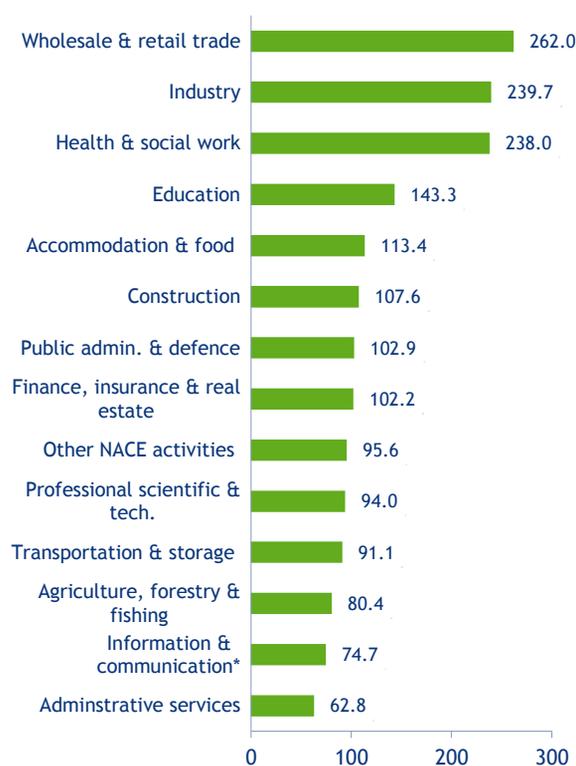


Section 2 Employment by Economic Sector

2.1 Employment

Figure 2.1 depicts employment by broad economic sectors in quarter 4 2011. Despite contracting, the wholesale and retail sector remained the largest, providing employment to 262,000 persons in the last quarter of 2011. There were almost 240,000 persons working in industry, which comprises all manufacturing segments, utilities and extraction.

Figure 2.1 Employment by Broad Economic Sector (000s), Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

*Note: The information and communication sector includes computer programming, telecommunications, information services, publishing and broadcasting; it does not include ICT equipment manufacturing or the wholesale of computers, computer peripheral equipment and software.

The health sector was the third largest, with 238,000 persons engaged; this was followed by the education sector, with 143,300 persons engaged.

2.1.1 Employment Change (2006-2011)

Over the period 2006-2011, the number of persons in total employment decreased by almost 240,000, falling to the level observed in 2003. The sectors where employment was particularly adversely affected were construction, agriculture and industry (Figure 2.2). These sectors lost approximately three fifths, one quarter and one fifth of their 2006 levels of employment respectively. The accommodation and food services sector lost one in ten of its workforce, while a range of other NACE activities¹³ lost about one in twenty. At the same time, the health sector increased by 17%, while gains of smaller magnitudes were observed for the education, information and communication, and financial services sectors.

Between quarter 4 2010 and quarter 4 2011, the largest change in employment in absolute terms was observed in the education sector - a decline of 9,000.

¹³Other NACE activities comprise: creative arts and entertainment, cultural activities, sports, amusement and recreation activities, gambling and betting activities, activities of membership organisations, repair of personal and household goods, a range of personal service activities including employment of domestic personnel, activities of extraterritorial organisations and bodies (e.g. diplomatic and consular missions' activities, World Bank activities, etc.) and other not stated activities.

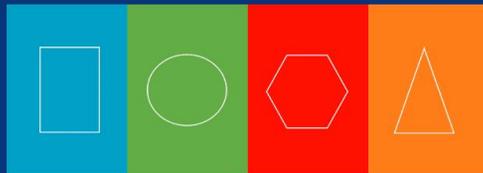
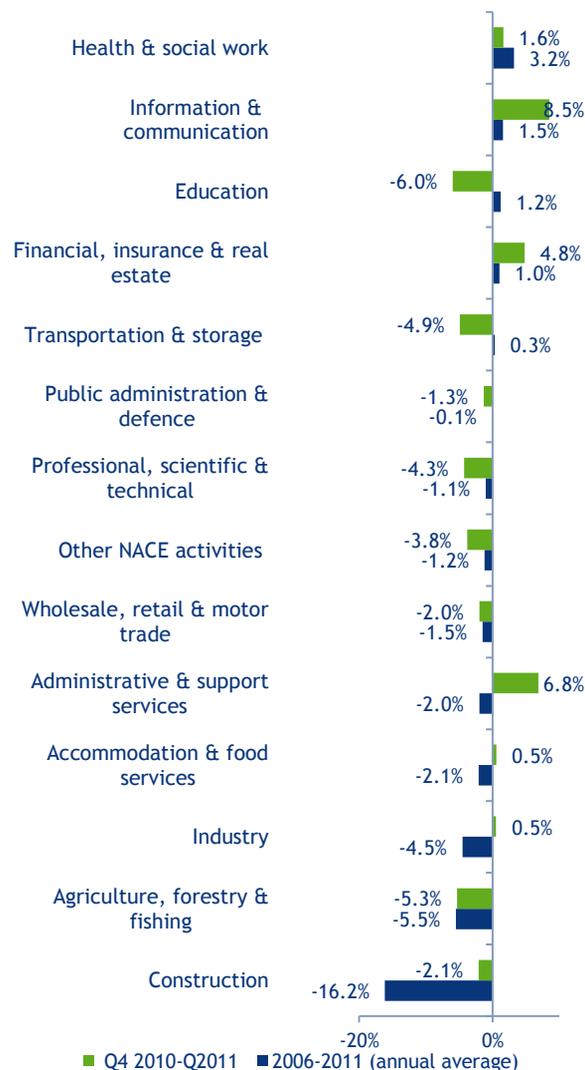


Figure 2.2 Employment Change (%) by Economic Sector: 2006-2011 and Q4 2010-Q4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

*Note: The information and communication sector includes computer programming, telecommunications, information services, publishing and broadcasting; it does not include ICT equipment manufacturing or the wholesale of computers, computer peripheral equipment and software.

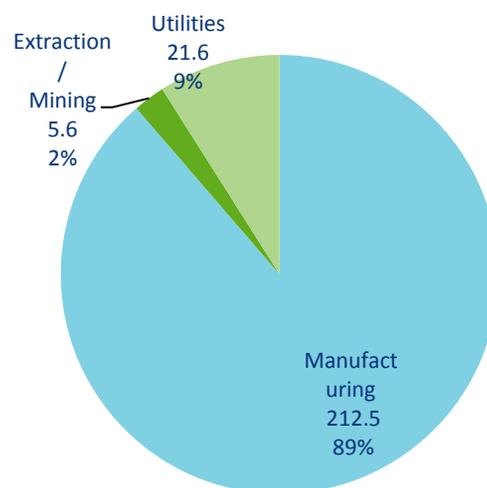
Relatively sharp declines were observed in the transportation & storage and professional, scientific and technical services. On the other hand, the information and communications sector expanded strongly, by 8.5%, well ahead

of its medium term growth rate of 1.5% observed for the period 2006-2011.

Industry

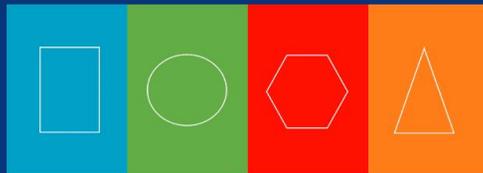
Industry, comprising of all productive industries in manufacturing, extraction and other mining activities and a range of utilities (Figure 2.3), was the second largest sector in the domestic economy, employing almost 240,000 persons, or approximately one in eight persons in employment in quarter 4 2011. Over the period 2006-2011, employment in this sector declined at an annual average rate of 4.5%, with approximately 61,000 fewer persons in employment in 2011 in relation to the level of employment observed during 2006.

Figure 2.3 Industrial Employment by Sector (000s and %), Quarter 4 2011



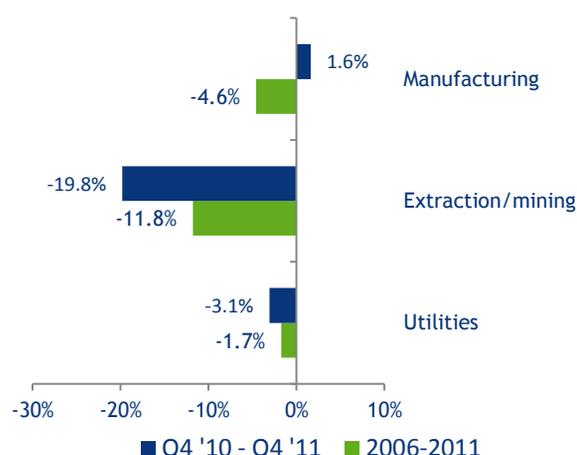
Source: Analysis by FÁS (SLMRU) based on CSO data

While fewer persons on average were employed in the industry sector in 2011 compared to 2010, there was a slight increase in employment between quarter 4 2010 and



quarter 4 2011. This increase was due primarily to employment in the manufacturing segment as employment in utilities and extraction declined (Figure 2.4).

Figure 2.4 Industrial Employment Change within the Sector: Quarter 4 2010-Quarter 4 2011 and 2006-2011 (relative change, %)



Source: Analysis by FÁS (SLMRU) based on CSO data

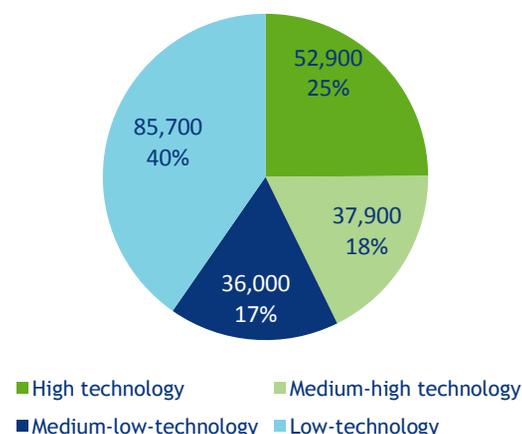
Employment in mining and extraction activities has been contracting over the last three years: it declined from its peak of almost 10,000 persons engaged in quarter 4 2008 to just above 3,500 in quarter 4 2011.

Over the period 2006-2011, employment in utilities (electricity, gas, water, sewerage and waste) declined at an annual average rate of 1.7%. There were, on average, approximately 21,500 persons working in utilities during 2011, which is 2,000 fewer when compared with 2006. Over the period quarter 4 2010-quarter 4 2011, within this sector, the largest change in employment (a decline of a quarter) was recorded in waste collection, treatment and disposal. In 2011, manufacturing accounted for 11.5% of total national employment and approximately 30%

of GDP. Over the period 2006-2011, employment in manufacturing contracted by 54,000, or by 4.6% on average annually. However, between quarter 4 2010 and quarter 4 2011, there has been an increase in employment in manufacturing of 1.6% (or almost 3,500 additional persons engaged).

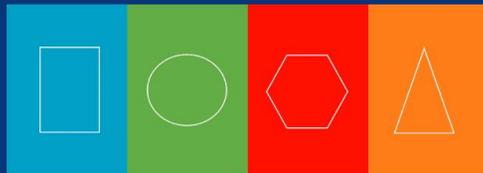
Manufacturing can be categorised in terms of its technological intensity into high, medium-to-high, medium-to-low and low technology segments. The high technology segment accounted for a quarter of total manufacturing employment, while the low technology segment¹⁴ accounted for 40% of total manufacturing employment.

Figure 2.5 Manufacturing Employment by Technological Intensity, Quarter 4 2011 (000s and %)



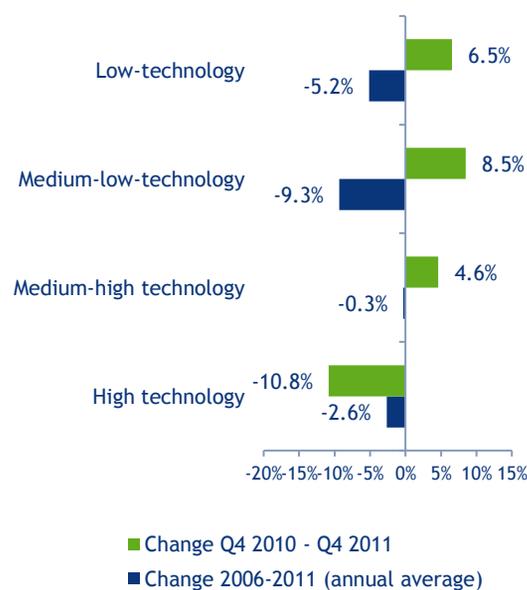
Source: Analysis by FÁS (SLMRU) based on CSO data

¹⁴ This segment of manufacturing includes the manufacture of food products, beverages, tobacco products, textiles, wearing apparel, leather and leather products, wood and wood products of wood, paper and paper products, printing, furniture, other manufacturing activities, and the reproduction of recorded media. The medium-low technology segment includes the manufacture of coke and refined petroleum products, rubber and plastic products, other non-metallic mineral products, basic metals, fabricated metal products (except machinery and equipment, and the installation of machinery and equipment).



Over the period quarter 4 2010-quarter 4 2011, employment in low technology and medium-to-low technology manufacturing increased by 6.5% and 8.5%, respectively (Figure 2.6). This represented a reversal of the medium term trend, when employment has been declining at an average annual rate of 5.2% and 9.3% respectively. Within low technology manufacturing, the food and beverages industry was the only segment to expand (+13%), which was more than enough to cancel out the decline in the remaining activities. Medium-to-high manufacturing activities also expanded (+4.6%), this resulted in the annual average number of persons employed reverting back to the 2006 level.

Figure 2.6 Manufacturing Employment by Technological Intensity - Change over the period Q4 2010-Q4 2011 and 2006-2011 (%)

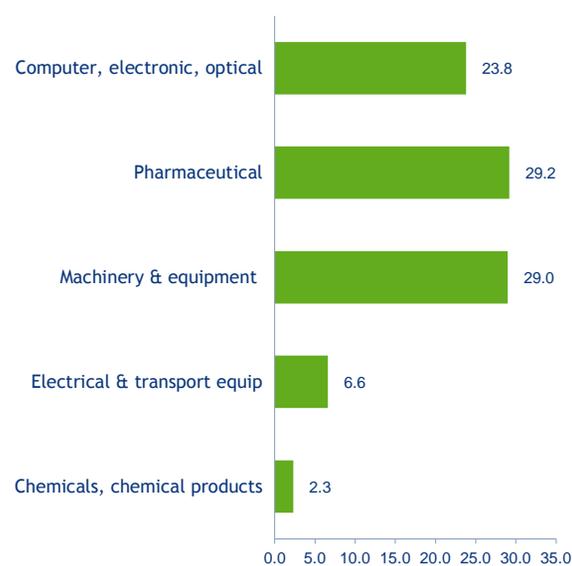


Source: Analysis by FÁS (SLMRU) based on CSO data

In 2011, high technology industries provided employment for 54,000 on average, which is

5% lower than in 2010¹⁵. Within high technology manufacturing, approximately 30,000 persons were employed in the pharmaceutical industry and over 23,000 persons were employed in the manufacture of computer, electronic and optical products (Figure 2.7).

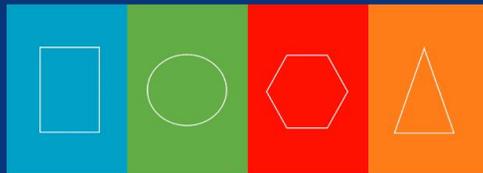
Figure 2.7 High & Medium-High Technology Manufacturing Employment (000), Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

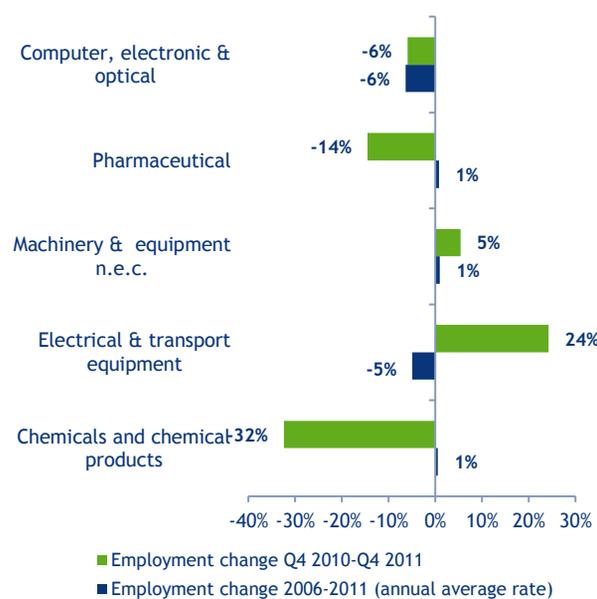
Over the period 2006-2011, pharmaceutical, chemical, and machinery & equipment manufacturing expanded by a 1%, while computer, electronic & optical manufacturing and machinery & electrical equipment manufacturing declined by 6% and 5% respectively. Both machinery & equipment and electrical & transport equipment expanded over the period quarter 4 2010-quarter 4 2011, by 5% and 24% respectively,

¹⁵ However, the decline was greater between quarter 4 2010 and quarter 4 2011 (-11%).



while both the pharmaceutical and chemical segments contracted (Figure 2.8).

Figure 2.8 High and Medium-High Technology Manufacturing Employment - % Change



Source: Analysis by FÁS (SLMRU) based on CSO data

Construction

Following sharp declines since the peak in 2007, the rate of decline slowed to 2.1% (or 12,500) between quarter 4 2010 and quarter 4 2011. Over the period 2006-2011, the number of persons engaged in the sector declined by in excess of 150,000. Consequently, its share in national employment declined to just below 6% in quarter 4 2011, which was less than half of its share observed five years previously.

Agriculture

Employment in agriculture has been steadily declining over the last decade and this downward trend continued over the period 2006-2011, during which it contracted at an

annual average rate of 5.5%. This was the second fastest rate of contraction observed during the five-year period. The decline was observed in forestry and logging, fishing and aquaculture, as well as in crop and animal production. The sector accounted for approximately 4.5% of national employment in 2011.

Services

Approximately 1.1 million persons were employed in the provision of services in quarter 4 2011. This was just 0.4% less than in quarter 4 2010.

Employment in knowledge intensive services (which includes sectors such as information and communication, finance, insurance, legal and accounting activities, engineering, R&D, marketing, public administration and defence, education, health, arts and entertainment) averaged 815,000 in 2011, representing an increase of 1.2% per annum over the period 2006-2011, but a slight decline of 0.6% (8,500 persons) was recorded between quarter 4 2010 and quarter 4 2011 (Figure 2.9).

While, employment in less knowledge-intensive services (comprising wholesale and retail, transport, accommodation and food, office administration, real estate, and leasing services) declined by 1% on average annually between 2006 and 2011, it remained almost unchanged between quarter 4 2010 and quarter 4 2011.

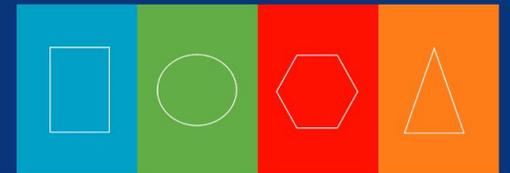
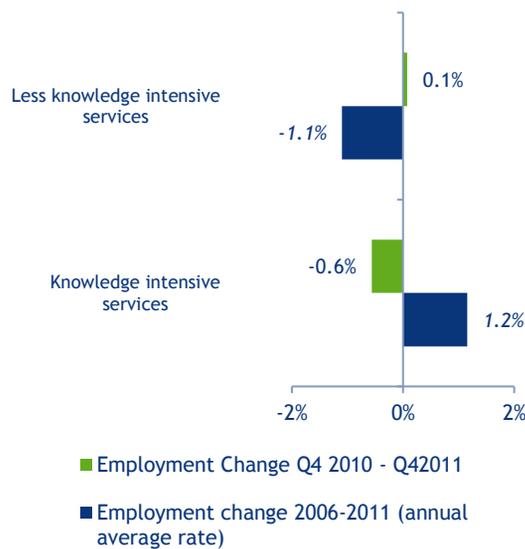


Figure 2.9 Services Sector Employment Change by Knowledge Intensity, (%)



Source: Analysis by FÁS (SLMRU) based on CSO data

Wholesale and Retail Trade

In 2011, the wholesale and retail sector accounted for 14.5% of national employment, which was marginally higher than in 2006. While the sector contracted over the period 2006-2011, by an annual average rate of 1.5%, this decline was slower than the economy-wide decline observed during this period. Between quarter 4 2010 and quarter 4 2011, the sector contracted by a further 2%, with the most pronounced decline recorded in the wholesale segment (-5.4%).

There were approximately 179,000 persons employed in retail trade (excluding motor trade) in quarter 4 2011, which was almost 3,000 fewer than a year ago, a decline of 1.6% in relative terms.

Health

In 2011, the health sector accounted for just over 13% of total national employment, compared to 10% in 2006. Over the period 2006-2011, the health sector expanded at an average annual rate of 3.2%. This translated into 34,000 additional persons engaged. Employment growth slowed during 2011, with employment growing by 1.6% between quarter 4 2010 and quarter 4 2011.

Within the sector, employment in residential care activities expanded strongly, increasing by 5.2% between quarter 4 2010 and quarter 4 2011 to reach 25,000. Over the same period, employment in social work remained static, while human health activities expanded by 1.5%.

Education

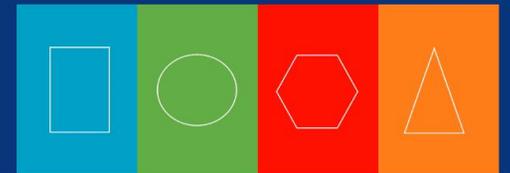
Having expanded continuously during the period 2006-2011, at an annual average rate of 1.2%, the sector recorded a decline in 2011. There were, on average 6,000 fewer persons engaged in 2011, which amounted to a 4% decline, when compared with a year previously. The total employment in the last quarter of 2011 was 143,000.

Accommodation and Food Services

Over the period 2006-2011, employment in accommodation and food services declined by 12,000, or 2.1% on average, per annum. Most of the decline occurred during the first half of 2011. However, employment during the second half of 2011 increased, with a 0.5% rise occurring between quarter 4 2010 and quarter 4 2011.

Public Administration and Defence

Over the period quarter 4 2010-quarter 4 2011, employment in public administration



and defence contracted by 1.4%. This meant that the employment growth for the 2006-2011 turned negative, albeit marginally.

Professional, Scientific and Technical Activities

In quarter 4 2011, there were 94,000 persons employed in professional, scientific and technical activities, which is 4.3% fewer than in the preceding year. While scientific research and development expanded strongly albeit from a relatively small base, legal and accounting services combined contracted (by approximately 6,500) between quarter 4 2010 and quarter 4 2011.

Financial, Insurance and Real Estate Services

In quarter 4 2011, total employment in financial, insurance and real estate services was approximately 102,000, which is almost 4.8% higher (4,500 more persons) when compared to quarter 4 2010.

The largest segment within the sector, financial service activities (banking), employed on average approximately 62,000 persons in 2011. This was marginally higher than the average number in employment during 2010 and broadly in line with the medium term growth rate of 1.4% recorded over the period 2006-2011.

Employment in insurance, reinsurance and pension funding was estimated at just above 21,000 in quarter 4 2011, remaining unchanged year-on-year.

In quarter 4 2011, there were approximately 10,700 persons engaged in real estate activities, which was an increase of almost 11% in relation to quarter 4 2010. The annual average level of employment in this segment

in 2011 was equivalent to that observed in 2006.

The number of persons engaged in activities auxiliary to financial services and insurance activities was estimated at 8,000, unchanged in relation to the level observed in quarter 4 2010.

Transportation and Storage

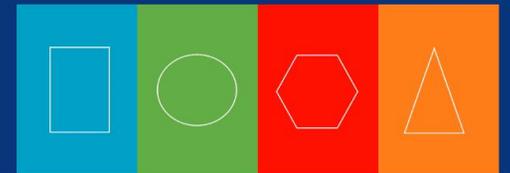
The transportation and storage sector comprises land transport, postal & courier services, and air transport. The total number employed averaged 93,700 persons during 2011. This level of employment was almost identical to that observed during 2006. Employment barely expanded with a medium term growth rate of 0.3% per annum over the period 2006-2011.

The largest segment was land transport, which employed approximately 49,000 persons in quarter 4 2011. There was no change in the employment level year-on-year. Between quarter 4 2010 and quarter 4 2011, the numbers engaged in other activities all declined, with the strongest contraction in relative terms occurring in the water and air transport segments.

Information and Communications

The information and communication sector¹⁶ employed almost 75,000 persons in quarter 4 2011, an 8.5% increase (almost 6,000 more) when compared to quarter 4 2010. Over the period 2006-2011, the sector recorded an average increase of 1.5% per annum.

¹⁶ The information and communication sector includes computer programming, consultancy and related activities; telecommunications; information service activities; publishing; programming and broadcasting; and motion picture, video & television programme production, sound recording and music publishing activities.



Within the sector, computer programming, consultancy and related activities was the largest segment. It employed approximately 37,500 persons in quarter 4 2011, which is a 4.4% increase when compared to quarter 4 2010. This rate was higher than the medium term annual average rate of 1.7% recorded for the period 2006-2011.

Telecommunications employed approximately 20,000 persons in quarter 4 2011. This is an increase of almost 2,500 year-on-year which returned employment to the level recorded in 2006.

The remainder of employment was spread almost equally between publishing (employing approximately 3,500); motion picture, video and television programme production, sound recording and music publishing (employing just fewer than 4,500); broadcasting (employing just above 4,500) and information service activities (employing approximately 4,500) in quarter 4 2011.

Administrative and Support Service Activities

Employment recovered somewhat in administrative and support services during 2011 and averaged just above 64,000. However, due to declines observed during the previous two years, the medium term growth rate was negative with employment contracting by 2% per annum over the period 2006-2011.

Employment in services to buildings and landscape activities, the largest segment within this sector, averaged 25,000 in 2011, which is an increase of approximately 3,000 in relation to the average employment level in 2010. However, given the decline that occurred during the previous two years, the

level of employment in 2011 was about 1,000 above that observed during 2006.

Over the period 2006-2011, employment in other property related activities (namely renting and leasing) declined by almost 8.5% per annum and in 2011 stabilised at a level that was well below that observed in 2006.

Over the period 2006-2011, employment in security related activities declined by an annual average of 4%; the rate of decline between quarter 4 2010 and quarter 4 2011 was even higher at 5%.

There were some signs of recovery in employment related activities, while there was effectively no change in the numbers at work in travel related activities over the period quarter 4 2010-quarter 4 2011.

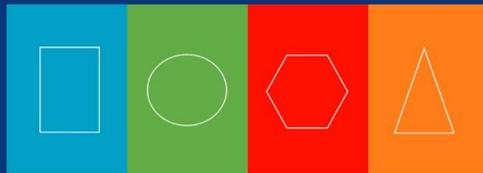
Other NACE activities

This sector comprises a diverse range of activities such as various personal services, sport, and amusement & recreation activities. It provided employment for approximately 95,500 persons in quarter 4 2011, approximately 3.8% less (3,700 fewer) persons compared to the same period in the previous year.

2.1.2 Economic outlook by sector

Global Context and Outlook

Global output expanded by just below 4% in 2011 - a marked slowdown in relation to 2010 when it expanded by 5.25%. A growth rate of 3.5% is projected for 2012. However, at 1.4%, advanced economies are expected to grow slower (owing largely to the anticipated contraction projected for the euro area and



weak growth in the UK) compared to a 5.7% growth rate projected for the emerging economies.¹⁷

The main corollaries of the above are the reduction in global demand, a deceleration of world trade flows and decreasing export opportunities. The growth rate for global trade flows of goods and services is projected to decelerate in 2012 to 4%.¹⁸

Domestic Context and Outlook

In 2011, Ireland's GNP declined by 2.5% although GDP actually grew by 0.7%.¹⁹ GNP is expected to contract further by 0.7% in 2012. Although this is a smaller decline than that recorded for 2011, it is the main reason for the expected decline in employment of 0.8% for 2012 (Figure 2.10).

The factors adversely affecting domestic demand include fiscal policy measures necessary to correct the Exchequer finances (which adversely affect consumer spending) and the on-going issues regarding access to finance (adversely affecting the ability of domestic businesses to access the finance necessary for their operations). Irish small-medium enterprises (SMEs) continued to face a tighter credit supply over the period 2007-

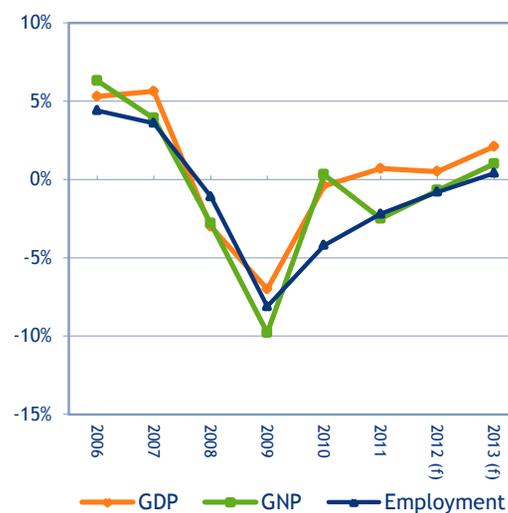
¹⁷ The Euro area economy is expected to decline by 0.3% (IMF World Economic Outlook Update (January, 2012 and April, 2012)).

¹⁸ World Trade Organisation (WTO); refers to world trade volumes.

¹⁹ While Gross Domestic Product (GDP) does represent the output (goods and services) of the country, it does not account for the Net Factor Income from the rest of the world - NFI is the difference between investment income (interest, profits etc.) and labour income earned abroad by Irish resident persons and companies (inflows) and similar incomes earned in Ireland by non-residents (outflows). GNP (Gross National Product) is a better measure of the value added accruing to residents of the country - GNP is now considerably lower than GDP (the difference between the two measures has widened during the recession) because NFI is negative; income flows to non-residents, especially profits and dividends of foreign direct investment enterprises based in Ireland have become increasingly volatile.

2011 when compared to their European counterparts.²⁰

Figure 2.10 Economic Growth and Employment Change 2006-2013



Source: CSO Quarterly National Accounts; Central Bank of Ireland, Quarterly Bulletin April 2012; SLMRU (FÁS) analysis of CSO data.²¹

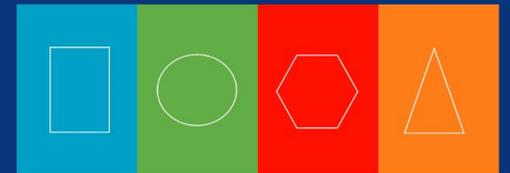
Exports of goods and services increased in both 2010 and 2011 in volume terms - increasing by 4.2% and 3.4% respectively.²²

However, the scope for further growth in exports is set to become more challenging in the short term, given the anticipated slowdown in global growth and trade volumes. While merchandise exports volumes are still expected to grow in 2012, they are projected to decelerate compared to 2011. At the same time, there is a concern over Ireland's falling

²⁰ Credit Access for Small and Medium Firms: Survey Evidence for Ireland; Access to Finance survey carried out by the Central Statistics Office (CSO, 2011, Access to Finance, 2007 and 2010).

²¹ Based on Gross Value Added at Constant Factor Cost by Sector of Origin and Gross National Income at Constant Market Prices (chain linked to 2009); Note: data refers to year-on-year percentage change; 2006-2011 is actual change (GDP & GNP figures are based on constant market prices, chain linked annually and referenced to the year 2009); 2012-2013 is forecasted change.

²² CSO Trade Statistics, April 2012.



market share of merchandise exports.²³ Services exports, buoyed by relatively strong services-related foreign direct investments (FDI), proved resilient during the second half of 2011 and the first quarter of 2012, and are expected to outpace merchandise exports in 2012 and 2013.²⁴

Recent improvements in national cost competitiveness remain a critical factor in supporting the export sector. Ireland's Harmonised Competitiveness Index (HCI) fell by over 10% in 2010 and has continued to do so during 2011, albeit at a slower pace,²⁵ signalling a significant improvement in cost competitiveness.²⁶ While cost competitiveness continues to remain a critical factor, other issues, namely exchange rate movements, enhanced competition and productivity growth, are also likely to become increasingly relevant in the short-to-medium term.²⁷

As indicated above, Ireland remains attractive for foreign direct investments (FDI). IDA Ireland reported a record year in 2011 in this regard, with 148 new investments (creating over 13,000 new jobs) and a 30% increase in the number of companies investing in Ireland for the first time.²⁸ In addition, the IDA expects a strong short-term pipeline.²⁹ FDI inflows are expected to remain strong as

investors in general maintain confidence in Ireland as a place to do business.³⁰

Recent policy initiatives which are expected to positively impact on the enterprise sector include those dealing with:

- credit access and additional funding for firms (e.g. a new Development Capital Scheme, aimed at addressing a funding gap for mid-sized indigenous companies with significant growth prospects, Temporary Partial Credit Guarantee Scheme to aid SMEs, adoption of the Code of Conduct for Business Lending to SMEs and the establishment of the Credit Review Office).³¹
- support for labour intensive sectors - the reduction in the lower rate of Value Added Tax for the accommodation & food sector; removal of air travel tax for the tourism sector.³²
- Initiatives promoting competitiveness and / or reducing labour costs - e.g. the reduction in employers' PRSI for relatively low paid workers
- Tax measures: Foreign Earnings Deduction, designed to encourage the expansion into emerging markets by providing a targeted tax reduction for temporary assignments to BRICS countries (i.e. for exporters targeting the BRIC countries (Brazil, Russia, India and China) and South Africa); A Special Assignee Relief Programme (SARP) seeking to reduce the cost to employers of assigning skilled individuals from abroad to take up positions in the Irish based operations of their employer.³³

²³ Considering its export performance relative to total world exports, it is estimated that Ireland lost export market share in both 2010 and 2011. Export performance also deteriorated in the run-up to the crisis, in tandem with losses in cost competitiveness. (OECD Economic Surveys: Ireland, October 2011; URL: <http://www.oecd.org/dataoecd/8/17/48861848.pdf>)

²⁴ Central Bank of Ireland, Quarterly Bulletin 02, 2012.

²⁵ European Central Bank.

²⁶ The fall in relative unit labour costs for the period 2007-2010 is estimated at 9.6%; the annual decline in unit labour costs for 2010 is estimated at 6.1% (Central Bank of Ireland, 2011, Quarterly Bulletin 01).

²⁷ Central Bank of Ireland, Quarterly Bulletin 01, 2012

²⁸ IDA Ireland, End of Year Statement 2011.

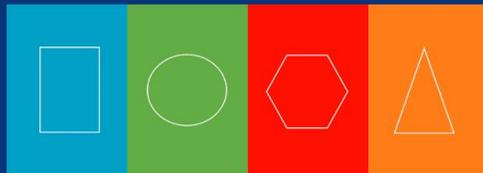
²⁹ IDA Ireland, End of Year Statement 2011.

³⁰ Investing in Ireland: A survey of foreign direct investors, Economic Intelligence Unit, 2012.

³¹ Department of Finance, Budget 2012. URL: <http://budget.gov.ie/budgets/2012>

³² Government of Ireland, Department of Finance Jobs Initiative, May 2011; DJEI, 2012 Action Plan for Jobs.

³³ Budget 2012, Department of Finance.



Among the supply side initiatives, Pathways to Work is particularly noteworthy, not least for its primary focus on long term unemployment, which has surged during the recession.³⁴

Industry: Manufacturing

Having expanded strongly in 2010, growth in manufacturing slowed in 2011. Nevertheless, in terms of output volume, it exceeded the level recorded in 2007. The most recent indicators for manufacturing suggest that the level of activity will remain flat in 2012.³⁵ However, there are uneven prospects across different segments in the short-to-medium term.

The food and drink segment particularly benefited from strong global demand, with exports increasing by 12% - a considerably higher rate than that for total merchandise exports.³⁶ While the expectations for food and drink exports in 2012 remain positive,³⁷ there is uncertainty regarding the economic outlook in the main export destinations, global commodity prices, and exchange rate movements. Supported by the improvements in cost competitiveness and expected FDI inflows, the sectoral outlook continues to be favourable for certain activities within the machinery & equipment and high technology segments. On the other hand, employment is expected to continue to decline in some more traditional segments, namely the textile, wood and paper industries.

³⁴ Pathways to Work, Department of Social Protection, February 2012. URL: <http://www.welfare.ie>.

³⁵ Purchasing Managers' Index (PMI).

³⁶ In value terms, these exports reached 8.85 billion euro in 2011 (data is based on the first nine months of 2011, (CSO, Bord Bia).

³⁷ The annual Bord Bia industry survey, completed in late December 2011, showed increased optimism among food and drink manufacturers across all categories regarding the year 2012, while approximately 80% of exporters saw their prospects for the year as good or very good (Bord Bia (Irish Food Board), 2012, Export Performance & Prospects: Irish Food, Drink and Horticulture 2011-2012, URL: <http://www.bordbia.ie>).

Industry: Utilities and Extraction

The utilities and extraction segment is expected to be primarily affected by various policy decisions aiming to promote structural reform, investment, and the achievement of relevant targets (e.g. renewable energy targets). The New ERA plan proposed an increased focus on infrastructure (particularly water supply), energy (clean, renewable energy) and broadband access across the country.³⁸ In addition, various relevant policy targets set to provide an impetus for growth in the energy sector, mostly related to renewable energy, have already been adopted.³⁹

While some infrastructure projects which are important for long term competitiveness offer a potential for growth (e.g. gas storage and Liquefied Natural Gas facilities, namely the Shannon LNG terminal, etc.), any increase in employment is likely to be small, not least given that these projects are likely to remain in the development phase in the short to medium term.

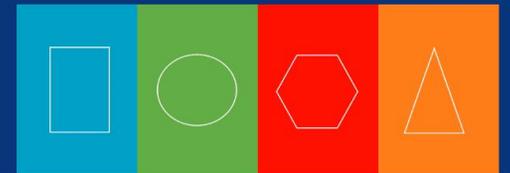
Construction

Construction remains one of the weakest sectors in the economy, with an expected negative outlook for the short to medium term. The residential sub-sector has become the weakest, with housing declining faster than commercial and civil engineering activity.⁴⁰ Residential output is set to remain

³⁸ Under the New ERA plan, significant additional investments were envisaged in the medium term in "next generation" infrastructures in energy, broadband, forestry (afforestation programme) and water (investments needed to upgrade the State's water network) Source: Programme for Government 2011, Department of Taoiseach.

³⁹ Forfás (2010) Future Skills Needs of Enterprise within the Green Economy; Government of Ireland (2008) Building Ireland's Smart Economy: A Framework to Sustainable Economic Renewal; The EU Directive 2009/28/EC.

⁴⁰ Construction Purchasing Managers' Index, April 2012.



at the historical low level of fewer than 10,000 new housing units per annum.⁴¹ At the same time, civil engineering is set to remain adversely affected by the delays and cancellations of major capital projects. There are positive developments for the sector in commercial activity related to the stabilisation of demand for office, retail and industrial properties.⁴² It is expected that there will be significant investment in social infrastructure, namely, new school buildings and the refurbishment of many existing schools.

Agriculture

The medium and long term prospects of the sector will depend on international policy developments arising out of the WTO (World Trade Organisation) and the CAP (Common Agricultural Policy) agreements. One of the implications of the changes in CAP is the forthcoming abolition of EU milk quotas in 2015⁴³, which will create opportunities for capacity expansion of up to 50% by 2020.⁴⁴

Analogous to the situation in 2010, the sector continued to benefit from the favourable terms of trade in 2011: agricultural commodity prices remained at almost record levels despite a pullback in the second half of 2011⁴⁵. It is expected that agricultural commodity prices will fall slightly in 2012,

⁴¹ Housing completions are expected to fall to approximately 8,000 units. Central Bank of Ireland, 2012, Quarterly Bulletin 02.

⁴² The National Asset Management Agency (NAMA) is to invest about €2 billion in the medium term, to both complete construction work already in progress and to develop greenfield sites. One of the stated aims is to address and prevent shortages in certain market segments, such as commercial (e.g. large offices). The Irish Times, 23rd May, 2012.

⁴³ European Commission.

⁴⁴ Department of Agriculture and Fisheries, Food Harvest 2020.

⁴⁵ The FAO Food Price Index is a measure of the monthly change in international prices of a basket of food commodities. (<http://www.fao.org>)

reducing the value of gross output in agriculture.⁴⁶ The sector is aiming to achieve targets set under the Food Harvest 2020 Strategy and reach exports of €12 billion by 2020.⁴⁷

Wholesale and Retail

The retail market has contracted considerably during the recession, experiencing four consecutive years of decline in the value of sales, although the rate of decline decelerated noticeably in 2011. The market in 2011 was smaller in both the value and volume of sales than it was in 2005.⁴⁸ Consumer sentiment remains weak due to a number of factors (e.g. lower incomes, higher VAT, etc.) with lower retail sales recorded in quarter 1 2012 compared to quarter 1 2011.⁴⁹

While the retail sector is increasingly embracing e-commerce and online selling, with online spending by Irish consumers estimated at approximately €3 billion and increasing year-on-year, any positive impact on employment is likely to be minimal, since two thirds of online spending takes place abroad.⁵⁰

Healthcare

Employment prospects in the healthcare sector are expected to remain limited in the short-to-medium term. Employment opportunities in public and publically funded healthcare are constrained by public finances and the associated moratorium on

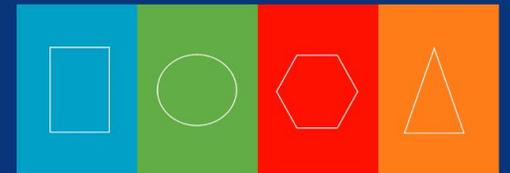
⁴⁶ Irish Exporters Association, 2011 Review; Teagasc, Outlook 2012.

⁴⁷ Department of Agriculture and Fisheries, Food Harvest 2020: A Vision for Irish Agri-Food and Fisheries.

⁴⁸ CSO (April, 2012) Retail Sales Index, March 2012.

⁴⁹ CSO Retail Sales Index, February 2012; CSO Vehicles Licensed for the First Time, 2012.

⁵⁰ Visa Europe, 2011; iReach Survey.



recruitment. Some growth is anticipated in the following areas

- care (e.g. older people care)
- collaboration with the enterprise sector in the development of new healthcare technologies, products, and services⁵¹.

Accommodation and Food Services

The outlook for the accommodation and food services sector remains challenging, with employment levels expected to remain broadly unchanged in the short-to-medium term.⁵² The key challenges for the sector are:

- domestic demand is expected to remain subdued in the short-to-medium term, despite an improvement in the short-breaks market
- while the number of overseas visitors increased for the first time in three years in 2011, it fell again year-on-year in quarter 1 2012 (-1.2%),⁵³ economic uncertainties in many key markets and high oil prices will impact on Ireland's ability to attract overseas tourists
- as a legacy of the property boom, the sector remains exposed to the potential non-performance of some high value loans and associated bankruptcy risks.⁵⁴
- although the sector made noticeable efforts to reduce operating costs and offered more competitive prices during 2011,⁵⁵ these improvements were partly the result of Government support

⁵¹ The Health Innovation Hub initiative, as envisaged by the 2012 Action Plan for Jobs.

⁵² Despite expressing a more positive outlook for future trading conditions than a year ago, the main industry players (hoteliers and guesthouse operators) indicated that there will be very little if any net jobs creation, with only 15% indicating they were planning to increase staffing levels in 2012. IHF (Irish Hotels Federation).

⁵³ CSO, (2012). Overseas Travel January 2012 - March 2012.

⁵⁴ Central Bank of Ireland, The Irish SME lending market - a snapshot, December 2010.

⁵⁵ Fáilte Ireland, End of Year Review - Tourist Season Review and Outlook, January 2012.

measures that may not be extended in the long run (i.e. VAT reduction and travel tax abolition measures)

Given that the sector is characterised by high labour intensity and the use of locally-produced inputs, it has a significant potential to contribute towards employment growth.⁵⁶

A range of policy initiatives have been introduced to support for sector. These include a reduction in VAT on tourism related goods and services, the removal of air travel tax, a reduction of employers' PRSI for low paid workers, and an easing of some travel restrictions for short stay visitors.⁵⁷

Professional, scientific and technical activities

While the outlook for architectural and construction related engineering activities is expected to remain unfavourable, the demand for professional, scientific and technical services in other areas is expected to remain resilient. In addition, this sector will benefit from continued Government support for research and development.⁵⁸

Financial, Insurance and Real Estate

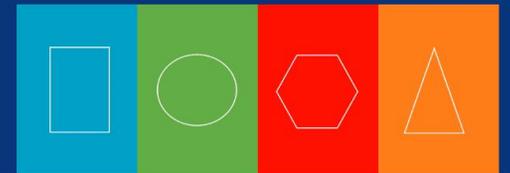
Following the financial crisis, the banking sector has been undergoing significant reform and restructuring⁵⁹. Approximately 6,000 jobs have been lost in retail banking (local banks and foreign lenders combined) since 2008 and further contraction is expected as evidenced

⁵⁶ The sector has a high gross multiplier and a high wages multiplier (CSO (2009), 2005 Supply and Use and Input-Output Tables).

⁵⁷ The above measure took effect from 1st July 2011. Job Initiative, May 2011, Department of Finance.

⁵⁸ Report of the Research Prioritisation Steering Group (Forfás), March 2012.

⁵⁹ Financial Measures Programme ('FMP') - the Central Bank of Ireland's obligation under the agreement between the European Commission, European Central Bank and the International Monetary Fund.



in the announced redundancies.⁶⁰ Insurance activities are also undergoing restructuring, and some job losses may arise. However, the sector overall continues to benefit from the positive FDI inflows, which are set to continue in the short-to-medium term, and which should provide employment opportunities in a range of associated activities.⁶¹

Information and Communication Technology

Computer programming, consultancy and related activities continue to perform well, accounting for most of the increase in overall services exports in 2011 (with a similarly good performance observed in the first quarter of 2012).⁶² Although the external environment remains challenging,⁶³ demand for ICT services is expected to remain strong. Relatively strong growth is anticipated for the following areas

- cloud computing (e.g. cloud brokerage and expanded delivery models, incorporating Infrastructure as a service (IaaS), Platform as a Service (PaaS), Software-as-a-Service (SaaS), and Business Process as a Service (BPaaS)); to facilitate the growth in this area, the Government has established the new Cloud Computing Technology Research Centre specifically targeting cloud computing technology architecture, service management (maintaining and

managing cloud-based applications and services) and cloud security.⁶⁴

- applications that cut organisations' running costs and help generate new revenues (e.g. advanced analytics Customer service management (CSM)/customer relationship management (CRM)).

There is uncertainty around the growth prospects in the telecommunications sub-sector. While investment in advanced broadband infrastructure and services in terms of rolling out high speed next generation networks (NGN)⁶⁵ coupled with further progress in improving levels of broadband coverage is required, the rollout of this infrastructure and associated services remains a considerable challenge for the commercial market operators. With regard to other segments of the sector, the film industry remains positive about the short-to-medium term outlook with the sector outlining plans for potential increases in turnover and employment⁶⁶.

⁶⁰ Irish Bank Officials Association estimates.

⁶¹ IDA Ireland is positive regarding securing continued and additional investments in International financial and business services in the short to medium term, while a similar picture emerges from the Survey of global financial institutions, with considerable investments planned in their Irish operations in the short to medium term (Economist Intelligence Unit, 2012).

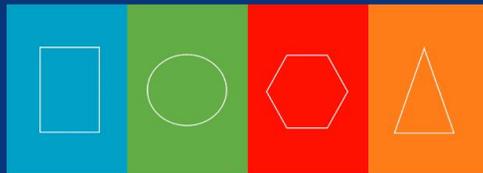
⁶² CSO, Trade Statistics.

⁶³ IT spending is set to become more conservative - thus it is forecasted to decrease by 0.7% in Western Europe for 2012 (IDC).

⁶⁴ Action Plan for Jobs 2012. (€1.2m investment).

⁶⁵ Forfás and the National Competitiveness Council have identified the roll out of high speed broadband as the top infrastructure priority for enterprise. The National Competitiveness Council (NCC), Ireland's Competitiveness Challenge 2011.

⁶⁶ Creative Capital: Building Ireland's Audiovisual Creative Economy, A report prepared for the Minister for Arts, Heritage and the Gaeltacht by the Audiovisual Strategic Review Steering Group (April 2011).



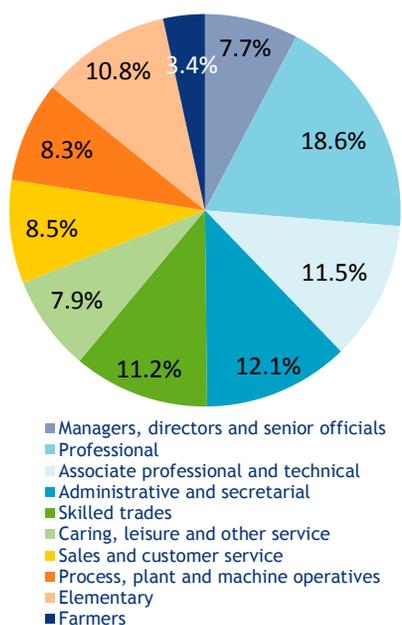
Section 3 Employment by Broad Occupation

3.1 Employment

Figure 3.1 presents employment by broad occupational group. In 2011, professionals and associate professionals accounted for 30% of total national employment. Total ‘white collar’ employment - professionals, associate professionals, managers and administrative occupations - accounted for one in two jobs.

The occupational distribution of employment in 2011 remained almost unchanged compared to that in 2010: there was less than a one percentage point loss each in the share recorded for skilled trades (which include construction craftspersons), administrative occupations and elementary occupations (which are primarily labourers), while there was a marginal increase in the share for the other occupational groups.

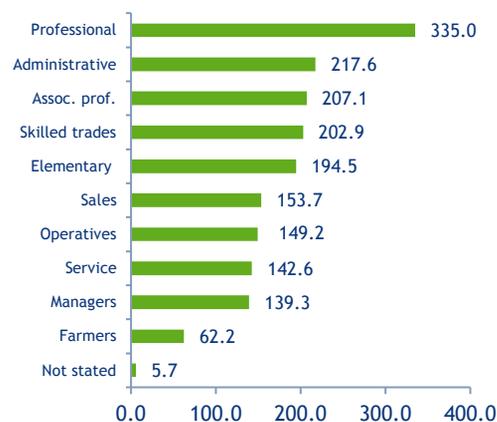
Figure 3.1 Employment by Broad Occupational Group (%), 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

Employment levels in 2011, broken down by occupational group, are presented in Figure 3.2. In 2011, over half a million persons in employment were classified as professionals or associate professionals – over 300,000 were professionals. The ranking of occupational groups in terms of employment level changed between 2010 and 2011, with associate professionals moving from the fifth to the third largest occupational group ahead of skilled trades and elementary occupations, and operatives moving from the second smallest to the fifth smallest - ahead of managers and service occupations (e.g. caring, leisure etc.).

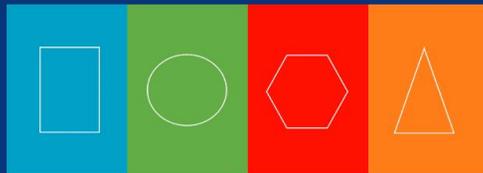
Figure 3.2 Employment by Broad Occupational Group (000s), 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

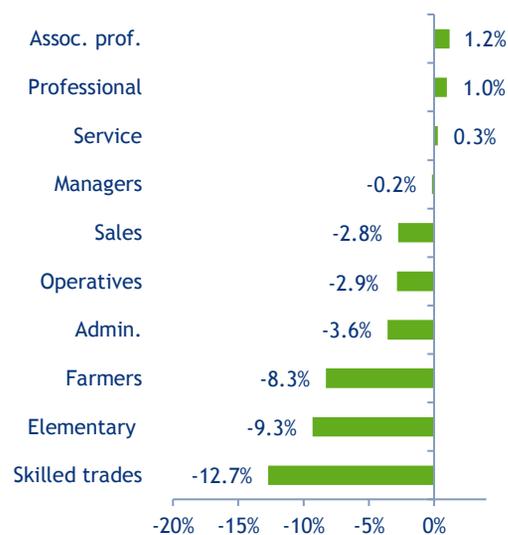
3.2 Employment Growth

Figure 3.3 presents annual average employment growth in broad occupational groups for the period 2007-2011. With the exception of professional, associate professional and service occupations, the



annual average change in employment was negative for all occupational groups. The most pronounced decline, in terms of annualised employment change was observed for skilled craftspersons, elementary occupations and farmers. Despite the recession (and a slight decline in employment recorded in 2009 and 2011 for professionals), employment levels for professionals and associate professionals were higher in 2011 compared to 2007, resulting in a positive annual growth rate for the observed period.

Figure 3.3 Annualised Employment Growth by Broad Occupational Group, 2007-2011

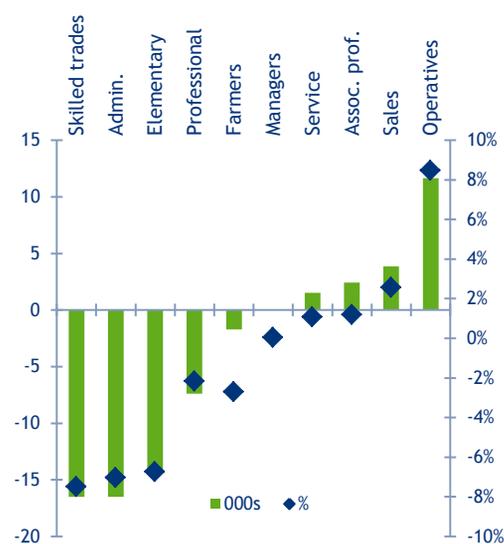


Source: Analysis by FÁS (SLMRU) based on CSO data

The absolute and relative change in employment for each broad occupational group between 2010 and 2011 is presented in Figure 3.4. Over this period, the greatest increase in employment was recorded for operatives (8%), with some growth in the number of sales, associate professional and service occupations. The greatest decline was

observed in the number of skilled tradespersons, administrative workers and elementary occupations - all greater than 10%. The number of professionals also declined (-2%), which was in contrast to the growth of 4% recorded the year previously.

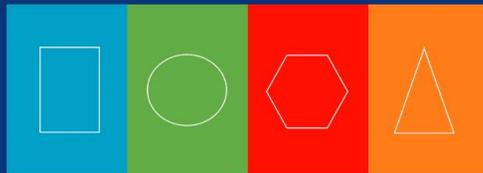
Figure 3.4 Employment Growth by Broad Occupational Group, Annualised Data, 2010-2011



Source: Analysis by FÁS (SLMRU) based on CSO data

3.3 Employment by Gender

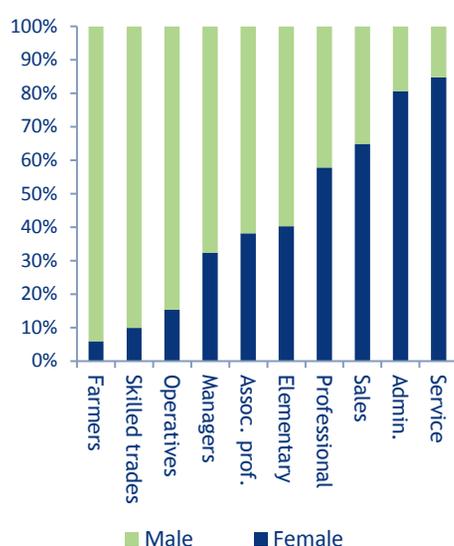
Figure 3.5 presents the gender distribution of employment in broad occupational groups in quarter 4 2011. In terms of numbers employed, females were predominant in administrative and service occupations - over four in five persons employed were female. Similarly, two in three sales persons were women. Accounting for 58% of employment, the majority of professionals in 2011 were female.



Males were predominant in farming, skilled trades and amongst operatives, with females accounting for less than 20% in each of these occupational groups.

Although gaining one percentage point in employment share between quarter 4 2010 and quarter 4 2011, females were a minority amongst managers and associate professionals, accounting for 32% and 38% respectively.

Figure 3.5 Employment by Gender and Broad Occupational Group (%), Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

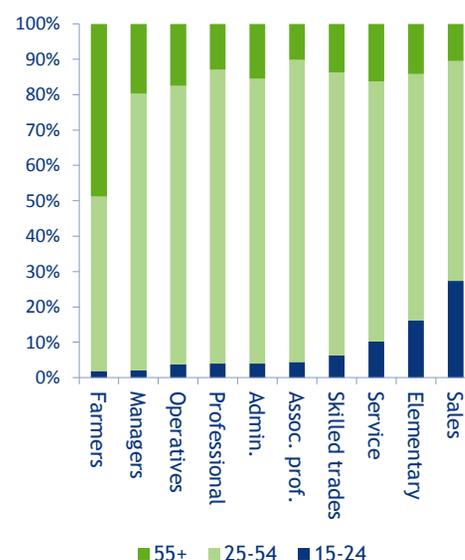
3.4 Employment by Age

The age distribution of employment in broad occupational groups is presented in Figure 3.6. In quarter 4 2011, in most occupational groups, a significant majority (>70%) of employment was in the 25-54 age cohort, with the share of 15-24 year olds less than 10% and the share of over 55s less than 20%. More pronounced skewness was observed amongst farmers and sales workers, with the

former being older than other occupations (50% are older than 55) and the latter being younger (one in four is younger than 25).

An ageing of the employment stock was observed between quarter 4 2010 and quarter 4 2011: the share of persons in the 15-24 age cohort declined in all occupational groups, except for sales. The most pronounced decline (of almost 2 percentage points) was observed for skilled trades, elementary occupations and administrative occupations.

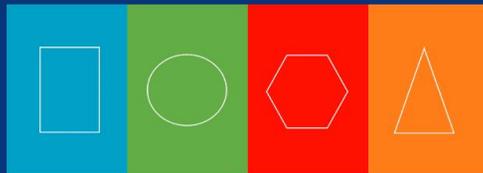
Figure 3.6 Employment by Age and Broad Occupational Group (%), Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

3.5 Employment by Education

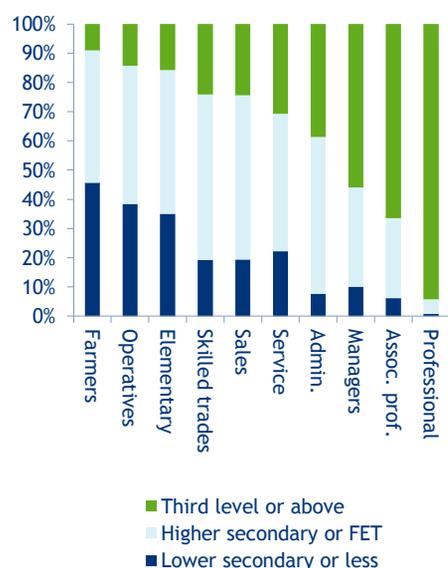
Figure 3.7 presents the education distribution of employment in broad occupational groups. In quarter 4 2011, the highest share of third level graduates was observed for professionals (94%) and associate professionals (67%). Amongst managers, while 57% held a third level qualification, 10% had less than higher secondary qualifications as the highest level



of education attained. The share of persons holding less than higher secondary education remained sizable in many occupations: almost one in two farmers, more than one in three operatives and elementary workers, and one in five craftspersons, salespersons and service workers had lower secondary or less as the highest level of education attained.

Between quarter 4 2010 and quarter 4 2011, the share of persons holding less than higher secondary education qualifications decreased in all occupational groups. The share of third level graduates increased in most occupational groups, with the highest gains observed for managers (almost 5 percentage points) and associate professionals (almost 3 percentage points).

Figure 3.7 Employment by Education and Broad Occupational Group (%), Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

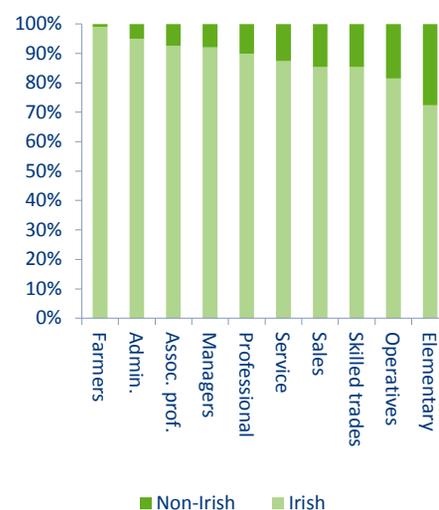
3.6 Employment by Nationality

Figure 3.8 presents the employment in broad occupational groups by nationality. In quarter

4 2011, the share of non-Irish nationals was lowest amongst farmers, clerks, associate professionals and managers (<10%). By contrast, over one in four elementary workers and one in five operatives were non-Irish. Although their share was typically greater in lower skilled occupations, nonetheless, non-Irish nationals accounted for 10% of professionals in quarter 4 2011.

Between quarter 4 2010 and quarter 4 2011, the share of non-Irish nationals decreased in sales and managerial occupations (1.5 and 1 percentage points respectively); it increased in elementary and operative occupations (2.6 and 1 percentage points respectively) and remained broadly unchanged in other occupational groups (less than a 0.5 percentage point change).

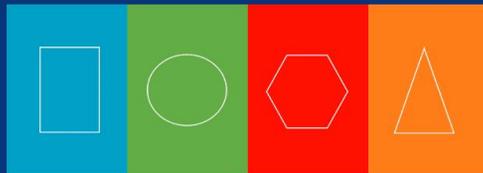
Figure 3.8 Employment by Nationality and Broad Occupational Group (%), Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

3.7 Employment Status

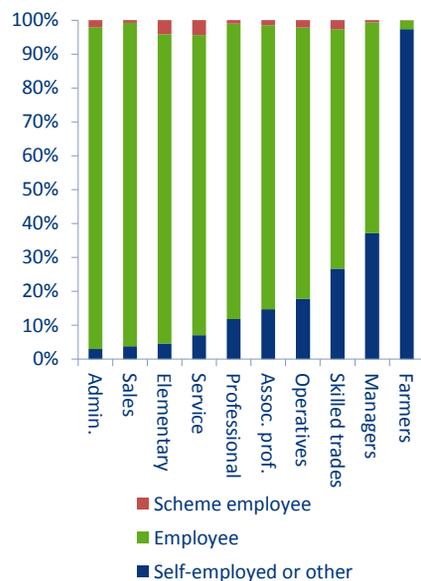
Figure 3.9 presents the employment in broad occupational groups by employment status. In quarter 4 2011, the highest share of self-



employed was found amongst farmers (almost all), managers (37%) and tradespersons (28%); the lowest share of self-employed was found in administrative, sales, elementary and service occupations. The high share of self-employed amongst managers is due to the inclusion of proprietors (e.g. shop owners, publicans etc.) in this category.

Between quarter 4 2010 and quarter 4 2011, the share of self-employed declined in most occupational groups, with the greatest decline recorded for skilled trades (3.4 percentage points). The share of self-employed increased only amongst managers (3.6 percentage points).

Figure 3.9 Employment by Employment Status and Broad Occupational Group (%), Quarter 4 2011



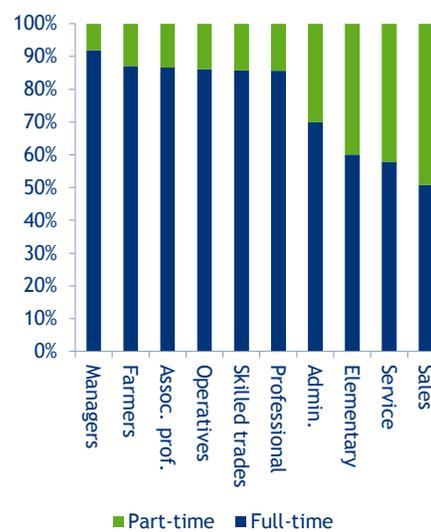
Source: Analysis by FÁS (SLMRU) based on CSO data

Note: The scheme employee refers to employees on community employment schemes (CES) and other employment schemes (e.g. Job Bridge and Work Placement) based on the CSO's standard employment status classification.

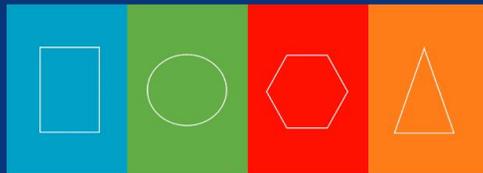
Figure 3.10 presents the breakdown of employment in broad occupational groups between full-time and part-time workers. In quarter 4 2011, the majority of employment (>50%) in all occupational groups was full-time. The highest share of part-time workers was found amongst lower skilled occupations (sales, service and elementary). At 8%, managers were least likely to work part-time.

Between quarter 4 2010 and quarter 4 2011, the share of part-time workers increased in most occupational groups, with the greatest increase observed for labourers and farmers (almost 3 percentage points each). However, the share of part-time workers decreased for service occupations and skilled trades (2 and 1 percentage points respectively).

Figure 3.10 Full-Time and Part-Time Employment by Broad Occupational Group (%), Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

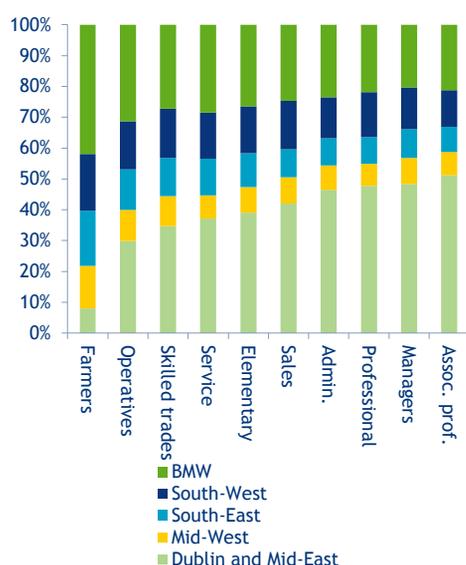


3.8 Employment by Region⁶⁷

Employment in broad occupational groups broken down by region is presented in Figure 3.11. In quarter 4 2011, the greatest share of employment in all occupational groups was located in Dublin and the Mid-East, except for farmers and operatives, who had the greatest share in the Border, Midlands and West region. Over 40% of employment in sales and ‘white collar’ occupations (managers, professionals, associate professionals and administrative workers) was located in Dublin and the Mid-East. Almost one in two professionals, associate professionals and managers were also located in these two regions.

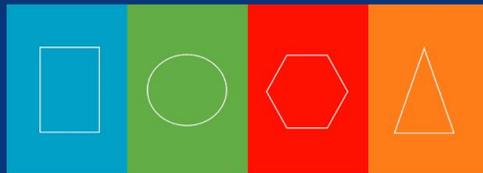
Between quarter 4 2010 and quarter 4 2011, Dublin and the Mid-East lost a share of operatives and farmers (4 and 2 percentage points respectively), with most gains recorded in the Mid-West region (2 percentage points in each occupational category). However, Dublin and the Mid-East gained in their share of managers and associate professionals (3 and 1 percentage points respectively), with a loss of similar magnitude recorded in the BMW region.

Figure 3.11 Employment by Region and Broad Occupational Group (%), Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

⁶⁷ While regions are defined by NUTS3, for presentation purposes the Border, Midlands and Western Regions are grouped into the BMW region while the Dublin region and the Mid-East region were grouped to form the Dublin and Mid-East region.



Section 4 Regional Skills Profiles

4.1 Employment Growth

Employment levels in the eight NUTS 3 regions of Ireland are presented in Figure 4.1. In quarter 4 2011, 750,000 persons were working in Dublin and the Mid-East (which includes the Greater Dublin Area), accounting for 40% of national employment. The second largest region in terms of employment levels was the South-West, while the Midlands was the smallest, accounting for 6% of national employment.

Figure 4.1 Employment by Region (000s), Quarter 4 2011

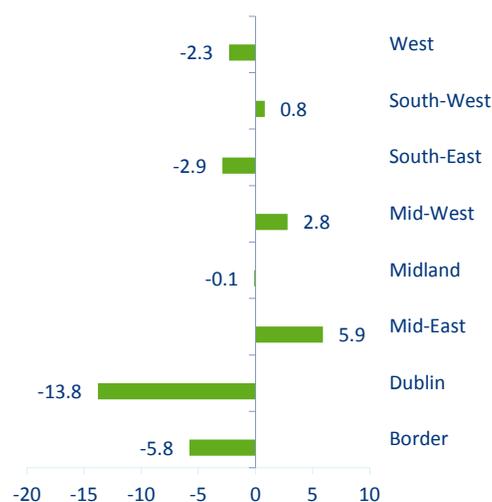


Source: Analysis by FÁS (SLMRU) based on CSO data CSO

Between quarter 4 2010 and quarter 4 2011, there was very little change in the employment levels in the South-West and Midlands (Figure 4.2). Employment declined in the Dublin, Border, South-East and West regions, while it increased in the Mid-East and Mid-West.

In absolute terms, the greatest change in employment levels in the year up to quarter 4 2011 was recorded in Dublin - a net job loss of almost 14,000.

Figure 4.2 Employment Change by Region (000s), Quarter 4 2010 - Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

In relative terms (Figure 4.3), employment declined by similar magnitudes in the Dublin and Border regions (-3% in each region). The greatest gains in relative terms were recorded in the Mid-East region (3%).

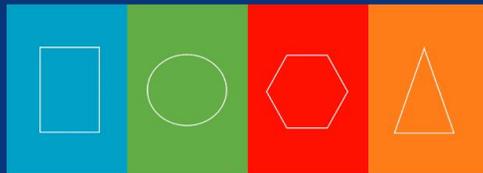


Figure 4.3 Employment Change by Region (%), Quarter 4 2010-Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

Net job gains and losses were not evenly distributed across regions (Table 4.1). For instance, of the total net job losses of 25,000 recorded in the Border, Dublin, Midlands, South-East and West regions, the Border region accounted for almost a quarter, which is proportionately a greater loss when compared to this region's share in the combined employment of these five regions.

Table 4.1 Change in Employment (000s) and Regional Share in the Change

	Q4 2010- Q4 2011	Share in total decline*	Share in total increase*
Border	-5.8	23% (15%)	-
Dublin	-13.8	55% (44%)	-
Mid-East	5.9	-	62% (36%)
Midlands	-(<1.0)	0% (9%)	-
Mid-West	2.8	-	29% (23%)
South-East	-2.9	12% (16%)	-
South-West	<1.0	-	8% (40%)
West	-2.3	9% (15%)	-
Total	-15.4	100%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

* Employment share in brackets

In quarter 4 2011, Dublin had the highest number of unemployed persons of all regions nationally (75,000, or one quarter of all unemployed persons in the country), while the Midlands had the lowest number (22,000) (Table 4.2). However, the unemployment rate in Dublin was the second lowest (12.8%), while it was the second highest in the Midlands (18.1%).

In quarter 4 2011, the unemployment rate remained greater than 10% in all regions, with the South-East recording the highest unemployment rate of all regions – almost 19%. The lowest unemployment rate was recorded in the Mid-East.

Between quarter 4 2010 and quarter 4 2011, unemployment decreased in Dublin and the Mid-West, while it increased in the Midlands, South-East and South-West. In the rest of the regions, the change in the unemployment level was less than 1,000.

The greatest change in the unemployment rate over the period quarter 4 2010 and quarter 4 2011 was in the Midlands region where the rate increased by over two percentage points. The rate declined by over one percentage point in the Mid-West.

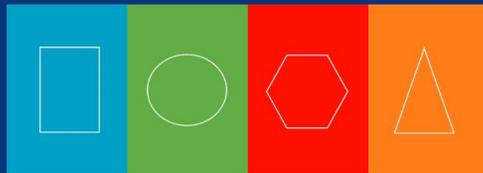


Table 4.2 Unemployment (000s), Change in Unemployment (000s) and Unemployment Rates (%) by Region, Quarter 4 2011

	Q4 2011	Q4 2010- Q4 2011	UE rate	Share in total UE
	000s			
Border	28.2	<1.0	13.6%	9%
Dublin	74.9	-1.7	12.8%	25%
Mid-East	33.3	<1.0	12.3%	11%
Midlands	22.2	3.3	18.1%	7%
Mid-West	28.4	-2.1	15.7%	9%
South-East	43.4	1.7	18.9%	14%
South-West	39.9	1.5	13.2%	13%
West	31.7	<1.0	15.2%	10%
Total	302.0	3.0	14.3%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

In quarter 4 2011, the lowest participation rate in the labour market was in the Border region, with further withdrawals from the labour force evident in the 1.3 percentage points loss on quarter 4 2010 (Table 4.3). Participation also decreased in Dublin, the South-East and West. However, participation increased in all other regions, albeit by less than one percentage point in all cases. The highest participation rate in quarter 4 2011 was in the Mid-East.

Table 4.3 Participation Rates by Region

	Q4 2010	Q 4 2011	Percentage point change
Border	54.4%	53.1%	-1.3
Dublin	62.6%	61.9%	-0.7
Mid-East	64.9%	65.5%	0.6
Midlands	56.7%	57.3%	0.6
Mid-West	61.4%	62.0%	0.6
South-East	58.4%	57.8%	-0.6
South-West	58.9%	59.0%	0.1
West	62.0%	61.8%	-0.2
Total	60.4%	60.2%	-0.2

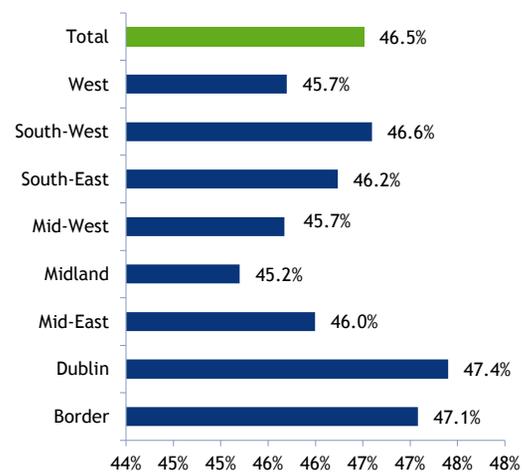
Source: Analysis by FÁS (SLMRU) based on CSO data

4.2 Employment by Gender

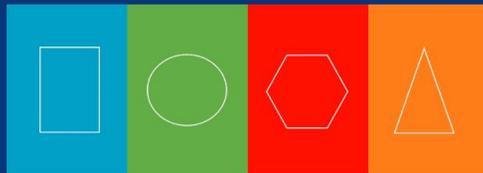
Figure 4.4 shows the share of females employed in each region in quarter 4 2011. Females account for less than 50% of employment in all regions. The lowest share of females in the employment stock was in the Midlands (45.2%), while the highest was in Dublin (47.4%).

Between quarter 4 2010 and quarter 4 2011, the share of females declined by a small margin in most regions. The largest loss was recorded in the West region, where the female share declined by 2 percentage points. In the Border and Midlands, however, females narrowed the gender gap by a percentage point each.

Figure 4.4 Share of Females in Employment by Region, Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

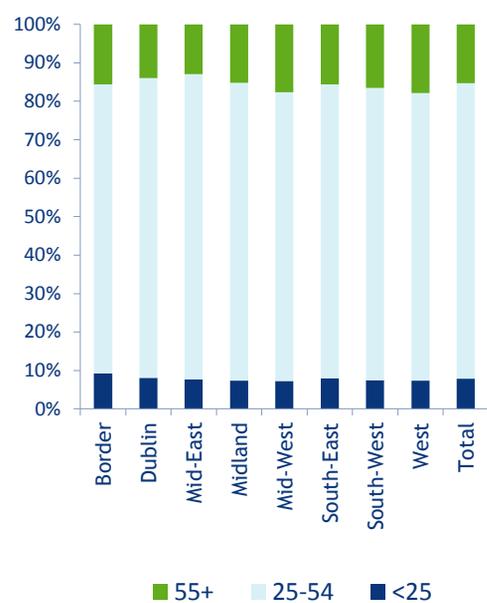


4.3 Employment by Age

Figure 4.5 shows regional employment by age. In quarter 4 2011, the age distribution of employment was broadly aligned across regions, with over three quarters of employment aged 25-54, less than 10% under 25 and less than 20% over 55. At 13%, the Mid-East had the lowest share of persons aged 55 and over, while the West and Mid-West regions had the highest (18%).

Between quarter 4 2010 and quarter 4 2011, with the exception of the Border and Midlands, age distributions in all regions shifted towards older age cohorts: the share of under 25s declined and the share of over 55s increased. The greatest shift in the age distribution was observed for the Mid-West, where the share of under 25s declined by three percentage points, with older age cohorts gaining in share.

Figure 4.5 Regional Employment by Age, Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

4.4 Employment by Education

Figure 4.6 shows regional employment by the highest level of education attained. In quarter 4 2011, the education level of persons in employment varied across regions. In the Border and Midlands, a little over a third of persons in employment held a third level qualification, while one in five had less than higher secondary education. By contrast, in the Mid-East, one in two held a third level qualification, while 11% had less than higher secondary education.

Between quarter 4 2010 and quarter 4 2011, with the exception of Dublin, the share of persons holding less than higher secondary education decreased in all regions. The largest decrease was in the Mid-East region (four percentage points). In most regions, the fall in the share of persons with less than higher secondary education was not mirrored in the rise in the share third level graduates, but more so in the rise of the share of holders of higher secondary or further education and training qualifications. The share of third level graduates increased by less than one percentage point in most regions. The exception was the Mid-East where the share of third level graduates increased by five percentage points.

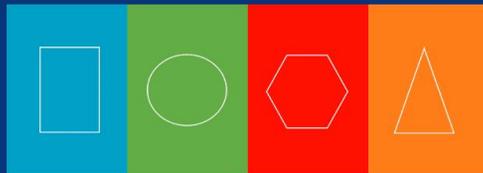
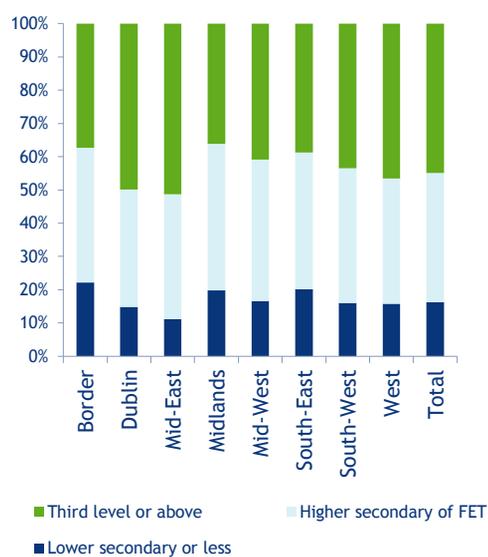


Figure 4.6 Regional Employment by Education, Quarter 4 2011



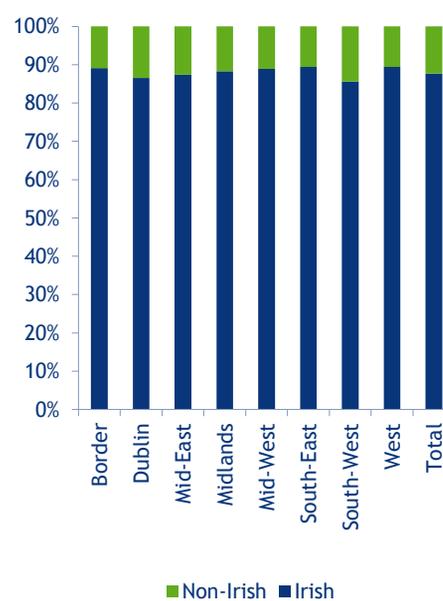
Source: Analysis by FÁS (SLMRU) based on CSO data

4.5 Employment by Nationality

Figure 4.7 shows regional employment by nationality. In quarter 4 2011, the share of non-Irish nationals ranged between 11% and 14%, with the highest share of non-Irish workers recorded in the South-West region, followed by Dublin and the Mid-East.

Between quarter 4 2010 and quarter 4 2011, the share of non-Irish workers declined in the Border, Dublin and West region. It increased in other regions with the greatest increase in share observed in the South-West (two percentage points).

Figure 4.7 Regional Employment by Nationality, Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

4.6 Employment by Employment Type

Figure 4.8 shows regional employment by employment status. In quarter 4 2011, the self-employed accounted for less than a fifth of employment in all regions. The lowest share of self-employed was in Dublin (13%), while the Mid-West and South-East had the highest share at 18%.

Between quarter 4 2010 and quarter 4 2011, the share of self-employed increased in Dublin and the Mid-West, remained unchanged in the Mid-East and declined in all other regions. The greatest decline was observed in the Border region (2.6 percentage points).

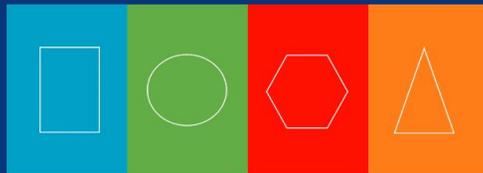
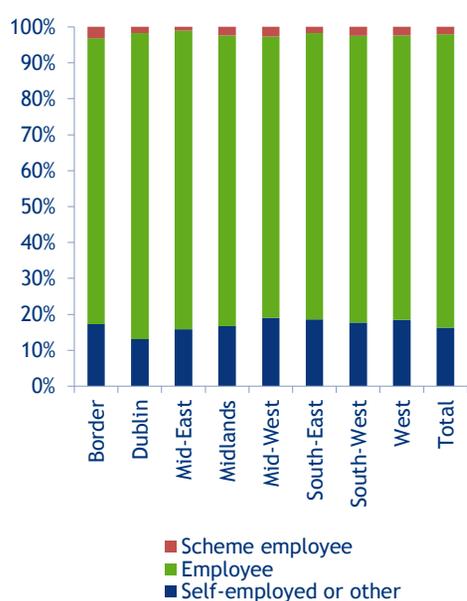


Figure 4.8 Regional Employment by Employment Status, Quarter 4 2011

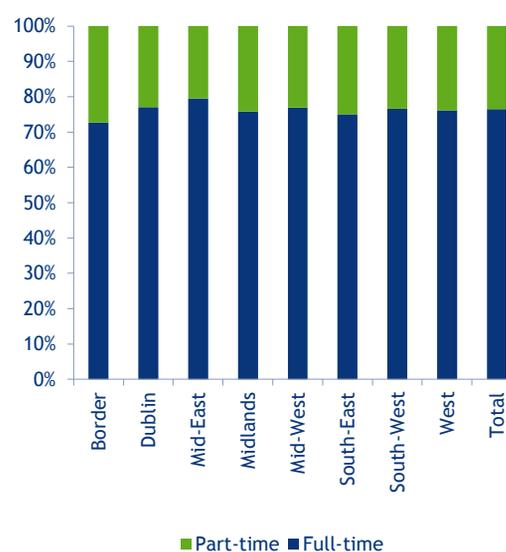


Source: Analysis by FÁS (SLMRU) based on CSO data

Figure 4.9 shows regional employment by employment type. In quarter 4 2011, a significant majority of employment was full-time, with part-time employment accounting for between a fifth (Mid-East) and just over a quarter (Border and South-East, 27% and 25% respectively).

Between quarter 4 2010 and quarter 4 2011, the share of part-time workers increased in all regions except the Mid-East, Mid-West and West. The greatest increase was in the Midlands region (three percentage points). In the Mid-East, the share of part-time workers declined by 1.5 percentage points.

Figure 4.9 Regional Employment by Employment Type, Quarter 4 2011

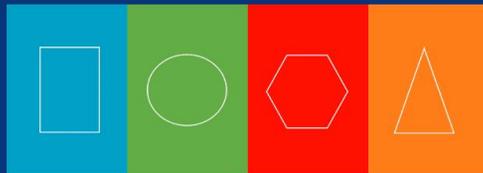


Source: Analysis by FÁS (SLMRU) based on CSO data

4.7 Employment by Sector

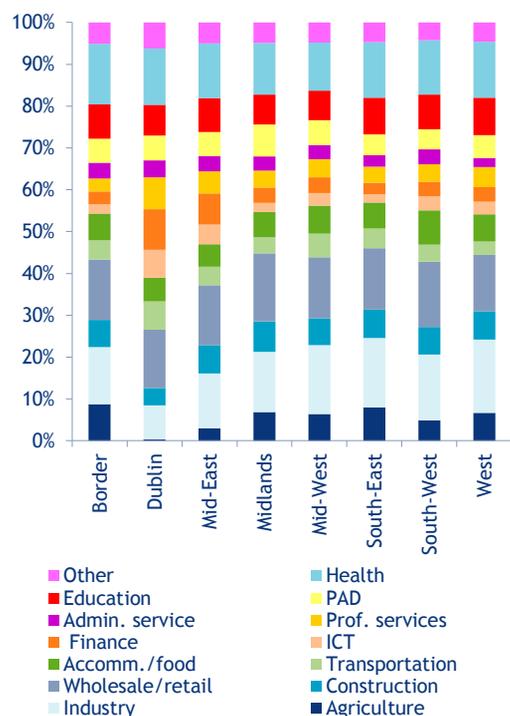
Figure 4.10 shows regional employment by sector. In quarter 4 2011, most regions had two-digit shares of employment in industry (13%-17%), wholesale/retail (13%-16%) and healthcare (11%-15%). The exception was Dublin, which had less than 10% of employment in industry, but had greater shares than other regions in ICT, financial and professional services sectors. Also, while all regions had some share of employment in agriculture, Dublin had less than 1%. The construction sector accounted for 4%-7% of employment in each region.

The sectoral distribution of employment changed very little between quarter 4 2010 and quarter 4 2011 in most regions, with most changes less than one percentage point. The most pronounced shift occurred in the Border region where the share of industrial



employment declined by three percentage points.

Figure 4.10 Regional Employment by Sector, Quarter 4 2011

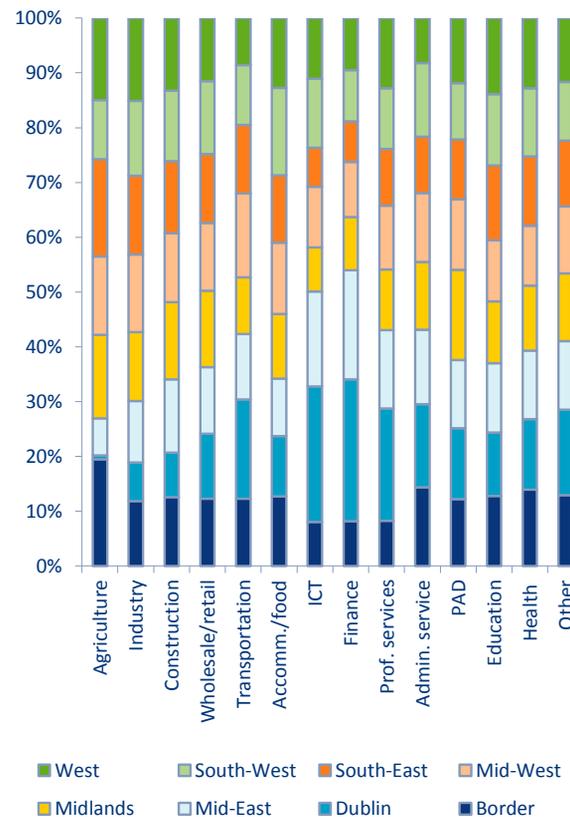


Source: Analysis by FÁS (SLMRU) based on CSO data

Figure 4.11 shows sectoral employment by region. In quarter 4 2011, over one in two jobs in transport and professional services and two in three of ICT and financial services jobs were located in Dublin and the Mid-East. By contrast, only 11% of total agricultural employment and only a third of all industrial, construction and accommodation/food sector jobs was located in Dublin and the Mid-East.

Between quarter 4 2010 and quarter 4 2011, the share of ICT employment located in Dublin and the Mid-East increased by five percentage points to over 60%.

Figure 4.11 Sectoral Employment by Regions, Quarter 4 2011

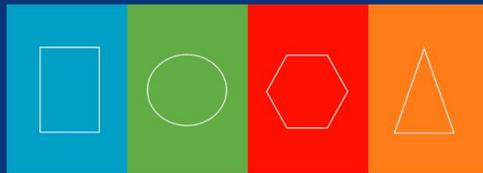


Source: Analysis by FÁS (SLMRU) based on CSO data

4.8 Employment by Occupation

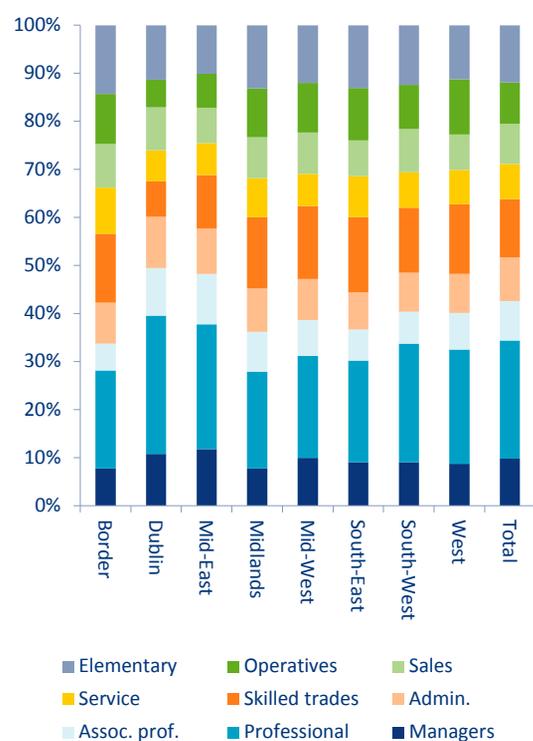
The occupational distribution of regional employment is presented in Figure 4.12. In quarter 4 2011, one in two persons working in Dublin and the Mid-East were in 'white collar' employment (professional, associate professional, managerial and clerical), compared to less than 40% in all other regions and a third in the Border region.

Between quarter 4 2010 and quarter 4 2011, the occupational distributions of regional employment remained broadly unchanged (changes ranging 0-1 percentage points). The most pronounced change was in the Mid-East region in which the share of 'white collar'



employment increased by four percentage points. In the Mid-West region, the share of professional employment declined by two percentage points, while the share of operatives increased by the same magnitude. In the Midlands, the share of managers declined by two percentage points, while the share of salespersons increased by the same magnitude.

Figure 4.12 Regional Employment by Occupation, Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

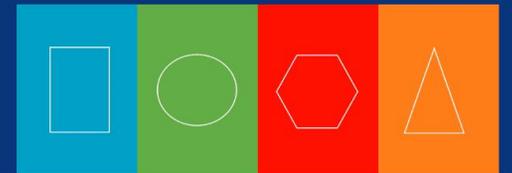
Table 4.4 lists, for each region, individual occupations that recorded a net increase/decline in employment of over 1,000 between quarter 4 2010 and quarter 4 2011. In each region, there were net gains and losses of over 1,000 at occupational level.

Given the size of its labour market, Dublin recorded the greatest number of occupations

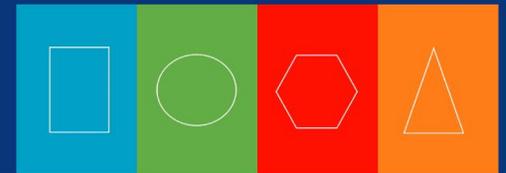
with gains and losses of at least 1,000. The area of sales and customer care (e.g. sales executives) recorded the most prominent number of net job gains.

Table 4.4 Occupations with Net Job Gains/Losses >1,000 by Region, Q4 2010-Q4 2011

Region	Net job gains >1,000	Net job losses >1,000
Border	Educational assistants Prim/nursery teachers Functional managers Sales assistants	Administrative staff Accountants Waiters
Dublin	Chefs Business sales exec Sales account managers Customer service Business analysts Office managers Financial acc. manager Functional managers Cleaners Software developers	Accountants Nurses Gardaí Bank clerks Financial clerks Hairdressers Pharmacy assistants Investment analysts Retail managers Sales occupations Marketing ass. prof. Estate agents Truck drivers Financial managers
Mid-East	Engineering technicians IT managers Production managers Gardaí Nurses Metal fitters Functional managers	Personal assistants Truck drivers Farmers Civil servants Primary teachers Vehicle technicians Cleaners
Midlands	Farmers Sales assistants	Clerks Retail managers
Mid-West	Food operatives Farmers Civil servants	Shopkeepers Waiters Clerks
South-East	Routine operatives	Const. labourers Clerks Bar staff
South-West	Gardaí Childminders Accountants Food operatives Storage labourers Cleaners Functional managers	Sales assistants Farmers Primary teachers Chemical operatives
West	Routine operatives	Sales assistants Secondary teachers



Clerical and typically public sector jobs (e.g. teachers, nurses, Gardaí) were most frequently listed amongst net job losses of over 1,000, but also some lower skilled occupations (e.g. waiters). Typically public sector jobs also featured in net gains in some regions. Net job gains in operative occupations (e.g. food operatives), occurred in several regions, although the South-West recorded a net job loss over 1,000 for chemical operatives.



Section 5 Education and Training

An overview of the supply of skills from the education and training system in Ireland is outlined in this section. Table 5.1 shows the estimated number of awards made at each level on the National Framework for Qualifications (NFQ) in 2011 by provider type; Table 5.2 provides the field of learning for each award type. Further education and training awards data in Tables 5.1 and 5.2 refer to major awards only.

Table 5.1 Summary of Education and Training Awards by NFQ Level, 2011⁶⁸

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

Source: SEC; FETAC (Major Awards); HEA

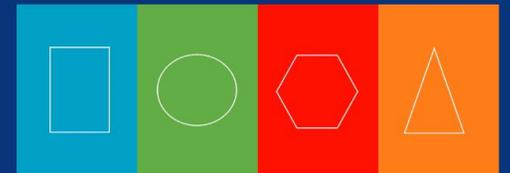
Table 5.2 Summary of Further and Higher Education and Training Awards by Field of Education, 2011⁶⁸

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

Source: FETAC (Major awards); HEA

*There are four award types on the NFQ (major, minor, special purpose and supplemental). Further education and training awards data refers to major awards only. Other award types in the further education and training sector are discussed in Section 5.2. Appendix A details the award types and levels on the NFQ.

⁶⁸ Graduation data for universities and institutes of technology is for 2010 - the most recent available data. All data presented in Tables 5.1 and 5.2 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 all private education provision from private, independent third level colleges and professional institutes (included in section 5.3.2).



5.1 Junior and Leaving Certificate

In 2011, the combined number of Junior and Leaving Certificate sittings totalled 114,500. Of these, the Junior Certificate, placed at level 3 on the NFQ, accounted for almost 57,000 sittings and the Leaving Certificate, which spans levels 4 and 5 on the NFQ, made up just over 57,500 sittings. There are three types of Leaving Certificate programme: the Leaving Certificate Established (38,000 sittings, or 66% of all Leaving Certificate sittings), Leaving Certificate Vocational Programme (almost 16,400 sittings, or 28%) and the Leaving Certificate Applied Programme (almost 3,200 sittings, or 6%).

When compared to 2010, there was almost a 2% increase in the number of Junior Certificate sittings but almost a 1% decline in the number of Leaving Certificate sittings.

Demographic data as well as enrolment figures at primary and second level suggest that the decline in the number of Leaving Certificate sittings will, however, be reversed in the short to medium term.

Approximately 2% of Leaving and Junior Certificate candidates in 2010 were re-entrants to education, sitting the examinations through schemes such as the Vocational Training Opportunities Scheme (VTOS).

5.2 Further Education and Training

The Further Education and Training Awards Council (FETAC) is the awarding body for further education and training in Ireland. Programmes leading to FETAC awards are offered through: Fáilte Ireland, Bord Iascaigh Mhara, Teagasc, FÁS, Vocational Education Committees (VECs), adult and community education and training centres, private

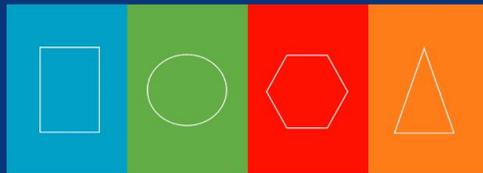
providers and the workplace (e.g. Skillnets). The courses offered range in duration from a number of days to longer courses, such as apprenticeship programmes, which are typically 4 years.

Table 5.3 provides the number of FETAC awards for 2010 and 2011. There were approximately 180,000 award holders in 2011, representing a 2% increase on 2010. In contrast, there was a slight decline in the total number of awards made: over the period 2010-2011, the number of awards fell from 348,000 to 334,185, a decline of 4% (or almost 14,000 fewer awards).

With the exception of major awards, the number of awards declined for each award type between 2010 and 2011:

- the number of major awards rose by almost a fifth (almost 6,000 extra awards), reaching almost 38,000 in 2011
- at 285,000 awards in 2011, the number of minor awards fell by 6%, with 19,000 fewer awards made in 2011 compared to 2010; on average, minor award holders received two minor awards each
- the number of special purpose awards declined by 5%, to 10,899
- the number of supplemental awards fell by 29% to approximately 1,000.

Major Awards: the largest share of major awards was made at level 5 (62%) and level 6 (24%); awards at levels 3 and 4 accounted for most of the remainder (at 9% and 3% respectively or a combined total of 4,608 awards); the share of level 1 and 2 awards together amounted to less than 2% (or just under 1,000 awards).



In terms of field of learning⁶⁹, almost one third of major awards (almost 12,000) were in education, health and welfare, the vast majority of which were at level 5 (e.g. childcare, healthcare support); at 18% of the total (or 7,000 awards), the second largest field of learning was business and administration, most of which were also at level 5.

Minor awards: approximately three quarters of minor awards were made at either level 5 (147,000 awards, or 52%) or level 3 (67,000 awards, or 24%); this was followed by awards at levels 4 and 6 which made up 16% and 8% of the total (45,000 and 147,000 awards) respectively; the combined number of awards at levels 1 and 2 accounted for about 1%.

Almost one half of all minor awards were made in either core skills etc. or services fields of learning: there were 77,000 awards in the core skills, languages and general studies field (e.g. communications) and 63,000 awards in the services field (e.g. occupational first aid).

Special purpose awards: except for two level 3 awards, special purpose awards were made at levels 4-6 only; level 5, at 7,900 awards, accounted for almost three quarters of the total, while a further quarter were made at level 6; the remaining 2% were made at level 4.

More than 4,000 special purpose awards (37%) were in the field of construction and built

⁶⁹ Field of learning refers to FETAC internal classifications (and not ISCED (International Standard Classification of Education) as has been used elsewhere in this report); the FETAC data in Tables 5.1 and 5.2, which refers to major awards only, was classified by the SLMRU according to ISCED field of learning codes.

environment and a further 3,700 (34%) were in the services field;⁷⁰ these awards related in part to best practice training (three-day courses) for private and public sector employees working in the construction industry, e.g. roads construction.

Supplemental awards: all awards were made at level 6, mostly for awards in installing domestic solar water systems, domestic gas installation and safety in gas installation.

Table 5.3 FETAC Award by Type and Award Holders, 2010 and 2011

Award Type	2010		2011	
	Awards	Award Holders	Awards	Award Holders
Certificates (Major)	31,764	31,764	37,857	37,857
Component (Minor) ⁷¹	303,577	141,046	284,597	140,870
Special Purpose	11,337	11,337	10,785	10,785
Supplemental	1,327	1,327	946	946
Total	348,005	176,570*	334,185	180,690*

Source: FETAC

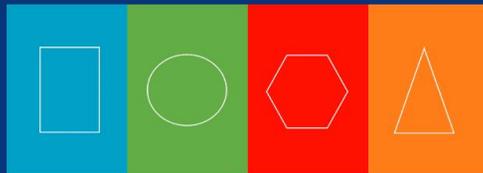
* Note: the total number of candidates is not equivalent to the number of candidates for each award type as some candidates gained more than one award type.

5.3 Higher Education

Higher education spans levels 6-10 on the NFQ and is provided by the institutes of technology (IoTs), universities and private colleges. This section first examines the supply of skills from the Irish higher education sector (IoT and universities) by NFQ level; this is followed by an overview of the awards made to students

⁷⁰ The specific purpose awards categorised in the services field are comprised of awards that are related to the construction field, such as articulated dumper operations, telescopic handler operations, and excavator operations awards.

⁷¹ One or more minor awards may lead to a FETAC Component Certificate. The figures here refer to the disaggregated numbers of minor awards.



at private/independent colleges. The final section provides information on Irish domiciled students pursuing higher education abroad.

5.3.1 Universities and IoTs

The current supply of persons gaining higher education qualifications is ascertained through graduate data, while CAO data provides an indication of future trends. The latest data available for graduate numbers relates to 2010; CAO acceptance data is for 2011.

Level 7/6

In 2010, there were over 13,300 level 7/6 graduates from Irish higher education, an increase of 5% on the previous year. While both levels experienced increases year-on-year, it is level 6 which has brought combined output levels down in recent years. CAO acceptance data indicates that output will increase in the coming years, primarily related to growths in intake at level 7.

Figure 5.1 shows the number of graduates by field of education in 2009 and 2010. The most notable changes in graduate output over the period 2009-2010 occurred in the following education fields:

Agriculture/Veterinary: this discipline increased by 35%, the largest percentage increase in 2010; however, it represents a small proportion of overall output at this level.

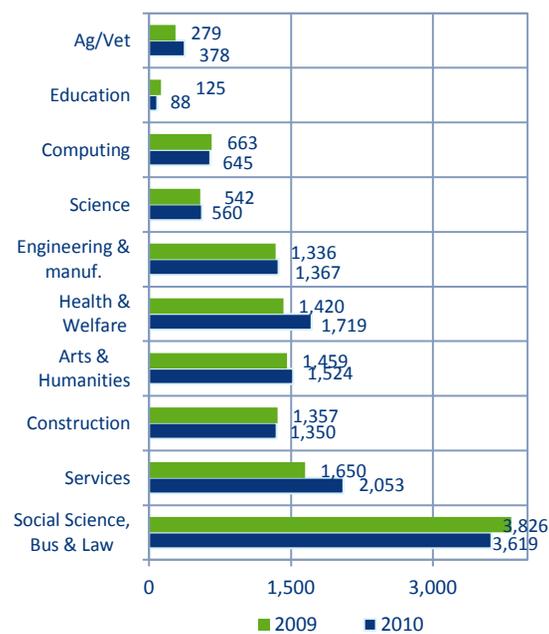
Health and Welfare: output increased by 21%, primarily at level 6. This is not expected to persist as CAO acceptances are showing signs of declines in this discipline.

Services: as predicted by recent increases in CAO acceptances in this discipline, previously observed declines in graduate output were reversed between 2009 and 2010, with an increase in output of 24%. This was due to increased activity in courses in hospitality, sport and occupational health and safety.

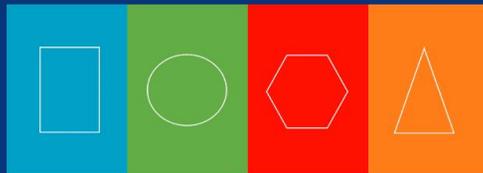
Social science, business and law: a 5% decline in output occurred in this discipline across levels 6 and 7; this decline is likely to persist due to a falling number of students accepting places on courses in this discipline.

Technology: very little change occurred across technology-related subjects (science, computing, engineering and manufacturing, and construction) between 2009 and 2010. Declines are likely to be observed in the short-term as enrolment levels drop across most subjects at this level.

Figure 5.1 Level 7/6 Graduates, 2009-2010



Source: HEA

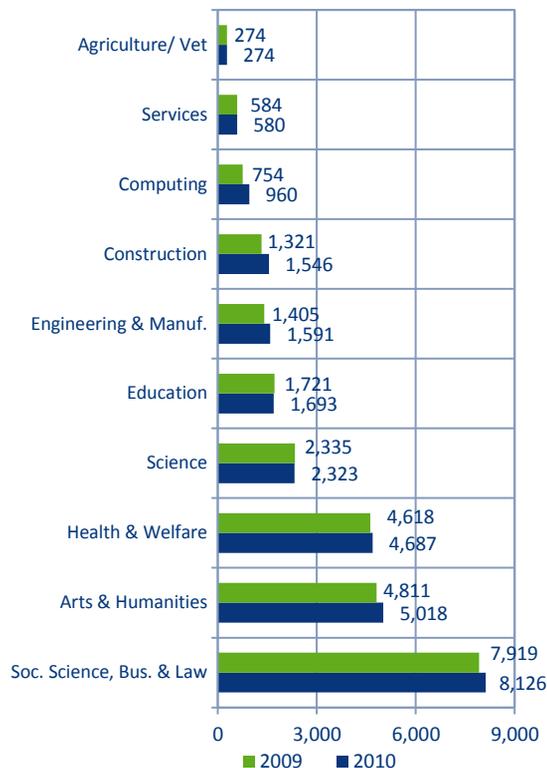


Level 8

The number of level 8 graduates increased by 4% from 25,700 in 2009 to 26,800 in 2010. Future growth in graduate outflow at this level is expected in the short term, although a levelling off is likely to occur in the medium term as CAO acceptance data has remained static since 2009.

Figure 5.2 compares graduate numbers by broad discipline for 2009 and 2010.

Figure 5.2 Level 8 Graduates, 2009-2010



Source: HEA

Trends emerging from the data include:

Engineering & manufacturing: output increased by 13%; due to continued increases in CAO acceptances and enrolments, a continuation of this trend is expected in the medium term.

Construction: with a 17% increase in graduate output between 2009 and 2010, the significant decline in intake to construction courses has yet to be fully realised (many students would have entered these courses prior to the economic downturn in 2006 or 2007). A decline in output is expected to become apparent in the short to medium term, given the sharp decline in CAO acceptances for this discipline.

Computing: declines experienced in recent years were reversed in 2010 with an increase in graduate output of 27%. The continued growth in CAO acceptance numbers and enrolment levels suggest a continuation of this trend in the medium term.

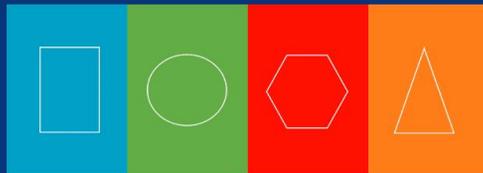
Science: graduate output remained unchanged between 2009 and 2010. Growth in the number of students accepting and enrolling in science courses indicates that output will remain strong in the medium term.

Arts & humanities: this subject experienced a 4% increase in output, with modest increases expected to continue in the medium term.

Social science, business and law: stable enrolment and CAO acceptance numbers suggest little change is expected in overall output levels in the short to medium term.

Level 9/10

Level 9/10 qualifications include postgraduate certificates and diplomas, master degrees and PhDs. A total of 18,121 students graduated with a postgraduate qualification in 2010, an increase of 13% on 2009 and 34% since 2006. A drop in enrolment levels in 2010 for postgraduate certs/diplomas and masters



suggest a reversal will occur in the medium term.

In 2010, 36% of level 9/10 awards were postgraduate certs/diplomas, 57% were masters and 7% were PhDs. The discipline breakdown of postgraduate awards for 2009 and 2010 is shown in Figure 5.3. Trends emerging from the data include:

Engineering & manufacturing: graduate output increased by 69% between 2009 and 2010, primarily due to a doubling of output on masters courses. The recent decline in enrolment figures is likely to have an impact on output in the short term.

Construction: an increase of 16% occurred year-on-year although the numbers involved are small.

Science: despite slight declines at PhD level, output in this subject increased by 10%. This is likely to persist due to significant increases in enrolments in masters' programmes.

Computing: there was an overall increase in output of 31%, reversing recent declines in this subject. The decline in enrolments in 2010 will impact on output levels in the short-term.

Health and welfare: despite slight declines in masters output, this subject increased by 6%. As the only subject to experience increases in enrolments across all programme types in 2010, growth in output is expected to continue.

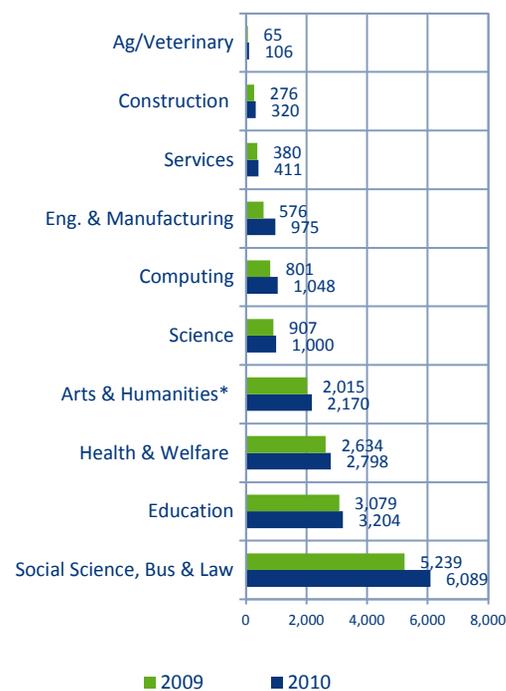
Social science, business and law: output continues to increase (by 16% in 2010) due to a growth in the number of masters graduates.

This subject accounted for 45% of all masters output and 34% of total postgraduate output in 2010.

Education: output increased across all programme types in 2010, particularly at masters level; this trend is expected to continue as enrolment levels continue to increase.

Arts and humanities: continued increases in output at masters' level resulted in an overall increase of 8% in this subject.

Figure 5.3 Level 9/10 Graduates, 2009-2010

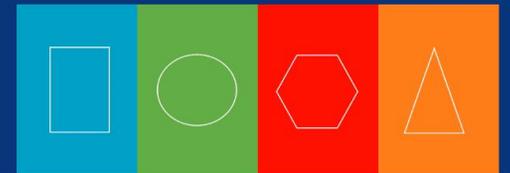


Source: HEA

*Includes general and combined studies.

5.3.2 Private Education Provision

Education and training in Ireland also takes place outside the public system. Private schools, colleges, organisations and a range of professional institutes offer various types of education within the further education and training sector, the higher education sector



and professional level training. This section first examines the number of higher education awards made to learners taking courses outside the Irish university and institute of technology sectors (e.g. Hibernia College, IBEC, etc.; Appendix B provides a list of the education and training providers whose awards are included in this category). This is followed by an overview of the qualifications gained by learners through some of the professional institutes in Ireland⁷² and selected private providers of FET (non-FETAC awards providers). Courses offered by private providers which lead to FETAC awards are not included in this section as they are present in the awards data outlined earlier in this chapter (section 5.2).

Table 5.4 shows the number of higher education major awards gained by learners in the private education sector in 2010. For the most part, these awards were accredited by HETAC.⁷³ HETAC awards are placed on the National Framework of Qualifications (NFQ); other awards are aligned with the NFQ.

Table 5.4 Major Awards for Private, Independent 3rd Level Colleges, by Field & NFQ Level, 2010

Field	NFQ 6/7	NFQ 8	NFQ 9	Total
Education	215	736	0	951
Humanities & Arts	47	162	60	269
Soc. Science, Bus. & Law	354	915	127	1,396
Science, Maths & Computing	3	31	61	95
Eng., Manu. & Const.	47	28	0	75
Health & Welfare	186	180	43	409
Total	852	2,052	291	3,195

Source: HETAC, IMI

⁷² Appendix B details these professional institutes.

⁷³ In addition, the data includes some non-HETAC awards made to learners at the Irish Management Institute (IMI); these awards were made by universities.

There were almost 3,200 higher education awards (major awards) made by private education and training providers in 2010. Of these, almost two thirds were made at NFQ level 8, mostly for courses in one of two fields of learning: social science, business and law (915 awards) or education (736 awards). In addition, there were 1,540 minor and special purpose awards made, of which 1,221 were in social science, business and law (not shown in Table 5.4).

The data in Table 5.5 details the number of qualifications made to those studying through

- professional institutes (e.g. Institute of Bankers)
- selected private FET colleges (whose awards are made by City & Guilds and ITEC).

Many of the awards presented in this section are aligned with the National Framework of Qualifications (e.g. ACCA accountancy awards) or the UK equivalent (Qualifications and Credit Framework for England and Northern Ireland). However, as this is not the case for all qualifications detailed here, the data has been categorised, in consultation with the data providers, as further education and training, undergraduate level or postgraduate level.

Almost 4,800 learners gained a qualification in 2010 through professional institutes or private FET providers. Of these, 55% were at postgraduate level, 41% undergraduate level and the remaining 4% in further education and training. Accountancy and finance made up the vast majority of qualifications, with just over one half at postgraduate level; this was followed by 477 qualifications in social science, business and law (most of which were for law).

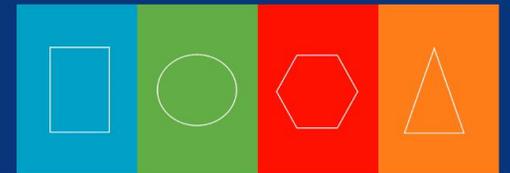


Table 5.5 Awards and Qualifications 2010 (Professional Bodies and Selected other Providers), by Field and NFQ Level, 2010*

Field	FET	Under-graduate	Post-graduate	Total
Eng. & computing	111	-	-	111
Soc. Science, Bus. & Law	1	-	476	477
Accountancy & Finance	-	1,956	2,150	4,106
Health & welfare	7	-	-	7
Services	78	-	-	78
Total	197	1,956	2,626	4,779

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

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

5.3.3 Irish Students Abroad

Every year a number of Irish students opt to pursue all or part of their higher education in countries outside of Ireland. This section examines (a) those enrolled in higher education programmes abroad and (b) Irish ERASMUS students who went to a foreign university as part of the higher education programmes in which they were enrolled in Ireland.

The OECD Education online database holds data on the distribution of international students by, *inter alia*, country of origin and level of education. Levels of education are classified according to ISCED⁷⁴ levels. The ISCED levels broadly correspond to the following categories in Irish higher education. Tertiary Type A (honours bachelor degree/master degree); Tertiary Type B

(higher certificate/ordinary degree) or advanced research (PhD level).

There were over 17,500 Irish domiciled students enrolled in higher education institutions in other OECD countries in 2009 (Table 5.6). The UK had the highest number with a total of 15,360 enrolments. The United States was the second most popular destination for Irish domiciled students, with more than 1,000 enrolments.

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

Table 5.6 Irish Students' Enrolments in OECD Countries*, 2009

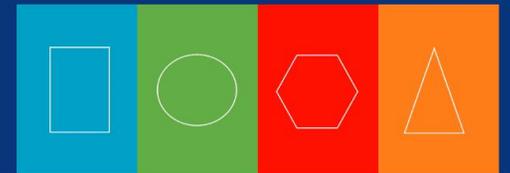
Country	Tertiary A	Tertiary B	Advanced Research	Un-specified	Total
UK	12,290	2,030	1,040	-	15,360
USA	-	-	-	1,042	1,042
Germany	318	-	-	-	318
Australia	190	3	25	-	218
Canada	89	3	15	-	107
Spain	92	11	7	-	110
New Zealand	21	16	16	-	53
Others**	314	8	23	-	345
Total	13,314	2,071	1,126	1,042	17,553

Source: OECD online database

* Excluding Ireland.

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

⁷⁴International Standard Classification of Education (ISCED).



The number of Irish domiciled students abroad grew between 2008 and 2009 (by 3%, or 400 students), thereby partially reversing the 5% decline observed the preceding year where there were almost 900 fewer Irish domiciled students abroad compared to 2007.

The European region action scheme for the mobility of university students (ERASMUS) is a programme that enables higher education students to study or do a work placement for three to 12 months in one of 30 other European countries as part of their studies⁷⁵. 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 section 5.3.1 of this report.

Table 5.7 shows the numbers of outgoing Irish students over the period 2008/09 and 2009/10. In 2009/2010, the number of ERASMUS students reached its highest number to date: 2,128 students went abroad that year, of which 528 were work placement students.

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

Table 5.7 ERASMUS Students from Ireland by Destination Country, 2007/08-2008/09

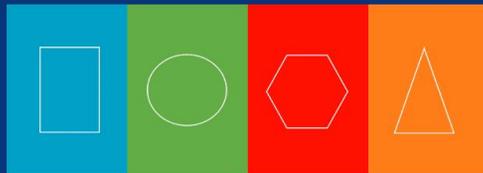
Destination Country	2008/09	2007/08
France	473	514
Spain	316	391
Germany	252	251
UK	224	238
Netherlands	86	121
Italy	84	99
Others*	401	514
Total	1,836	2,128

Source: European Commission

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

**Includes: Other EU countries as well as Iceland, Liechtenstein, Norway, Croatia, and Turkey.

⁷⁵ ERASMUS participating institutions are located in the EU as well as Norway, Iceland and Turkey.



Section 6 Employment Permits

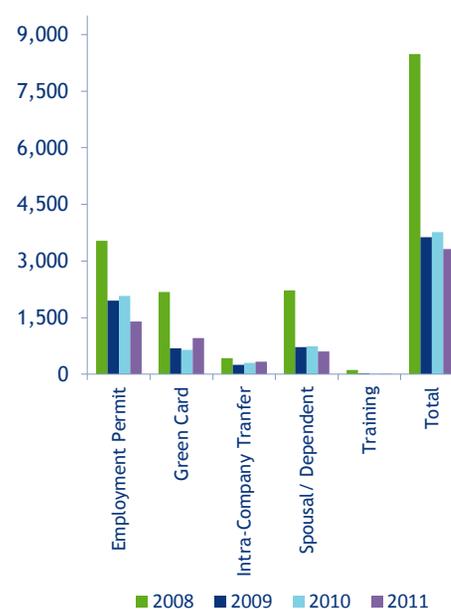
Non-EEA nationals (except in a number of cases),⁷⁶ and Romanian and Bulgarian citizens⁷⁷ are required to obtain an employment permit from the Department of Jobs, Enterprise and Innovation (DJEI) in order to take up employment in Ireland. There are various types of permits: employment permits, green cards, spousal/dependants, intra-company transfers and training permits.

The trend in the number of new employment permits issued serves as an indicator of the types of job vacancies that employers in Ireland cannot fill due to an insufficient supply of qualified/experienced candidates in the EEA (excluding Romania and Bulgaria).

Despite the recession, employers continue to source workers from outside the domestic labour market. There were just over 3,300 new⁷⁸ employment permits issued to non-EEA,

Romanian and Bulgarian nationals in 2011 – representing a 12% decrease on the number issued in 2010 and over a 60% reduction on the number issued in 2008 (Figure 6.1).

Figure 6.1 New Permits by Type, 2008-2011



Source: DJEI

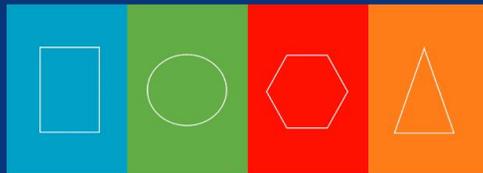
When interpreting employment permit data, the following should be borne in mind:

- the number of work permits issued represents an over-estimation of the true annual inflow of non-EEA, Romanian and Bulgarian workers into the Irish labour market because not all new employment permits are issued to first time applicants; for instance, when an employment permit holder is made redundant, a new permit is issued rather than the old permit being renewed
- from June 2009, the standard employment permit eligibility criteria (which includes a labour market test, the restriction to vacancies in eligible job

⁷⁶ The exemptions apply to non-EEA nationals in the following cases: non-EEA nationals in the State on a Work Authorisation/Visa; non-EEA workers legally employed in one Member State who are temporarily sent on a contract to another Member State (the Van der Elst Case or Freedom to Provide Services); non-EEA nationals who have been granted permission to remain in the State on one of the following grounds: persons who have been granted permission to remain as a spouse or dependant of an Irish/EEA national; persons with permission to remain as the parent of an Irish Citizen; persons who have been given temporary leave to remain in the State on humanitarian grounds, having been in the Asylum process; persons who have been granted explicit permission from the Department of Justice and Equality to remain resident and employed in the State; persons who are registered students; and Swiss nationals (the European Communities and Swiss Confederation Act, 2001, which came into operation on 1 June 2002 enables the free movement of workers between Switzerland and Ireland, without the need for employment permits).

⁷⁷ The restrictions on access to the Irish labour market by Romanian and Bulgarian nationals have been extended until the end of 2013.

⁷⁸ While a number of employment permits are renewed annually, the analysis focuses solely on the number of new permits issued as it allows for the identification of the most recent occupations sourced from outside the EEA.



categories and the payment of the standard application fee) apply to spouses of new employment permit applicants; however, spouses of employment permit holders who obtained their permits prior to June 2009 and spouses of Green Card holders are not subject to the eligibility criteria.

6.1 Employment Permits

An employment permit is a type of permit issued for occupations which have been identified as being difficult to source in the Irish labour market and for which the annual salary on offer is between €30,000 and €60,000 – i.e. it is available for eligible occupations with an annual salary specified in this range which are not covered under the green card scheme. However, only in exceptional circumstances are employment permits issued for positions with an annual salary below €30,000. In either case, work permit applications are not considered for any job categories specified in the ineligible job categories list.

Applications for employment permits are subject to a labour market needs test: the employer must advertise the vacancy with the FÁS/EURES employment network for at least eight weeks and additionally in local and national newspapers for at least six days to ensure that no suitable candidate from the EEA (excluding Romanian and Bulgarian nationals) can be found.

Due to the downturn in the Irish economy, the DJEI introduced revised eligibility requirements for persons applying for their first work permit in Ireland on or after 1 June 2009 and strengthened the qualifying conditions for the granting of new work permits to non-EEA nationals for occupations

requiring lower skills/qualifications and vacancies which could increasingly be filled by Irish or EU citizens.

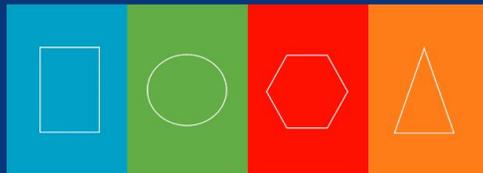
There were just over 1,400 new employment permits issued to non-EEA workers in 2011. Of these, 20% were issued to Romanian and Bulgarian nationals.

The overall number of employment permits declined by approximately one third between 2010 and 2011. Despite this decline, the number issued under this scheme continued to account for the largest share of all permits issued across the different schemes in 2011 – accounting for just over 40% – which represents a decline on the share of 55% issued in 2010.

The largest number of new employment permits was issued to non-EEA nationals for positions in the ICT sector in 2011 – at just over 370 – equivalent to 27% of all new employment permits issued (Table 6.1). This represents more than a two fold increase in the share issued in 2010.

This was followed by the number that was issued for positions in the healthcare sector – with just over 330 new employment permits issued – accounting for almost one quarter of all new employment permits issued in 2011 – representing a 10% reduction on the number that was issued in 2010. Although the annual number declined during that period, its share of all new employment permits issued increased from 18% to 24%.

There were also a considerable number of new employment permits issued for positions in the services and catering sectors in 2011 – just over 190 and almost 160 respectively. However, there were significant absolute and



relative declines recorded for the number of new employment permits issued for positions in both sectors – decreases of just over 200 each or almost 60% and just over 50% respectively. These two sectors accounted for the largest decreases in the share of the total number of new employment permits issued between 2010 and 2011. The share for the services sector declined from 19% to 14%, while it decreased from 18% to 11% for the catering sector.

Most of the occupations which featured among the top five occupations for which new employment permits were granted in 2010 – continued to remain within this ranking in 2011 (Table 6.2).

The largest number of new employment permits, at 275, was issued to non-EEA medical practitioners in 2011.⁷⁹ While there was a 4% decrease in the number issued between 2010 and 2011, the share increased from 14% to 20%. The second largest number was issued to non-EEA programmers and software development professionals (just over 170). The number issued increased by one third between 2010 and 2011, with a doubling in its share of all new employment permits issued to 12%.

⁷⁹ It should be noted that the number of non-EEA doctors employed through the employment permit scheme represents an under-estimation of the true inflow of non-EEA doctors into the Irish labour market. Due to the difficulty in recruiting non-EEA NCHDs (non-consultant hospital doctors) – particularly for senior house officer or registrar positions to the Irish public health service and trainee specialist positions (excluding only intern positions), an alternative administrative route was introduced in mid-June 2010. Non-EEA NCHDs who have job offers for such positions are granted Stamp 1 immigration status by the Department of Justice and Equality – which allows them to reside and work in the State without the requirement to hold an employment permit for a specified period of time. The data on the number of non-EEA doctors issued Stamp 1 immigration status is not available.

In 2011, there were just over 90 and 50 new employment permits issued to non-EEA chefs and cleaners respectively. The number issued to workers in these occupations declined by almost 60% and just over 50%, respectively, between 2010 and 2011.

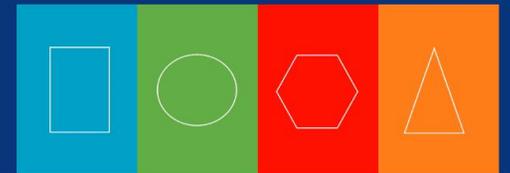
The number issued to non-EEA marketing associate professionals increased by over 50% to approximately 40 in 2011.

6.2 Green Cards

The green card scheme applies to all occupations with an annual gross salary of €60,000 or more (other than certain ineligible job categories and those which are contrary to public interest) and to a restricted list of occupations with an annual gross salary in the range of €30,000-€59,999. This restricted or eligible list only applies to selected occupations where high level strategic skill shortages exist – i.e. mainly professional and associate professional occupations in the areas of ICT, healthcare, financial services, education and science and engineering.

However, since April 2009, a number of healthcare occupations (e.g. physiotherapists, psychologists) and finance occupations (e.g. fund accountants, hedge fund specialists) and marketing managers and specialist managers have been removed from the green card eligibility list. However, marketing managers and specialist managers continue to be eligible for green cards provided the annual salary payable to the job holder is €60,000 or more.

It should be noted that in the case of Romanian and Bulgarian nationals, applications for new green cards for jobs with an annual salary between €30,000 and €59,999 continue to be considered in line with



the original green card eligibility requirements published by the DJEI in January 2007. All occupations for which the annual salary on offer is €60,000 or more continue to be eligible for green cards.

Unlike in the case of employment permit applications, a labour market needs test is not required prior to making a green card application.

There were just over 950 new green card permits issued to non-EEA nationals in 2011, representing almost a 50% increase on the number issued in 2010. This is in contrast to the modest decrease of 6% recorded in the previous year. However, the number issued in 2011 represents almost a 70% reduction on the peak number of 2,971 issued in 2007.

The number of green cards issued in 2011 accounted for almost 30% of all new employment permit types issued in that year – significantly above the share of 17% in 2010.

The largest number of new green card permits was issued to non-EEA nationals employed in the IT and healthcare sectors in 2011 (Table 6.1) – this was the situation that prevailed in the previous year. There were almost 520 and just over 170 new green card permits issued for positions in these sectors in 2011 respectively – representing an increase of 87% and 13% on the number issued in these respective sectors in 2010.

The share of green cards issued for positions in the ICT sector increased from 43% in 2010 to 54% in 2011, while it decreased from 23% to 18% in the healthcare sector.

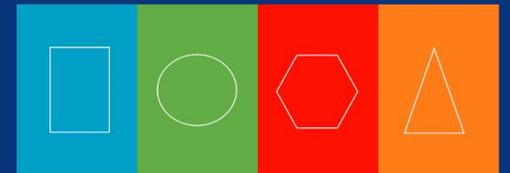
The top five occupations for which the largest number of new green card permits was issued in 2011 remained the same as those in 2010 (Table 6.2). These occupations were programmers and software development professionals; nurses; IT business analysts, architects and systems designers; chartered and certified accountants; and information and telecommunications professionals (Table 6.2).

At 235, the largest number of green card permits was issued to non-EEA programmers and software development professionals in 2011, accounting for one quarter of the total number of new green card permits issued in that year. This was followed by the number issued to non-EEA nurses and IT business analysts, architects and systems designers – at just over 130 and 120 respectively – each accounting for approximately 14% of the total number of all green cards issued in 2011.

The number of new green card permits issued to non-EEA nationals employed in each of these occupations increased over the period 2010-2011. The demand for non-EEA programmers and software development professionals and IT business analysts and systems designers was particularly strong – with considerable annual absolute increases in the number of new green card permits issued. While the number of new green card permits issued to both non-EEA nurses and accountants increased during the same period, the absolute increases were relatively modest.

6.3 Intra-Company Transfers (ICT)

The ICT scheme was designed to facilitate the transfer of senior management, key personnel or trainees who are foreign nationals from an overseas branch of a multinational



corporation to its Irish branch. The applicant (i.e. the employee or transferee) must be earning at least €40,000 and must have been working for at least 12 months with the overseas company prior to the application for an ICT transfer permit. A labour market needs test is not required for a permit under this scheme.

There were almost 340 permits issued to non-EEA nationals employed under this scheme in 2011 – representing a 13% increase on the number issued in 2010.

The largest share of all permits issued under this scheme was for ICT and manufacturing occupations in 2011 – accounting for almost 40% and 35% of the total number issued (Table 6.1).

Almost 30% of all the permits issued in 2011 were for managerial positions, while just under an additional 50% and 20% were for professional and associate professional positions respectively.

6.4 Employment Permits for Spouses and Dependants of Employment Permit Holders

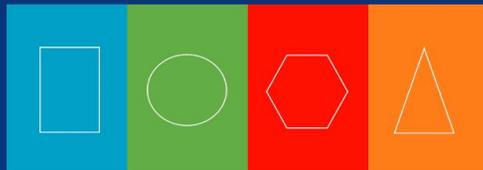
This scheme was introduced to allow the spouses and dependants of employment permit holders (i.e. green cards or employment permits) to apply for an employment permit to work in Ireland. This scheme currently applies only to the spouses and dependants of employment permit holders who applied for their first employment permit before 1 June 2009. Applications under this scheme are not subject to a labour market needs test and application fees.

Given that the spouses and dependants of employment permit holders who applied for their first work permit on or after 1 June 2009 are no longer considered for an employment permit under this scheme, there has been a significant decline in the number of spousal/dependant permits issued. The number decreased by over 130 or 18% between 2010 and 2011 to 606, while it decreased by 73% since 2008.

The largest number of spousal/dependant permits was issued for positions in the healthcare sector in 2011 – a total of just over 240 – accounting for 40% of all permits issued to spouses and dependants. This was followed by the number issued for positions in the services and catering sectors – a total of almost 100 and 70 respectively – accounting for 16% and 11% of all permits issued to spouses and dependants (Table 6.1).

The largest number of spousal/dependant permits was issued for nursing auxiliaries and assistants in 2011 – just over 190 – accounting for just under one third of the total number of spousal/dependant permits issued in that year.

There were a relatively small number issued to kitchen and catering assistants, sales and retail assistants, cleaners and domestics and chefs – in the range of 24-40 – or accounting for between 4% and 6% of all spousal/dependant permits issued in 2011. The number of spousal/dependant permits issued to those working in each of these occupations declined between 2010 and 2011. The most pronounced decrease – at 45% – was for kitchen and catering assistants.



6.5 Training

Employment permits are also issued to non-EEA, Romanian and Bulgarian nationals undertaking training in Irish-based companies. There were 15 new employment permits issued for training purposes in 2011, compared with only 4 issued in 2010. The majority of these were issued to business analysts employed in the manufacturing sector.

Table 6.1 New Employment Permits by Sector, 2011

Sector*	Employment Permit	Green Card	ICT	Spousal	Train.ng	Total
Agriculture	57	2	4	33		96
Catering	157	-	-	69		226
Construction	23	8	1	2		34
Domestic	29	-	-	14		43
Education	53	17	-	13		83
Entertainment	19	-	1	-		20
Financial	42	92	51	9	1	195
Government	1	1	-	1		3
Healthcare	333	171	-	241		745
IT	374	517	131	49		1,071
Legal Services	-	-	-	1		1
Manufacturing	13	54	118	11	13	209
Research	4	3	-	1		8
Retail	21	1	6	33		61
Services	191	82	25	99	1	398
Sport	38	3	-	2		43
Tourism	37	2	-	26		65
Transport	11	2	-	2		15
Total	1,403	955	337	606	15	3,316

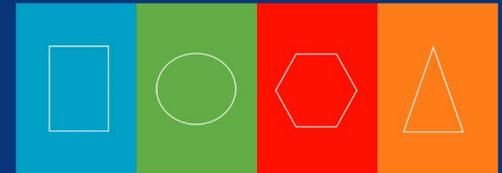
Source: DJEI

*Sectors are defined by the DJEI.

Table 6.2 New Employment Permits by Type and Most Frequent Occupations, 2011

Type of permit by occupation	New permits	%
Employment permit (of which)	1,403	100%
Medical practitioners	275	20%
Programmers & software development professionals	174	12%
Chefs	95	7%
Cleaners & domestics	55	4%
Marketing associate professionals	41	3%
Other	360	38%
Green card (of which)	955	100%
Programmers & software development professionals	235	25%
Nurses	131	14%
IT bus. analysts, architects & systems designers	120	13%
Chartered & certified accountants	67	7%
IT & telecommunications professionals, n.e.c.	42	4%
Other	595	62%

Source: DJEI



Section 7 Vacancies

The number of job vacancies has declined considerably since the beginning of the recession. In quarter 4 2011, the job vacancy rate⁸⁰ was estimated at 0.7%,⁸¹ which was lower than the EU 27 average of 1.7% and well below the rate recorded during the boom of 3.8%.⁸² However, although still low, the job vacancy rate improved by 0.1 percentage points compared to the rate in quarter 4 2010.

7.1 Notified Vacancies⁸³

Despite the recession, job vacancies, as advertised through the FÁS Jobs Ireland databank, IrishJobs.ie and the Irish Times, have continued to arise in the Irish labour market, although at a much lower level than at the peak (Figure 7.1). In 2011, the overall number of vacancies advertised through FÁS and Irishjobs.ie was higher than in 2010.

Figure 7.1 New Notified Job Vacancies (three-month moving average)⁸⁴



In 2011, vacancies advertised through Irishjobs.ie and the Irish Times were mostly concentrated in professional and associate professional occupations. Newly advertised vacancies through FÁS Jobs Ireland were concentrated in personal services (e.g. caring and leisure) and associate professional occupations as well as skilled trades and sales/customer service occupations (Figure 7.2).

⁸⁰ The job vacancy rate (JVR) measures the proportion of vacant posts to the number of employees.

⁸¹ CSO Hours and Employment Costs Survey and Eurostat, URL: http://epp.eurostat.ec.europa.eu/portal/page/portal/la_bour_market/job_vacancies/main_tables

⁸² CSO (2009) *Employee Skills, Training and Job Vacancies Survey 2006*.

⁸³ Several issues arise with advertised job vacancy data including the following: vacancies may be advertised through channels not captured in the analysis leading to an underestimation of the true demand; vacancies may be advertised simultaneously through several channels leading to an overestimation of the true demand; the extent to which vacancies arise due to expansion demand (the creation of a new position by an employer), replacement demand (a person leaving an existing position) or for other reasons is unclear.

⁸⁴ A break occurred in the IrishJobs.ie data between May 2008 and July 2008 and is, therefore, excluded from the trend analysis reported here. The Irish Times data is only available from the beginning of 2010 due to coding issues with this data.

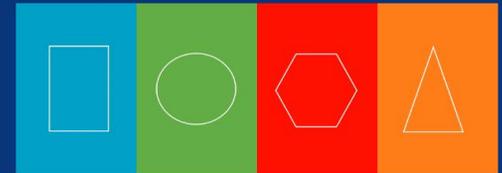
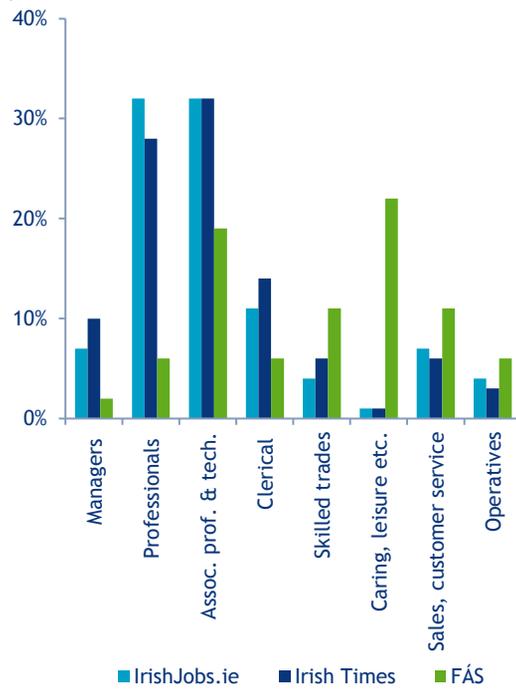


Figure 7.2 Vacancies by Occupational Group (%), 2011

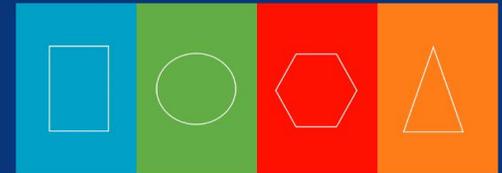


Managers

- During 2011, managerial vacancies were most frequently advertised in the following sectors: sales (e.g. retail and wholesale managers; international marketing and sales directors), ICT; insurance and financial services, (e.g. arrears management) and human resources (e.g. HR managers)
- Specific skills stated as a requirement in the vacancies descriptions for managers included expertise in Lean Six Sigma (manufacturing), accounts receivable and collections expertise; health and safety management expertise; SAP knowledge; procurement/purchasing skills; supply chain and logistics skills; and foreign languages (particularly for sales-related vacancies)
- The majority of managerial vacancies advertised in 2011 specified that candidates should have significant work experience.

Professionals

- During 2011, professional vacancies were advertised most frequently in the following sectors:
 - ICT (e.g. software developers, network experts, and IT business analysts)
 - engineering and utilities (e.g. electrical, design, electronic, mechanical, process and quality control)
 - science, pharmaceuticals and food (e.g. microbiologists, chemical scientists)
 - business, insurance and financial services (e.g. chartered accountants, management consultants, regulatory professionals and advertising accounts managers)
 - healthcare
 - production, manufacturing and materials
 - education (e.g. TEFL and foreign language teachers, higher education lecturers).
- Foreign language skills, particularly German and French, were a feature of many professional vacancies in ICT, engineering and finance. Security expertise and quality assurance skills were mentioned for some IT specialist, scientist and engineer positions.
- More than one half of professional vacancies stated a third level qualification as a requirement, while almost 90% required a minimum of at least two years' experience.
- A number of the advertised positions for professionals were for positions located outside of Ireland.



Associate Professionals

- Vacancies for associate professionals were most frequently advertised in the following sectors:
 - sales, marketing and customer care (inside sales representatives, marketing managers)
 - IT (IT technical support)
 - Accountancy, insurance and finance (e.g. financial analysts, fund accountants, claims and fraud analysts)
 - human resources
 - production, manufacturing and materials (e.g. quality control technicians)
 - engineering and utilities (e.g. manufacturing/mechanical technicians)
 - science, pharmaceuticals and food (food, pharmaceutical, chemical laboratory technicians).
- Foreign language skills (especially German, French and Nordic languages) were specified as a requirement for roles in IT technical support, inside sales, claims and collections. Business-to-business sales skills were in demand for some sales roles. Specific profiles also included combined skills sets such as e-business with marketing skills and/or language skills.
- Over a third of the jobs advertised for associate professionals required higher education qualifications; more than three quarters required a minimum of two years' experience.

Administrative/Secretarial

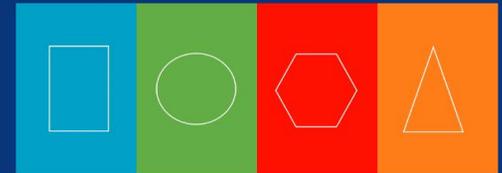
- The sectors for which administrative/secretarial vacancies were most frequently advertised were:
 - accountancy, insurance and finance (clerks in accounts payable &

receivable, credit controllers, and fund accountants)

- secretarial and administration (receptionists, personal assistants),
- sales and customer service (e.g. sales and marketing administration, customer support)
- logistics and distribution (freight clerks, logistics co-ordinators, documentation clerks)
- Language skills including German, French, Spanish and Dutch were frequently mentioned as a requirement in vacancies for roles in accounts payable, payroll, credit control, credit analysts, and financial accounts; German, in particular, was in demand for some freight forwarding and logistics administrator positions.
- More than a third of administrative and secretarial positions did not state any education requirements while a further quarter required a qualification below third level. The majority (59%) of administrative/secretarial occupation vacancies required at least two years' experience.

Skilled Trades Occupations

- Since the recession, advertised vacancies for skilled trades occupations have shifted away from the construction sector towards other sectors of employment. In 2011, vacancies for these occupations were in engineering and utilities (e.g. electricians and electrical fitters, metal working production and maintenance fitters); ICT (computer repair technicians); hotel and catering (chefs); and food processing (butchers/abattoir workers).



- The vast majority (almost 80%) of vacancies for skilled trades occupations required at least two years' experience.

Caring Leisure and Other Service Occupations

- Vacancies for caring, leisure and other service occupations were concentrated in the healthcare sector (e.g. care workers); vacancies for hairdressers were also frequently mentioned
- Almost one half of advertised vacancies for caring, leisure and other service occupations specified 0-2 years' experience as a requirement.

Sales and Customer Service Occupations

- During 2011, the vacancies for sales occupations were concentrated in the following sectors:
 - customer services (e.g. customer support)
 - sales (e.g. telesales)
 - retail, wholesale and purchasing (retail sales assistants)
 - financial services and insurance (e.g. debt collectors).
- The majority of telesales, on-line and customer care vacancies required language skills, particularly German and French, followed by Italian, Danish, Norwegian, Spanish and Dutch. Many vacancies required at least two languages. Some retail and telesales vacancies also specified technical, ICT or electronic skills.
- A third level qualification was required for a minority (23%) of customer service occupations; no minimum education requirements were specified for more than a fifth. The majority of vacancies in this category required up to two years' experience.

Elementary Occupations

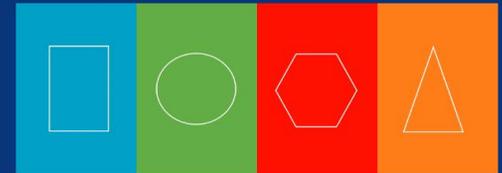
- Vacancies for elementary occupations were concentrated in the hotel and catering sector (e.g. cleaners, kitchen and catering assistants, bar and waiting staff). Other vacancies spanned a range of sectors (e.g. security guards, storage and warehousing staff).
- Education qualifications were not a feature of almost two in three advertised vacancies for elementary occupations; however, the vast majority required at least some experience, with just 6% stating no experience as a pre-requisite.

7.2 FÁS (SLMRU) Recruitment Agency Survey

Every six months, the SLMRU conducts a survey of recruitment agencies in Ireland in order to capture their views on the occupations which, in their experience, have proved to be difficult-to-fill (DTF) in the preceding six months. The difficulty in filling a vacancy may be due to a lack of skilled candidates, but also due to the unwillingness of skilled candidates to take up employment in a particular occupation.

The findings from the analysis, which is qualitative in nature, of the most recent survey, conducted in April 2012, are presented below.

- Although the overall demand remains weak, there continues to be a number of DTF mentions; furthermore, when compared with the situation last year, the number of DTF mentions is higher.
- Similar to the trend identified in 2010 and 2011, the DTF mentions in 2012 remain concentrated at the higher end of the skills spectrum: approximately two thirds of DTF mentions were for professionals;



one-in-six were for associate professionals while sales and customer services roles accounted for one-in-twelve.

- Approximately one half of DTF positions were filled by Irish candidates; 40% by EU candidates and the remainder were sourced from outside the EU.
- Approximately one third of DTF posts were in the ICT sector. A further one third of DTF mentions were for positions in high-tech manufacturing (e.g. biopharma) as well as more traditional manufacturing segments (i.e. agri-food), where skills related to process and quality control engineering were in demand. The remaining DTF mentions were mostly for roles in the financial and insurance, and health sectors.
- While traditionally DTF posts would generally be associated with increasing salaries, as a result of the recession, it would appear that this was the case for only about one third of the total DTF posts filled in the 12 months prior to April 2012, with the majority enjoying the same pay rates as a year ago.
- Approximately one half of DTF placed candidates were offered permanent posts and approximately one third were employed on contract. The contract market expanded when compared to the preceding year, with those with highly specialised IT skills (e.g. Java and .net) or (to a lesser extent) financial skills sets (financial restructuring experts) often commanding higher rates of pay when compared to permanent posts.
- Employers are experiencing difficulty in sourcing highly skilled individuals with relevant experience and commercial awareness.
- Cross-disciplinary skills, spanning a variety of areas, were also mentioned as

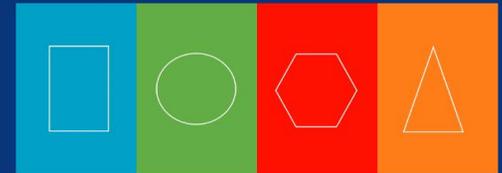
difficult to source (e.g. a postgraduate qualification in engineering and extensive experience in the pharmaceutical or biotech industry (in areas such as Active Pharmaceutical Ingredients (API), Drug Product Formulation, etc.); project management with relevant regulatory and environmental skills (bio-pharma sector)).

- The internship programmes were viewed as a positive contribution to responding to employers' needs for job-ready candidates.
- While employers were in the main satisfied with the quality and quantity of Irish graduates, apart from the issues regarding relevant experience and being as job-ready as possible, they felt that additional efforts are needed on the supply side in relation to languages and IT skills; there was also some concern that graduate emigration has begun to adversely affect the supply of skills and the labour market.

The occupations that were mentioned as being the most difficult to source included:

- Software engineers: particularly, designers and developers with specific skill sets such as:
 - sophisticated database architecture, maintenance and operations (e.g. SQL, Transact-SQL, Oracle)
 - Java-related applications (including .Net, C# , C++, Summit, UX /UI⁸⁵)
 - open source applications (e.g. Linux, Flash/Flex, Ruby on Rails)
 - online applications (e.g. PHP, CSS, HTML, Interactive visual, MS Sharepoint)

⁸⁵ User Experience/User Interface; refers to Java online applications.



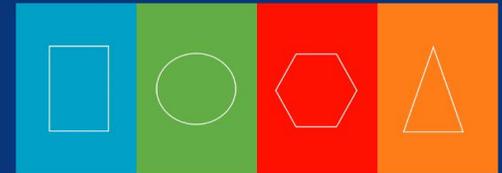
- mobile app development (also with HTML5, Objective C, J2ME) for iPhone and Android platforms
- cloud computing
- Linux/Unix for gaming technologies
- IT security skills for the financial sector.

While some experience was desirable (1-5 years), the demand was particularly strong for those with expertise in more than one of the above areas (e.g. expertise in both Java and in the migration of CSM/CRM⁸⁶ applications to web based or cloud computing architecture and software as a service (SaaS) applications), indicating that the skills mix was more sought after than the length of experience.

- Engineers (other than software) were the second most frequently cited DTF occupation; mentions were mostly in the biotechnology, pharmaceutical, medical device and chemical industries; they included:
 - chemical and product formulation engineers and analysts, especially those with an API background
 - production, process and process safety engineers
 - quality control engineers (for the food and high-tech industries)
 - regulation engineers
 - industrial hygiene engineers
 - validation engineers (telecommunications sector)
 - mechanical engineers (process automation, system control engineers (including Six Sigma specialists) and design engineers)

⁸⁶ Customer service management/customer relationship management.

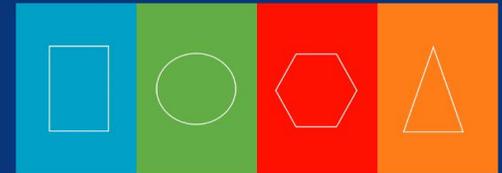
- electrical engineers with substantial experience in power generation, transmission and distribution (wind energy, high tension power, sub-station power engineers).
- Business professionals and associate professionals with sophisticated business skills mixes (e.g. IT know-how and communication systems expertise in applications such as SAP, ORACLE and other Enterprise Resource Planning (ERP) systems).
- Finance roles:
 - professionals in credit and risk management (e.g. risk analysts, credit specialists, actuaries) and financial regulation compliance (financial services regulation and compliance with Basel Accords, especially BASEL II and III)
 - accountants with experience in corporate solvency and financial restructuring
 - specialists in insurance business (underwriting and claim handling).
- Healthcare occupations:
 - medical doctors (non-consultant hospital doctors, consultant radiologists)
 - radiographers (CT and MRI) and sonographers
 - nurses (e.g. clinical nursing managers, advanced nursing practitioners in intensive care, theatre nursing, radiology, and general nurses for elderly people care)
 - in addition, some specific skills were also difficult to source, such as senior clinical psychologists and senior therapists (speech and language),



notwithstanding the fact that the numbers being recruited for the above and general healthcare posts have been considerably reduced

- caring roles i.e. elderly care in nursing home settings or in their own homes; qualified child care and early education staff.⁸⁷
- Scientists: biologists, chemists (e.g. product formulation, analytical development, R & D roles in biotechnology).
- Sales and customer service support:
 - contact centres roles (telesales and customer support) with many posts requiring fluency in European language skills (German, Italian, French and Nordic) and/or relevant product knowledge
 - online digital marketing and sales roles (e.g. gaming and online gambling sector)
 - senior technical and specialised sales representatives, often in a business-to-business (B2B) capacity (e.g. IT, telecommunications, gaming, fast moving consumer goods (FMCG)).
- Managers: R & D project managers in biotechnology (bio-pharma sector) and financial managers (e.g. client relationship managers in investment banking).
- Administrative occupations: multilingual roles in niche areas (e.g. credit control, accounts payable, specialist roles in supply chain operations).
- Science, engineering and production technicians: DTF mentions were restricted to specialised roles such as IT online support, technical user support, IT testing and troubleshooting, and instrumentation and control roles in manufacturing (machinery, equipment and medical device sub-sectors).
- Skilled trades: the DTFs were limited to food preparation trades (butchers, deboners and fish-filleters).

⁸⁷ The demand for qualified childcare workers is possibly related to the sustained high number of births in Ireland since 2007 and the fact that all pre-school year leaders involved in the Dept. of Children and Youth Affairs' Early Childhood Care and Education (ECCE) programme must hold at least a level 5 major award in childcare/early education.



Section 8 Occupational Employment Profiles

This section examines employment trends by occupation. The statistical analysis covers the period 2007-2011 and, for selected indicators for quarter 4 2011.

Most of the data used in the analysis is presented in Table 8.1. This is followed by employment profiles for over 130 selected occupations, which are broken down into 17 broad groups.

Table 8.1 shows the demand and shortage indicators for the selected occupations and broad occupational groups which were used in the analysis of skills shortages.

Column 1 contains occupational titles; the list of occupations is based on the Standard Occupational Classification (SOC) 2010. In cases where the number of observations in an occupation generated employment figures of less than 3,000, two or more occupations were merged to form an occupational group. This was done in order to generate a sufficiently large number of observations to allow for statistical inference.

It should be noted that the occupational groups presented in this year's report are not directly comparable with those presented in previous bulletins. This is because the data has been re-classified and re-grouped to reflect the new SOC 2010.

Column 2 presents the employment stock figure for each occupation. Employment figures are reported as the annual average figures for 2011. Source: Analysis by FÁS (SLMRU) based on data provided by the CSO (QNHS), quarter 1 to quarter 4 2011.

Column 3 shows the percentage of females in an occupation. Source: Analysis by FÁS

(SLMRU) based on data provided by the CSO (QNHS), quarter 4 2011.

Column 4 shows the percentage of persons who work part-time in an occupation. Source: Analysis by FÁS (SLMRU) based on data provided by the CSO (QNHS), quarter 4 2011.

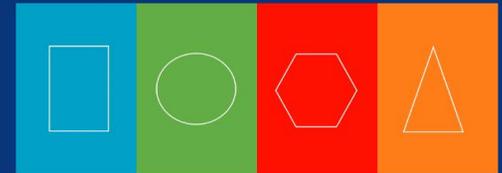
Column 5 provides an indication of the unemployment level in an occupation. The unemployment rate is calculated by dividing the number of unemployed persons aged 15 and over in an occupation by the sum of the number of employed and unemployed persons aged 15 and over in an occupation. As only persons who stated previous occupation are included in calculations, estimates may underestimate the true unemployment rate in an occupation.

The unemployment rate is indicated as follows:

- 'below average' for unemployment rates less than 14.3% (i.e. the national unemployment rate for quarter 4 2011)
- 'above average' for unemployment rates exceeding 14.3%.

To avoid issues with small sample size at this level of disaggregation, the unemployment rate could only be reported for occupations in which least 4,000 persons are employed. Source: Analysis by FÁS (SLMRU) based on data provided by the CSO (QNHS), quarter 4 2011.

Column 6 shows the percentage of persons aged 55 and over in an occupation. This indicator was used in combination with the appropriate replacement rate (Column 12) to estimate the replacement demand for an occupation. The age distribution of the workforce of an occupation skewed towards older age cohorts indicates likely higher retirement rates in the short to medium-term.



Source: Analysis by FÁS (SLMRU) based on data provided by the CSO (QNHS), quarter 4 2011.

Column 7 shows the percentage of non-Irish persons in an occupation. A higher than average proportion of non-Irish nationals in an occupation suggests that Irish employers had to recruit suitable candidates from abroad to fill vacancies. Source: Analysis by FÁS (SLMRU) based on data provided by the CSO (QNHS), quarter 4 2011.

Column 8 shows the percentage of persons who have attained a third level qualification in an occupation. Third level qualifications span NFQ levels 6-10. See Appendix A for the award types placed at these levels. Source: Analysis by FÁS (SLMRU) based on data provided by the CSO (QNHS), quarter 4 2011.

Column 9 shows the average annual rate of employment growth for an occupation for the period 2007-2011 (inclusive). These rates were used to assess employment growth trends. Source: Analysis by FÁS (SLMRU) based on data provided by the CSO (QNHS), 2007-2011.

Column 10 shows the annual number of new employment permits that were issued for an occupation in 2011. This information was used as an indicator of the demand for labour that could not be met from domestic or EEA sources (excluding Romania and Bulgaria). Source: Department of Jobs, Enterprise and Innovation.

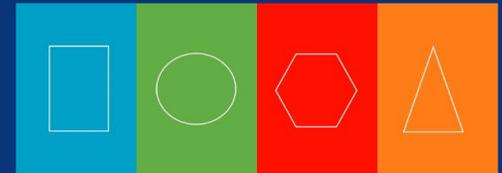
Column 11 presents the results of the FÁS (SLMRU) Recruitment Agency Survey conducted in April 2012. The occupations with mentions of difficult-to-fill vacancies reported by recruitment agencies are indicated by an 'X'. Source: FÁS (SLMRU) Recruitment Agency Survey.

Column 12 presents replacement rates for each occupation. The replacement rate indicates the share of employment in an occupation

which is expected to be lost annually due to retirement, illness, maternity leave, inter-occupational movements, emigration and death in service. Essentially, the replacement rate reflects the minimum number of persons required annually to preserve the existing employment stock for an occupation. Source: Current Trends in Occupational Employment and Forecasts for 2010 and 2020: Final Report to the Expert Group on Future Skills Needs (ESRI, 2006) – the replacement rates used in this report have been mapped onto the new occupational classification (i.e. SOC 2010) by the SLMRU.

Column 13 provides an indication of shortage for each occupation. The indicator was derived by considering all indicators as well as using additional information on vacancies, education and relevant qualitative information including recent and on-going EGFSN's sectoral studies. The following provides an explanation of the indicator of shortage:

- 'no shortage' is reported for occupations for which there are no apparent labour market imbalances
- 'skill shortage' refers to a situation whereby there is an insufficient number of individuals who have the required level of educational attainment, skills set and/or experience to meet the required labour market demand; it should be noted that the difficulty in filling vacancies may be due to a lack of skilled candidates, but also due to the unwillingness of skilled candidates to take up employment in a particular post (e.g. conditions of employment)
- 'labour shortage' refers to a situation whereby there is an insufficient number of individuals available to take up employment opportunities in a particular occupation; a labour shortage is typically associated with



occupations which require relatively lower levels of education, a shorter duration of training (e.g. on the job) and/or no previous experience.

- ‘inconclusive’ is reported for occupations for which the available quantitative information is insufficient for the identification of shortages.

For grouped occupations, an indication of shortage does not mean that all occupations in the grouping are in short supply.

The term ‘shortage’ within this report refers only to the situation whereby the supply of skills or labour from within the Irish workforce is insufficient to meet demand. It may be the case that there is a sufficient supply of skills or labour for the occupation in question within the EU or EEA. Consequently, there may not be a shortage from a European perspective.

Column 14 provides some further elaboration on the shortages identified in Column 13.

Using data from Table 8.1, individual occupations were examined in detail. The analysis covers the following:

- Science occupations
- Engineering occupations
- IT occupations
- Business and financial occupations
- Healthcare occupations
- Education occupations
- Social and care occupations
- Legal and security occupations
- Construction professional and associate professional occupations
- Construction craft occupations
- Other craft occupations
- Arts, sports and tourism occupations
- Transport and logistics occupations

- Administrative and secretarial occupations
- Sales and customer service occupations
- Operatives
- Elementary occupations (labourers).

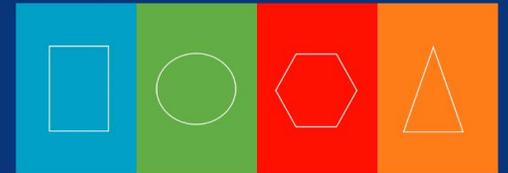
In general, occupations that are associated with the same sector of employment or occupations with similar duties were grouped together. The following information is provided for each occupational group:

- The level of employment (expressed as an annual average figure)
- Employment growth trends for the period 2007-2011
- Age profile – employment is grouped into the following age categories: persons aged 15-24, 25-54, and 55 years and older
- Educational attainment – employment is grouped into the following educational categories: persons with lower secondary education or less; higher secondary or further education and training (FET); and third level education.

Each section on the occupational profiles also contains a summary of the balance between the demand and supply. For each occupation, the estimated recruitment requirement was derived by combining expected expansion and replacement demand. In the short-term, most of the recruitment requirement for most occupations is expected to arise from replacement demand.

The supply of skills was approximated using the expected output from the formal education and training system⁸⁸. The expected output was derived using third level

⁸⁸It should be noted that it is possible that individuals do not work in the occupations for which they are trained.



enrolment and graduation data, as well as data from FÁS and other education providers.

Supply data at occupational level is not reported due to the complexity of linking course output to specific occupations (e.g. business courses can be a source of supply for numerous occupations). In addition, for the majority of occupations, there are no mandatory qualification requirements; this further complicates the task of determining supply. Thus, the intention is not to provide an exact quantification of the supply for each occupation but rather to obtain a general approximation.

By comparing estimates of demand and supply, an indication of potential shortage was derived. In addition, the other shortage indicators (e.g. employment permits, difficult-to-fill vacancies, etc.) were examined to reinforce the findings. The results also drew on conclusions from previous reports produced by the Expert Group on Future Skills Needs (EGFSN) and other qualitative information. The objective was to identify areas of shortages, without quantifying them.

Identified shortages are classified as skill or labour shortages. In some cases, an

indication of the persistence of shortages is also discussed. Given that the findings are based on current data, future shortages are only indicated in cases where there is clear evidence that the shortages will persist or if current trends in education provision indicate that future shortages will emerge.

A skills shortage may arise for a number of different reasons. For example, the shortage may reflect a temporary or a sustained increase in demand for a particular expertise, or a reduction in the number of students who are acquiring the relevant qualifications. The most effective way to alleviate a shortage will depend on the reason for which the shortage has arisen. For example, if the shortage is of a temporary nature, it may be more effective to source the scarce skills from abroad rather than to increase the number of student places in the relevant disciplines.

The purpose of this bulletin is solely to identify occupations for which shortages exist. The identification of the cause of these shortages and the appropriate (if any) policy response requires further research. The EGFSN's research programme includes a number of such studies.

Table 8.1 Demand and Shortage Indicators for Selected Occupations

Occupation	Number Employed (2011 Annual Average - '000s)	% Female	% Part-Time	Unemployment Rate (%)	% Aged 55 years and over	% Non-Irish Nationals	% Third Level Graduates	Average Annual Employment Growth Rate, 2007-2011 (%)	New Employment Permits Issued, 2011 (Number)	SLMRU Recruitment Agency Survey	Replacement Rate (%)	Shortage Indicator	Comment
Functional managers & directors	37.1	25.1%	6.2%	Below Average	23.4%	7.6%	61.3%	-3.4%	67		-1.5%	No shortage	
Production managers in manufacturing, mining & energy	11.4	25.2%	4.1%	Below Average	9.4%	3.2%	68.4%	2.7%	22		-1.5%	No shortage	
Financial managers & directors	4.6	41.5%	10.1%	Below Average	12.9%	6.3%	78.4%	-0.4%	27		-1.5%	No shortage	
Advertising, marketing, sales directors	4.3	25.9%	3.4%	Below Average	14.0%	10.5%	71.9%	3.3%	22		-1.5%	No shortage	
Human resource managers	4.1	79.9%	5.4%	Below Average	9.1%	1.8%	79.4%	10.2%	4		-1.5%	No shortage	
ICT specialist & project managers	12.9	30.2%	1.9%	Below Average	5.2%	11.4%	81.0%	4.5%	79		2.8%	Skill shortage	
Financial institution managers & directors	6.2	40.3%	2.8%	Below Average	10.9%	4.7%	69.4%	1.7%	6	X	-1.5%	No shortage	
Managers & directors in transport & logistics	7.1	12.6%	5.5%	Below Average	15.1%	6.9%	38.8%	-2.7%	9		-1.5%	No shortage	
Managers & directors in retail & wholesale	15.9	40.6%	6.3%	Below Average	8.3%	12.2%	40.4%	1.7%	12		-1.5%	No shortage	
Hotel & accommodation managers	5.6	57.7%	25.9%	Below Average	33.4%	8.5%	49.9%	0.0%	2		-1.5%	No shortage	

Occupation	Number Employed (2011 Annual Average - '000s)	% Female	% Part-Time	Unemployment Rate (%)	% Aged 55 years and over	% Non-Irish Nationals	% Third Level Graduates	Average Annual Employment Growth Rate, 2007-2011 (%)	New Employment Permits Issued, 2011 (Number)	SLMRU Recruitment Agency Survey	Replacement Rate (%)	Shortage Indicator	Comment
Restaurant managers	6.1	36.5%	7.9%	Below Average	4.6%	33.7%	54.6%	0.9%	5		-1.5%	No shortage	
Publicans	5.4	28.4%	9.2%	Below Average	37.0%	0.0%	17.1%	0.7%	0		1.7%	No shortage	
Leisure & sports managers	3.5	30.5%	4.8%		14.4%	7.7%	52.1%	19.2%	1		-1.5%	No shortage	
Managers & directors in other services	24.4	29.5%	14.8%	Below Average	33.1%	6.0%	41.8%	-0.7%	17		-1.5%	No shortage	
Chemical, biological & physical scientists	8.1	58.0%	9.4%	Below Average	11.3%	9.4%	98.0%	4.2%	17	X	2.8%	Skill shortage	High level niche areas
Other natural & social scientists; R&D managers	6.0	54.4%	9.6%	Below Average	15.5%	8.8%	93.6%	2.1%	21		2.8%	Skill shortage	High level niche areas
Civil/mining engineers	7.5	16.1%	15.3%	Below Average	15.4%	8.6%	98.3%	-7.8%	5		2.8%	No shortage	
Electrical & electronic engineers	3.4	6.7%	2.7%		11.0%	14.4%	86.1%	9.4%	7	X	2.8%	Skill shortage	High level niche areas
Production, process, design & development engineers	3.8	16.4%	0.0%		3.5%	4.4%	91.1%	7.6%	39	X	2.8%	Skill shortage	Niche areas
Quality control engineers; other regulatory professionals	3.8	37.9%	4.2%		8.5%	9.9%	95.8%	13.3%	12	X	2.8%	Skill shortage	Niche areas
Engineering professionals n.e.c.	4.0	11.2%	6.5%	Below Average	14.2%	10.0%	89.0%	-2.2%	36	X	2.8%	Skill shortage	High level niche areas
IT business analysts & systems designers	2.5	30.9%	6.5%		0.0%	19.9%	90.9%	-4.3%	176		2.8%	Skill shortage	

Occupation	Number Employed (2011 Annual Average - '000s)	% Female	% Part-Time	Unemployment Rate (%)	% Aged 55 years and over	% Non-Irish Nationals	% Third Level Graduates	Average Annual Employment Growth Rate, 2007-2011 (%)	New Employment Permits Issued, 2011 (Number)	SLMRU Recruitment Agency Survey	Replacement Rate (%)	Shortage Indicator	Comment
Programmers & software developers	14.8	20.6%	5.3%	Below Average	2.9%	18.8%	93.3%	7.5%	452	X	2.8%	Skill shortage	
Web designers & developers	2.3	56.6%	16.5%		0.0%	8.5%	72.0%	3.9%	18		2.8%	Skill shortage	
ICT professionals n.e.c.	6.9	20.1%	6.9%	Below Average	1.1%	11.1%	88.4%	2.6%	99		2.8%	Skill shortage	
Medical practitioners	11.5	31.4%	13.7%	Below Average	13.6%	30.5%	99.1%	4.2%	286	X	2.8%	Skill shortage	
Pharmacists	3.3	68.0%	15.0%		4.8%	7.2%	94.7%	0.4%	4		2.8%	No shortage	
Physiotherapists	3.7	75.4%	23.2%		14.7%	11.0%	100.0%	15.5%	8		2.8%	No shortage	
Occupational & other therapy professionals	3.9	89.9%	26.5%		13.6%	4.7%	96.3%	0.0%	4		2.8%	No shortage	
Nurses & midwives	55.6	91.9%	23.6%	Below Average	16.7%	16.3%	95.3%	-0.2%	150	X	2.8%	Skill shortage	High level niche areas
Other health professionals n.e.c.	10.0	69.0%	21.3%	Below Average	19.5%	5.7%	97.2%	2.2%	22	X	2.8%	Skill shortage	Niche areas
Higher & further education teaching profs.	12.2	44.0%	12.5%	Below Average	21.7%	13.7%	98.1%	-0.2%	22		2.8%	No shortage	
Secondary teachers	28.3	72.1%	14.2%	Below Average	15.4%	1.6%	98.4%	3.8%	20		2.8%	No shortage	
Primary & nursery teachers	39.4	88.7%	11.2%	Below Average	8.4%	1.6%	95.1%	-0.5%	0		2.8%	No shortage	

Occupation	Number Employed (2011 Annual Average - '000s)	% Female	% Part-Time	Unemployment Rate (%)	% Aged 55 years and over	% Non-Irish Nationals	% Third Level Graduates	Average Annual Employment Growth Rate, 2007-2011 (%)	New Employment Permits Issued, 2011 (Number)	SLMRU Recruitment Agency Survey	Replacement Rate (%)	Shortage Indicator	Comment
Teaching & other educational professionals	15.3	69.0%	36.9%	Below Average	25.0%	6.9%	84.5%	6.9%	7		2.8%	No shortage	
Barristers, judges, solicitors & related professionals	11.3	40.4%	8.7%	Below Average	17.8%	2.0%	98.5%	3.8%	6		2.8%	No shortage	
Accountants & tax experts	34.3	42.6%	8.8%	Below Average	8.1%	6.0%	96.4%	-0.6%	113	X	2.8%	Skill shortage	High level niche areas
Mgt. consultants, business analysts & project managers	6.8	35.7%	4.6%	Below Average	15.3%	15.2%	90.0%	8.7%	63	X	2.8%	Skill shortage	High level niche areas
Actuaries, economists & statisticians; other business professionals	6.0	50.0%	13.0%	Below Average	9.3%	22.0%	91.2%	-2.6%	18		2.8%	Skill shortage	High level niche areas
Architects	3.4	43.7%	26.4%		22.5%	9.1%	97.2%	-15.2%	1		2.8%	No shortage	
Architectural technologists, construction project managers & surveyors	4.8	10.4%	16.8%	Above Average	20.7%	2.2%	92.9%	-6.7%	1		2.8%	No shortage	
Social workers & welfare professionals	6.1	55.7%	13.0%	Below Average	23.9%	18.0%	90.9%	-1.3%	3		2.8%	No shortage	
Media professionals	5.3	37.7%	16.9%	Below Average	11.1%	6.9%	88.2%	-9.7%	3		2.8%	No shortage	
Laboratory technicians	6.9	59.7%	7.3%	Below Average	2.8%	10.0%	68.1%	-4.4%	4		2.6%	No shortage	
Electrical, electronic & engineering technicians	5.1	4.6%	0.0%	Below Average	10.0%	6.0%	52.1%	4.4%	11		2.6%	Skill shortage	Niche areas
Process & quality assurance technicians	3.2	40.3%	4.1%		3.8%	14.2%	82.3%	-6.1%	5		2.6%	Skill shortage	Niche areas

Occupation	Number Employed (2011 Annual Average - '000s)	% Female	% Part-Time	Unemployment Rate (%)	% Aged 55 years and over	% Non-Irish Nationals	% Third Level Graduates	Average Annual Employment Growth Rate, 2007-2011 (%)	New Employment Permits Issued, 2011 (Number)	SLMRU Recruitment Agency Survey	Replacement Rate (%)	Shortage Indicator	Comment
Other technicians	4.8	11.4%	13.6%	Above Average	16.2%	10.2%	79.5%	-1.8%	6		2.6%	Skill shortage	Niche areas
IT operations technicians	8.0	31.4%	11.1%	Below Average	0.8%	6.6%	67.3%	3.7%	65		2.6%	Skill shortage	Multilingual, niche areas
IT user support technicians	3.3	22.6%	9.6%		2.8%	26.3%	76.9%	2.0%	15		2.6%	Skill shortage	Multilingual, niche areas
Health associate professionals	9.6	65.8%	23.3%	Below Average	10.4%	9.2%	70.1%	6.7%	33		2.6%	No shortage	
Youth & community workers	6.8	76.9%	49.0%	Below Average	16.5%	0.0%	76.3%	5.8%	1		2.6%	No shortage	
Welfare & housing associate professionals	4.8	61.9%	28.8%	Below Average	33.0%	6.8%	79.6%	6.8%	2		2.6%	No shortage	
Army personnel	8.2	9.8%	0.0%	Below Average	2.3%	0.0%	23.9%	4.1%	0		1.2%	No shortage	
Gardaí	15.3	24.2%	0.9%	Below Average	4.2%	0.8%	84.1%	6.1%	0		1.2%	No shortage	
Protective service occupations	7.9	15.2%	12.7%	Below Average	8.7%	4.4%	26.7%	4.3%	1		1.2%	No shortage	
Artistic, literary & media occupations	14.4	33.8%	31.6%	Below Average	10.5%	9.0%	64.5%	0.0%	15		2.8%	No shortage	
Design occupations	5.7	55.1%	23.6%	Below Average	11.3%	13.9%	72.6%	-7.0%	5		2.6%	No shortage	
Sports & fitness occupations	6.9	44.7%	46.6%	Below Average	7.6%	18.1%	67.1%	5.9%	39		2.6%	No shortage	

Occupation	Number Employed (2011 Annual Average - '000s)	% Female	% Part-Time	Unemployment Rate (%)	% Aged 55 years and over	% Non-Irish Nationals	% Third Level Graduates	Average Annual Employment Growth Rate, 2007-2011 (%)	New Employment Permits Issued, 2011 (Number)	SLMRU Recruitment Agency Survey	Replacement Rate (%)	Shortage Indicator	Comment
Aircraft pilots, ship officers, air traffic controllers	2.3	10.2%	2.9%		4.0%	8.4%	80.1%	4.8%	0		2.6%	No shortage	
Brokers & insurance underwriters	5.2	36.9%	3.6%	Below Average	9.0%	3.1%	70.5%	3.7%	6	X	2.6%	No shortage	
Finance & investment analysts	6.6	37.0%	4.8%	Below Average	9.7%	11.2%	88.5%	1.7%	28		2.6%	Skill shortage	
Financial & accounting technicians	4.1	67.2%	25.3%	Below Average	5.5%	0.0%	77.3%	1.2%	10		2.6%	Skill shortage	Multilingual
Financial accounts managers	7.1	50.9%	9.5%	Below Average	7.1%	12.7%	72.8%	10.4%	14		2.6%	Skill shortage	Multilingual
Other business associate professionals	5.3	48.5%	18.0%	Below Average	15.7%	13.0%	68.5%	2.3%	21		2.6%	No shortage	
Buyers & procurement officers	3.4	48.5%	0.0%		2.6%	10.3%	73.5%	0.7%	3		2.6%	No shortage	
Business sales executives	20.0	28.5%	10.4%	Below Average	10.7%	6.3%	50.4%	-5.4%	35		2.6%	Skill shortage	Multilingual, niche areas
Marketing associate professionals	4.5	54.0%	15.6%	Below Average	9.9%	9.3%	87.9%	-3.5%	54		2.6%	Skill shortage	Multilingual, niche areas
Sales accounts & bus. dev. managers	17.4	33.2%	2.5%	Below Average	9.9%	7.6%	72.4%	6.6%	53		2.6%	Skill shortage	Multilingual, niche areas
Estate agents etc.; conference & exhibition managers	4.7	35.4%	15.6%	Below Average	24.3%	2.2%	66.2%	-0.5%	1		2.6%	No shortage	
Environmental & other public services associate professionals	3.6	50.3%	7.7%		15.9%	0.0%	47.5%	-6.6%	0		2.6%	No shortage	

Occupation	Number Employed (2011 Annual Average - '000s)	% Female	% Part-Time	Unemployment Rate (%)	% Aged 55 years and over	% Non-Irish Nationals	% Third Level Graduates	Average Annual Employment Growth Rate, 2007-2011 (%)	New Employment Permits Issued, 2011 (Number)	SLMRU Recruitment Agency Survey	Replacement Rate (%)	Shortage Indicator	Comment
Human resources & industrial relations officers	4.8	69.0%	12.6%	Below Average	4.3%	8.9%	81.4%	-6.1%	3		2.6%	No shortage	
Vocational & industrial trainers & instructors	7.9	56.8%	14.0%	Below Average	25.5%	4.9%	64.0%	-0.3%	6		2.6%	No shortage	
Regulations inspectors; health & safety officers	3.0	27.6%	9.7%		19.5%	2.8%	67.5%	-6.5%	2		2.6%	No shortage	
Government admin. occupations	43.2	76.9%	18.1%	Below Average	9.6%	1.1%	36.0%	-3.5%	1		3.5%	No shortage	
Financial admin. occupations	61.5	79.9%	27.7%	Below Average	13.6%	4.2%	46.0%	-0.9%	17	X	3.5%	Skill shortage	Multilingual, niche areas
Records & library clerks etc.	3.2	72.9%	30.9%		44.7%	0.0%	50.0%	-2.6%	0		3.5%	No shortage	
Stock control, transport & distribution admin. occupations	5.9	27.4%	11.7%	Below Average	2.9%	9.3%	40.5%	-2.0%	5		3.5%	No shortage	
Other administrators	52.5	82.3%	32.8%	Below Average	15.4%	8.6%	37.9%	-4.5%	18		3.5%	No shortage	
Office managers & supervisors admin. occupations	6.7	74.7%	22.2%	Below Average	25.3%	4.7%	46.0%	-3.0%	1		3.5%	No shortage	
P.A.s & other secretaries, etc.	33.9	92.9%	42.9%	Below Average	23.8%	4.9%	34.3%	-5.6%	3		3.5%	No shortage	
Receptionists	10.7	91.1%	52.5%	Below Average	19.5%	6.6%	20.4%	-7.2%	3		3.5%	No shortage	
Farmers	62.2	6.4%	12.9%	Below Average	48.9%	1.0%	9.0%	-8.3%	1		3.1%	No shortage	

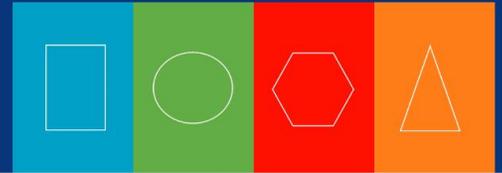
Occupation	Number Employed (2011 Annual Average - '000s)	% Female	% Part-Time	Unemployment Rate (%)	% Aged 55 years and over	% Non-Irish Nationals	% Third Level Graduates	Average Annual Employment Growth Rate, 2007-2011 (%)	New Employment Permits Issued, 2011 (Number)	SLMRU Recruitment Agency Survey	Replacement Rate (%)	Shortage Indicator	Comment
Horticulture, agriculture & fishing trades n.e.c.	13.0	7.8%	25.0%	Above Average	24.4%	10.9%	28.4%	-4.6%	2		3.1%	No shortage	
Metal forming, welding & related trades	7.2	2.3%	9.1%	Above Average	6.2%	15.5%	4.9%	-13.2%	2		2.7%	No shortage	
Metal machining, fitting & instrument making trades	21.1	3.1%	8.6%	Below Average	13.9%	10.5%	31.9%	-9.3%	6		2.1%	Skill shortage	Niche area (i.e. tool making)
Vehicle trades	18.1	1.8%	12.5%	Above Average	16.0%	16.8%	16.5%	-6.2%	4		2.1%	No shortage	
Electrical & electronic trades, etc.	38.3	5.0%	6.7%	Above Average	11.2%	6.8%	42.6%	-9.8%	8		2.1%	No shortage	
Bricklayers	3.3	0.0%	35.5%		11.9%	25.7%	7.5%	-32.6%	0		2.7%	No shortage	
Plumbers	9.8	0.0%	6.7%	Above Average	15.5%	4.8%	11.5%	-11.9%	0		2.7%	No shortage	
Carpenters & joiners	15.2	0.0%	21.7%	Above Average	10.4%	8.6%	6.1%	-23.0%	0		2.7%	No shortage	
Plasterers	3.2	0.0%	27.5%		8.8%	22.1%	9.5%	-31.4%	0		2.7%	No shortage	
Painters & decorators	5.6	3.9%	17.4%	Above Average	26.3%	14.4%	1.9%	-18.5%	2		2.7%	No shortage	
Other construction trades	19.9	1.0%	14.4%	Above Average	15.5%	12.1%	13.0%	-19.1%	3		2.7%	No shortage	
Printing trades	3.3	16.8%	8.6%		15.7%	16.4%	17.4%	-13.1%	1		2.7%	No shortage	

Occupation	Number Employed (2011 Annual Average - '000s)	% Female	% Part-Time	Unemployment Rate (%)	% Aged 55 years and over	% Non-Irish Nationals	% Third Level Graduates	Average Annual Employment Growth Rate, 2007-2011 (%)	New Employment Permits Issued, 2011 (Number)	SLMRU Recruitment Agency Survey	Replacement Rate (%)	Shortage Indicator	Comment
Butchers, fishmongers, etc.	8.1	4.7%	5.1%	Above Average	6.6%	43.2%	11.6%	1.0%	38	X	1.5%	No shortage	
Bakers & flour confectioners	2.5	31.7%	7.4%		18.3%	31.9%	17.9%	-3.0%	4		1.5%	No shortage	
Chefs & cooks	20.2	45.2%	25.5%	Above Average	10.0%	28.6%	37.0%	-5.3%	123		3.9%	No shortage	
Catering & bar managers	5.7	41.2%	11.4%	Below Average	18.6%	11.9%	36.1%	1.7%	6		3.9%	No shortage	
Other skilled trades	8.7	26.1%	20.3%	Above Average	18.7%	14.8%	30.1%	-10.1%	11		2.7%	No shortage	
Nursery nurses & assistants	4.9	100.0%	56.1%	Below Average	12.2%	10.2%	29.4%	3.9%	2		3.9%	No shortage	
Childminders, etc.	17.5	97.4%	47.3%	Below Average	7.8%	23.9%	32.6%	-0.4%	32		3.9%	No shortage	
Educational support assistants	12.7	96.8%	30.3%	Below Average	8.9%	2.1%	41.4%	-0.9%	1		3.9%	No shortage	
Animal carers & pest controllers	2.1	64.3%	27.3%		6.7%	6.7%	28.7%	-1.5%	17		2.6%	No shortage	
Caring personal services occupations	10.7	77.2%	27.7%	Below Average	27.1%	7.9%	23.0%	7.2%	211		2.6%	No shortage	
Care workers, home carers, etc.	50.0	86.5%	44.2%	Below Average	23.1%	11.0%	32.3%	0.9%	5	X	2.6%	No shortage	
Leisure & travel service occupations	8.3	64.5%	25.0%	Below Average	3.1%	11.7%	42.1%	-4.0%	8		3.9%	No shortage	

Occupation	Number Employed (2011 Annual Average - '000s)	% Female	% Part-Time	Unemployment Rate (%)	% Aged 55 years and over	% Non-Irish Nationals	% Third Level Graduates	Average Annual Employment Growth Rate, 2007-2011 (%)	New Employment Permits Issued, 2011 (Number)	SLMRU Recruitment Agency Survey	Replacement Rate (%)	Shortage Indicator	Comment
Hairdressers & beauticians, etc.	20.6	92.1%	46.1%	Average	3.1%	8.6%	25.0%	-0.2%	11		3.9%	No shortage	
Housekeepers & caretakers, etc.	13.7	52.1%	52.9%	Below Average	34.4%	25.8%	12.7%	-1.0%	20		3.9%	No shortage	
Sales assistants	122.0	68.4%	55.9%	Below Average	9.3%	14.0%	20.7%	-3.2%	47		3.9%	No shortage	
Sales related occupations	12.2	35.6%	22.7%	Below Average	23.5%	8.6%	38.8%	-2.5%	7		3.9%	No shortage	
Sales supervisors	3.6	47.1%	20.8%		9.6%	32.7%	15.7%	-1.7%	2		3.9%	No shortage	
Customer service occupations	16.0	62.2%	23.6%	Below Average	10.6%	19.4%	42.9%	0.2%	16		3.5%	No shortage	
Food, drink & tobacco process operatives	14.9	22.6%	10.9%	Above Average	9.4%	44.5%	16.6%	27.9%	11		1.5%	No shortage	
Chemical & related process operatives	7.5	33.7%	5.6%	Below Average	12.3%	3.6%	21.9%	7.2%	0		1.5%	No shortage	
Other process operatives	4.3	12.8%	4.1%	Above Average	9.9%	20.3%	20.9%	-0.6%	5		1.5%	No shortage	
Plant & machine operatives	6.6	8.8%	8.4%	Above Average	9.9%	19.4%	10.6%	-15.8%	3		1.5%	No shortage	
Assemblers	7.0	40.3%	1.4%	Above Average	4.1%	23.5%	24.2%	7.2%	1		1.5%	No shortage	
Routine operatives	21.1	48.7%	9.4%	Below Average	8.0%	22.4%	27.6%	1.6%	4		1.5%	No shortage	

Occupation	Number Employed (2011 Annual Average - '000s)	% Female	% Part-Time	Unemployment Rate (%)	% Aged 55 years and over	% Non-Irish Nationals	% Third Level Graduates	Average Annual Employment Growth Rate, 2007-2011 (%)	New Employment Permits Issued, 2011 (Number)	SLMRU Recruitment Agency Survey	Replacement Rate (%)	Shortage Indicator	Comment
Construction operatives	10.8	1.1%	20.0%	Above Average	21.1%	13.1%	7.1%	-6.7%	20		4.5%	No shortage	
Road transport operatives	60.5	2.7%	20.9%	Above Average	27.0%	14.9%	9.8%	-4.7%	15		-1.2%	No shortage	
Mobile machine drivers & operatives	11.3	1.3%	6.6%	Above Average	13.9%	7.6%	4.0%	-15.1%	4		1.5%	No shortage	
Other drivers & transport operatives	5.2	4.2%	4.6%	Below Average	15.7%	9.0%	13.6%	6.0%	0		1.5%	No shortage	
Elementary agricultural occupations	12.2	23.2%	29.2%	Above Average	13.2%	22.4%	13.7%	0.8%	32		4.5%	No shortage	
Elementary construction occupations	22.6	8.2%	20.5%	Above Average	16.4%	20.3%	6.8%	-28.1%	5		4.5%	No shortage	
Elementary process plant occupations	10.4	34.5%	14.6%	Average	10.1%	43.6%	14.7%	-18.9%	5		4.5%	No shortage	
Elementary administration occupations	12.7	17.6%	14.3%	Below Average	17.7%	3.2%	11.8%	2.9%	2		4.5%	No shortage	
Elementary cleaning occupations	38.8	72.2%	58.8%	Above Average	20.1%	41.0%	11.0%	-0.6%	87		3.9%	No shortage	
Elementary security occupations	14.0	12.0%	25.4%	Above Average	21.4%	20.3%	24.8%	-4.6%	17		1.2%	No shortage	
Elementary sales & storage occupations	23.2	18.7%	20.2%	Above Average	8.9%	23.4%	20.9%	-2.3%	9		4.5%	No shortage	
Kitchen & catering assistants	20.5	65.1%	47.9%	Above Average	14.6%	39.4%	17.2%	-3.7%	72		4.5%	No shortage	

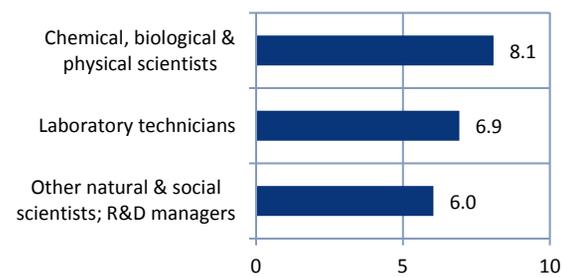
Occupation	Number Employed (2011 Annual Average - '000s)	% Female	% Part-Time	Unemployment Rate (%)	% Aged 55 years and over	% Non-Irish Nationals	% Third Level Graduates	Average Annual Employment Growth Rate, 2007-2011 (%)	New Employment Permits Issued, 2011 (Number)	SLMRU Recruitment Agency Survey	Replacement Rate (%)	Shortage Indicator	Comment
Waiters & waitresses	17.2	77.0%	70.1%	Above Average	7.0%	33.5%	27.5%	-8.8%	38		3.9%	No shortage	
Bar staff	17.9	32.0%	62.0%	Above Average	6.1%	9.9%	15.8%	-3.7%	5		3.9%	No shortage	
Other elementary occupations	4.9	19.2%	39.3%	Above Average	14.8%	14.5%	11.8%	4.6%	4		4.5%	No shortage	
Other/not stated	5.7	54.8%	19.5%	Above Average	8.8%	10.9%	50.4%	-1.1%	15		4.5%	No shortage	
Total	1,810	46.5%	23.5%	14.3%	15.3%	12.4%	45.0%	-3.9%	3,316				



8.1 Science Occupations

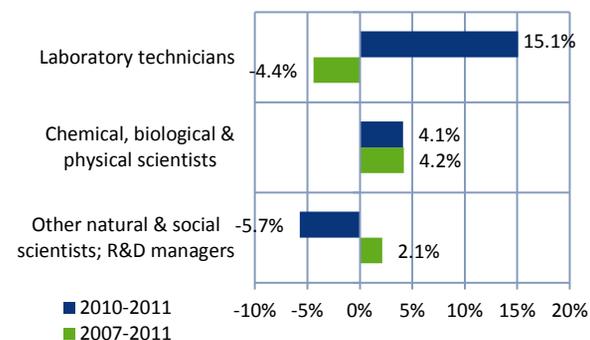
- There were approximately 21,000 persons employed in the selected science occupations, representing 1.6% of Ireland's workforce
- Approximately three quarters of employment was concentrated in three sectors: industry (mostly in the manufacture of basic pharmaceutical products and preparations, and machinery and equipment), professional, scientific and technical activities (particularly in the area of scientific research and development) and healthcare
- Just under 70% of overall employment was at professional level, while 30% was at technician level
- Overall employment in the selected science occupations grew very modestly between 2007 and 2011, at 0.4% on average annually; the 1,700 job gains was almost eliminated by the number of job losses over that period; employment of chemical, biological and physical scientists grew by 4.2% on average annually during that period, while a positive average annual growth rate of 2.1% was recorded for other natural and social scientists and R&D managers, the numbers employed in 2007 and 2011 were similar; in contrast, a negative employment growth rate of 4.4% was recorded for laboratory technicians
- Between 2010 and 2011, employment grew at a stronger pace, at 4.2%; almost 1,000 net additional jobs were created; most of the jobs were created for laboratory technicians
- Over four fifths of employment in both professional and technician level occupations was concentrated in the 25-54 age group
- Over 90% and just over two thirds of persons employed in professional and technician level occupations held third level qualifications respectively; science professionals were among professional occupations which had the highest level of educational attainment economy-wide
- Almost three fifths of the overall workforce of science occupations was female
- The unemployment rate for science professionals and technicians was 2.7% and 8.8% respectively – considerably below the national average

Figure 8.1.1 Numbers Employed (000s) in Selected Science Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

Figure 8.1.2 Average Annual Growth (%) in Selected Science Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

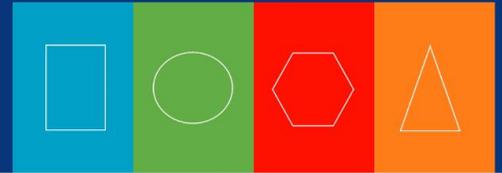


Table 8.1.1 Age Profile of Selected Science Occupations, 2011

	15-24	25-54	55+	Total
Chemical, biological & physical scientists	3%	85%	11%	100%
Laboratory technicians	7%	90%	3%	100%
Other natural & social scientists; R&D managers	5%	79%	16%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.1.2 Education Profile of Selected Science Occupations, 2011

	Lower Secondary or Less	Higher Secondary or FET	Third level	Total
Chemical, biological & physical scientists	0%	2%	98%	100%
Laboratory technicians	3%	29%	68%	100%
Other natural & social scientists; R&D managers	1%	5%	94%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

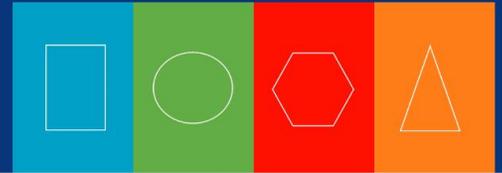
Shortage Indicators

Recent data points to shortages of biologists (including microbiologists) and chemists as well as research and development project managers for the bio-pharmaceutical sector. Chemists are proving difficult to source in the areas of product formulation, analytical development, and research and development in the area of biotechnology; almost 40 natural scientists were recruited from outside the EEA in 2011.

The demand for scientific, research and development skills is illustrated in recent job announcements (e.g. Eli Lilly, Allergan,

Abbott, Amgen, etc.) and the reported short-to-medium term IDA pipeline for the bio-pharma/pharma-chem and medical devices sectors.

The demand for science skills is expected to be driven by moves towards higher value added activities within the high technology manufacturing sectors, increased demand for healthcare and healthcare products, and the Government's on-going investments in science, technology and innovation. Science skills will also be important in the context of the green agenda.

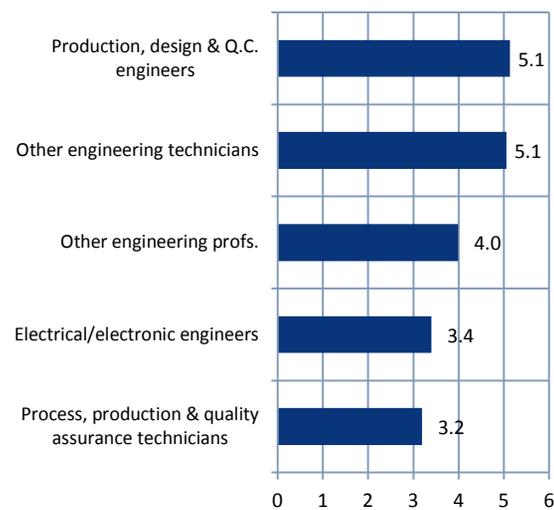


8.2 Engineering Occupations

- There were approximately 21,000 persons employed in the selected engineering occupations, representing 1.1% of Ireland's national workforce
- Just over one half of total employment in the selected occupations was concentrated in manufacturing (primarily in the manufacture of basic pharmaceutical products and preparations; machinery and equipment; computer, electronic and optical products)
- Approximately 60% of total employment was at professional level; the remainder was at technician level (i.e. associate professionals)
- Over the period 2007-2011, overall employment in the selected engineering occupations grew by 2.9% on average annually; approximately 2,300 net jobs were created in that period; the largest number of jobs was created for professional occupations: production, design and quality control (Q.C.) engineers (1,700) and electrical/electronic engineers (1,000); in contrast, the largest number of job losses was recorded for process, production and quality assurance technicians
- With 8% aged 55 and over, the share of older workers in the overall workforce of the selected engineering occupations was below the national average of 15.3%
- Approximately 90% of persons employed in professional occupations were third level graduates; the share was 65% for those employed in associate professional occupations
- The workforce of each of the engineering occupations was predominantly male

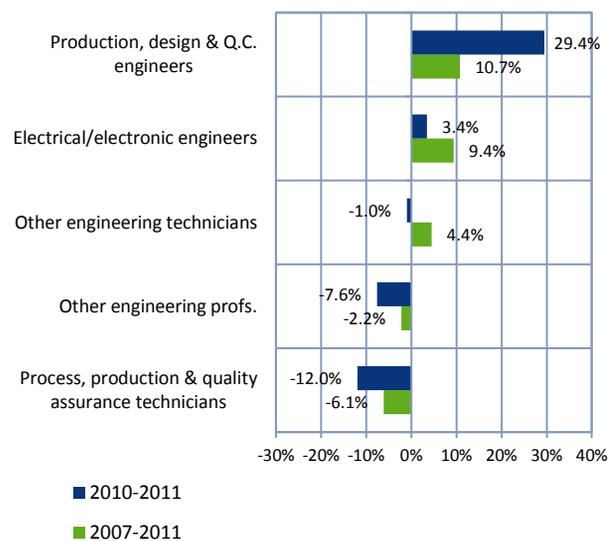
- The majority of persons employed in engineering occupations worked full-time
- At 7%, the unemployment rate for all engineering occupations was half the national average rate

Figure 8.2.1 Numbers Employed (000s) in Selected Engineering Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

Figure 8.1.2 Average Annual Growth (%) in Selected Engineering Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

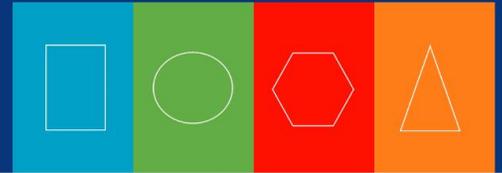


Table 8.2.1 Age Profile of Selected Engineering Occupations, 2011

	15-24	25-54	55+	Total
Production, design & Q.C. engineers	4%	93%	4%	100%
Other engineering technicians	10%	80%	10%	100%
Other engineering profs.	4%	82%	14%	100%
Electrical/electronic engineers	0%	89%	11%	100%
Process, production & quality assurance technicians	7%	89%	4%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.2.2 Education Profile of Selected Engineering Occupations, 2011

	Lower secondary or less	Higher secondary or FET	Third level	Total
Production, design & Q.C. engineers	1%	5%	94%	100%
Other engineering technicians	3%	45%	52%	100%
Other engineering profs.	0%	11%	89%	100%
Electrical/electronic engineers	2%	12%	86%	100%
Process, production & quality assurance technicians	1%	16%	82%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

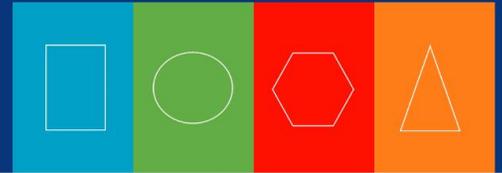
Shortage Indicators

Shortages have been identified for a number of engineering occupations. They have been cited as difficult to fill and sourced from abroad (over 100 employment permits were

issued to non-EEA workers in 2011). Specific engineering skills in demand include:

- chemical and product formulation engineers and analysts, especially those with an API background
- production, process and process safety engineers
- quality control engineers (for the food and high-tech industries)
- regulation engineers
- industrial hygiene engineers
- validation engineers (telecommunications sector)
- mechanical engineers (process automation, system control engineers (including Six Sigma specialists) and design engineers)
- electrical engineers with substantial experience in power generation, transmission and distribution (wind energy, high tension power, sub-station power engineers)
- instrumentation and control technicians in manufacturing (machinery, equipment and medical device sub-sectors).

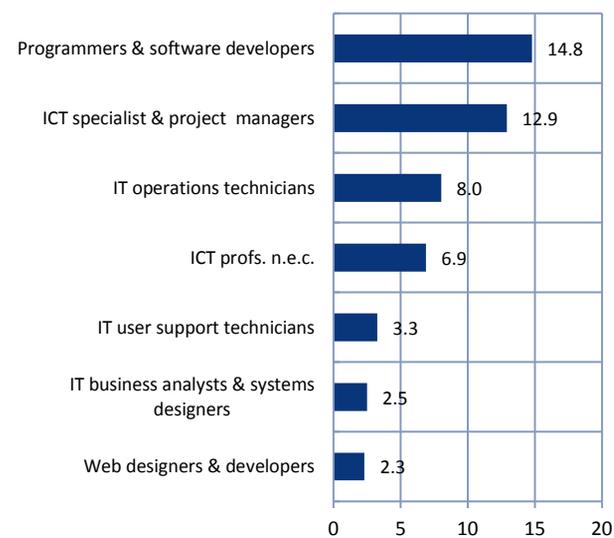
The demand for engineering skills is illustrated in recent job announcements which span the following areas: electronics - particularly in semi-conductor manufacturing (e.g. ZMDI, M/A-Com); medical devices (e.g. Cook Medical), pharmaceuticals (e.g. Mylan, Abbott, Amgen), and energy (e.g. Cylon Active Energy, IMERC, Ocean Energy and West Cork Renewable Energy Centre).



8.3 IT Occupations

- There were approximately 51,000 persons employed in the selected IT occupations, representing 2.8% of Ireland's workforce
- Just under 50% of employment was concentrated in the ICT sector (predominantly in computer programming, consultancy and related activities) while a further 17% was in industry (mostly in the manufacture of computer, electronic and optical products)
- Just over three quarters of employment was at professional level while over one fifth was at technician level
- Employment in the selected IT occupations grew by 4.2% on average annually over the period 2007-2011 – one of the few occupational groups in the national workforce that recorded positive employment growth during that period; the increase in employment translated into a net 7,600 additional jobs; most of the job creation was for programmers and software developers and ICT specialist and project managers during that period – the occupations which recorded the fastest pace of employment growth among the selected occupations – at 7.5% and 4.5% on average annually
- Between 2010 and 2011, employment expanded by 5.4% – resulting in a net 2,600 additional jobs; the largest number of jobs was created for programmers and software developers
- Over four fifths of the workforce of each occupation was concentrated in the 25-54 age group; the workforce of IT user support technicians and web designers and developers was the youngest, with approximately 10% of persons in both workforces aged 15-24
- The overall workforce of IT professionals was highly skilled – over four fifths held third level qualifications; at technician level, 70% of the overall workforce held third level qualifications
- Just over 70% of the overall workforce of IT occupations was male
- At four fifths and over, the majority of persons in the workforce of each IT occupation worked full-time
- At 5.5%, the unemployment rate for IT occupations was well below the national average of 14.3% in q4 2011
- Just over one quarter of the workforce of IT user support technicians was composed of non-Irish nationals; the share was approximately one fifth for the workforce of both programmers and software developers; and IT business analysts and systems designers

Figure 8.3.1 Numbers Employed (000s) in Selected IT Professional Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

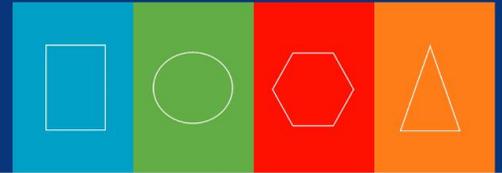
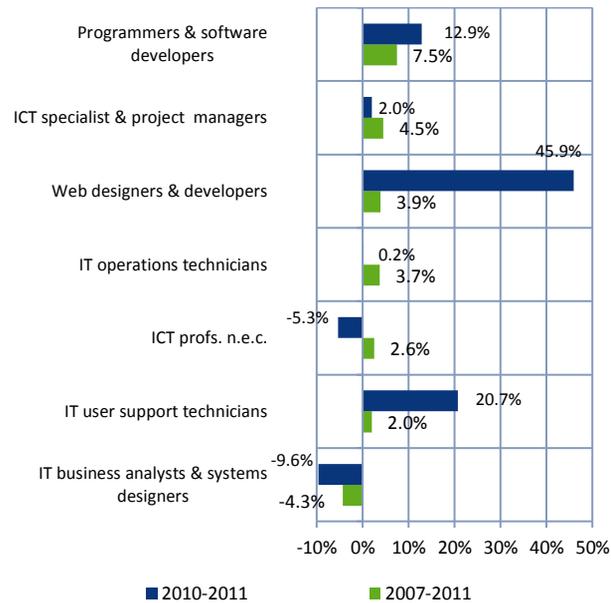


Figure 8.3.2 Average Annual Growth (%) in Selected IT Professional Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.3.1 Age Profile of Selected IT Professional Occupations, 2011

	15-24	25-54	55+	Total
Programmers & software developers	4%	93%	3%	100%
ICT specialist & project managers	1%	94%	5%	100%
IT operations technicians	3%	96%	1%	100%
ICT profs. n.e.c.	0%	99%	1%	100%
IT user support technicians	9%	88%	3%	100%
IT business analysts & systems designers	0%	100%	0%	100%
Web designers & developers	10%	90%	0%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.3.2 Education Profile of Selected IT Professional Occupations, 2011

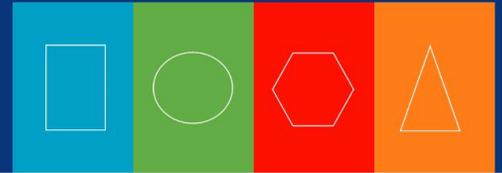
	Lower secondary or less	Higher secondary or FET	Third level	Total
Programmers & software developers	0%	6%	93%	100%
ICT specialist & project managers	4%	15%	81%	100%
IT operations technicians	3%	29%	67%	100%
ICT profs. n.e.c.	1%	11%	88%	100%
IT user support technicians	2%	21%	77%	100%
IT business analysts & systems designers	0%	9%	91%	100%
Web designers & developers	0%	28%	72%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Shortage Indicators

Despite the recession, shortages continue to arise for ICT skills. One third of all mentions for difficult to fill posts were in the area of ICT and almost 900 new employment permits were issued to non-EEA IT workers. ICT skills difficult to source include:

- Computer software engineers: designers and developers with specific skills sets such:
 - Sophisticated database architecture, maintenance and operations (e.g. SQL, Transact-SQL, Oracle)
 - Java-related applications (including .Net, C#, C++, Summit, UX/UI)
 - Open source applications (e.g. Linux, Flash/Flex, Ruby on Rails)
 - Online applications (e.g. PHP, CSS, HTML, Interactive visual, MS Sharepoint)
 - Mobile app development (also with HTML 5, Objective C, J2ME) for iphone and android platforms



- Cloud computing
- Linux/Unix for gaming technologies
- IT security experts: Internet security and network security models and solutions for the financial sector
- IT online support, technical user support, IT testing and troubleshooting.

While some experience was desirable, the demand was particularly strong for those with expertise in more than one of the above areas (e.g. expertise in both Java and in the migration of CSM/CRM⁸⁹ applications to web based or cloud computing architecture and software as a service (SaaS) applications), indicating that the skills mix was more sought after than the length of experience.

The demand for ICT skills is expected to remain strong based on the recent announcements of job creation by both multinational and indigenous companies. New job creation was announced by companies in a diverse range of areas within ICT such as:

- Cloud computing - spanning various areas including gaming, healthcare, supply chain management (SAP, Big Fish Games, iMosphere, iTrack Global, SourceDogg.com, Workday)
- Network security (e.g. Total Defence, Sysnet Global Solutions)
- Localisation and testing (e.g. Culture Translate)
- Telecommunications (e.g. Huawei)
- Research & Development (e.g. Hewlett Packard, Cisco - virtualisation)

The largest number of new job creation announcements by the IDA in 2012 was in the

⁸⁹ Customer service management/customer relationship management.

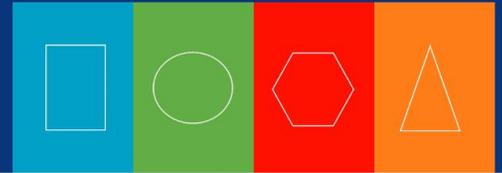
area of ICT. The number of new jobs expected to be created in the short-medium term will be for various positions at managerial, professional and technical levels. Over one third of the overall number of new jobs announced will be for software engineers, specialising in software development, web development and software verification.

In order to ensure a sustainable domestic supply of ICT skills and to support further expansion of the ICT sector, the Government launched the ICT Action Plan: Meeting the high-level skills needs of enterprise in Ireland⁹⁰ earlier this year, with the aim of doubling the annual output of ICT graduates to 2,000 by 2018. In the short-term, a number of places on level 8 conversion programmes (one- year courses for graduates) in ICT are provided by higher education institutions in areas such as core computing and programming, web technologies, software development and multimedia programming.⁹¹ Furthermore, under the Springboard initiative,⁹² there are a number of new places in ICT higher education programmes for the training of unemployed persons in this area. The first phase of this initiative provides for 1,400 places on ICT programmes.

⁹⁰ DES, 2012; (URL:http://www.education.ie/servlet/blobServlet/pub_higher_ed_ict_action_plan_2012.pdf).

⁹¹ The main target group for these conversion programmes are graduates with qualifications and skills in other cognate disciplines and a total of 786 full-time places were provided earlier this year.

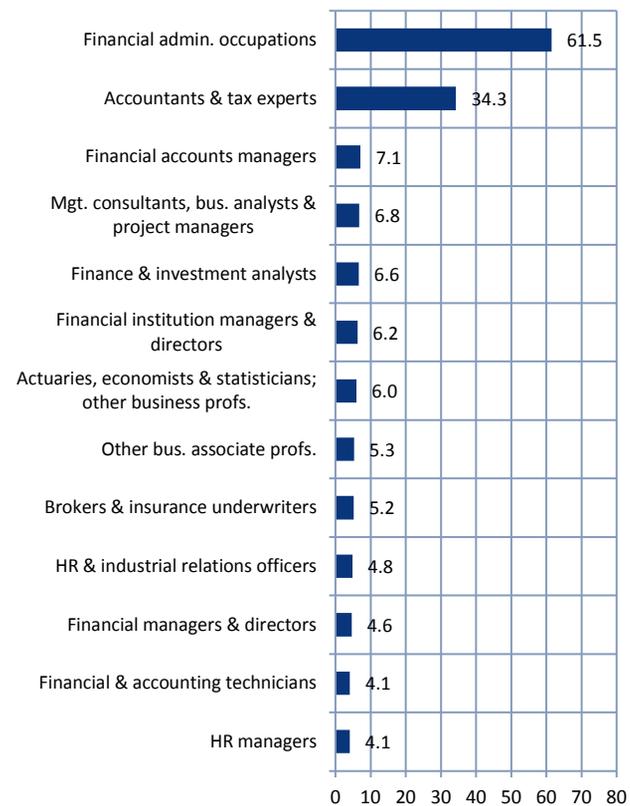
⁹² The Springboard programme has been developed in close collaboration with enterprise and the EGFSN. It provides almost 6,000 new places in higher education programmes for unemployed people in areas such as ICT, international financial services and engineering skills relevant for the medical devices industry, the green economy, pharmaceuticals, food and beverages; some specific programmes include sets of skills that are applicable across-enterprises & sectors such as digital marketing, Six Sigma, lean and quality systems, international selling, languages, business start-up and generic entrepreneurship skills. Source: <http://www.heai.ie/springboard>



8.4 Business and Financial Occupations

- There were approximately 157,000 persons employed in the selected business and financial occupations, representing just over 6% of Ireland's workforce
- Approximately 44% of total employment in these occupations was in financial, insurance and real estate activities; an additional 17% was in professional, scientific and technical activities (mostly in legal and accounting services)
- Almost 40% of total employment was in financial administrative occupations (primarily bank and post office clerks), while 30% was in professional occupations (primarily accountants and tax experts), while just over 20% was in associate professional occupations and the remainder was in managerial occupations
- While overall employment in business and financial occupations grew very modestly over the period 2007-2011 – at 0.4% on average annually (a net 2,500 additional jobs), employment in some occupations grew strongly over that period – financial accounts managers; HR managers; and management consultants, business analysts and business/finance project managers grew by between 8% and 10% on average annually; the largest number of jobs was created for these occupations
- Over the period 2010-2011, however, overall employment in the selected occupations contracted by 6%, resulting in 10,300 net job losses; most of the job losses were for accountants and tax experts and financial administrative occupations (mostly for bank and post office clerks)
- Over two fifths of the overall workforce of business and financial occupations was aged 25-54
- Over 90% of the overall workforce of professionals held third level qualifications, while the share was approximately 75% for both the overall workforce of associate professionals and managerial occupations; in contrast, 44% of the overall workforce of administrative occupations held third level qualifications
- The overall workforce of both HR managers and financial administrative occupations was predominantly female

Figure 8.4.1 Numbers Employed (000s) in Selected Business and Financial Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

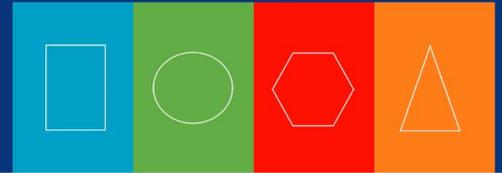
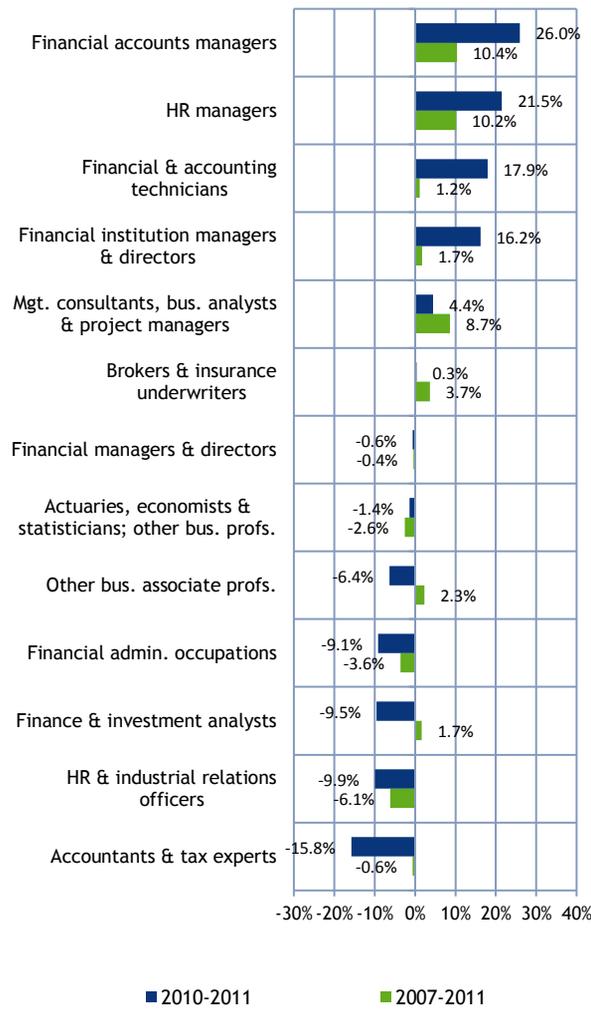


Figure 8.4.2 Average Annual Growth (%) in Selected Business and Financial Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.4.1 Age Profile of Selected Business and Financial Occupations, 2011

	15-24	25-54	55+	Total
Financial admin. occupations	5%	82%	14%	100%
Accountants & experts	6%	85%	8%	100%
Financial accounts managers	4%	89%	7%	100%
Mgt. consultants, bus. analysts & project managers	3%	81%	15%	100%
Finance & investment analysts	5%	86%	10%	100%
Financial institution managers & directors	3%	86%	11%	100%
Actuaries, economists & statisticians; other bus. profs.	3%	87%	9%	100%
Other bus. associate profs.	3%	81%	16%	100%
Brokers & insurance underwriters	1%	90%	9%	100%
HR & industrial relations officers				
Financial managers & directors	0%	87%	13%	100%
Financial accounting technicians	0%	94%	6%	100%
HR managers	0%	91%	9%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

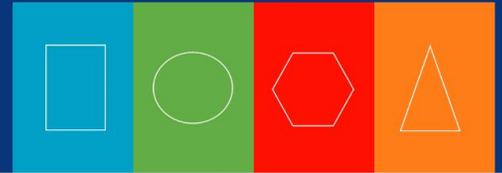


Table 8.4.2 Education Profile of Selected Business and Financial Occupations, 2011

	Lower secondary or less	Higher secondary or FET	Third level	Total
Financial admin. occupations	7%	47%	46%	100%
Accountants & tax experts	0%	4%	96%	100%
Financial accounts managers	1%	26%	73%	100%
Mgt. consultants, bus. analysts & project mgrs.	1%	9%	90%	100%
Finance & investment analysts	2%	10%	88%	100%
Financial institution managers & directors	1%	29%	69%	100%
Actuaries, economists & statisticians; other bus. profs.	3%	5%	91%	100%
Other bus. associate profs.	4%	28%	68%	100%
Brokers & insurance underwriters	3%	26%	71%	100%
HR & industrial relations officers				
Financial managers & directors	0%	22%	78%	100%
Financial accounting technicians	4%	19%	77%	100%
HR managers	0%	21%	79%	100%

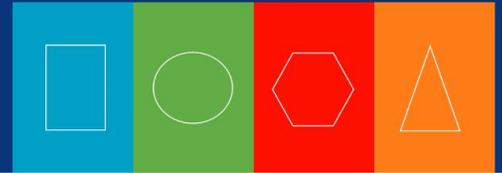
Source: Analysis by FÁS (SLMRU) based on CSO data

Shortage Indicators

Despite the announced job losses (e.g. Ulster Bank, TSB, EBS, AIB, etc.), some shortages of financial skills continue to exist, with over 300 employment permits issued for various financial and business experts in 2011. Skills difficult to source include:

- professionals in credit and risk management (e.g. risk analysts, credit specialists, actuaries)
- compliance experts (financial services regulation and compliance with Basel Accords, especially BASEL II and III)
- accountants with experience in corporate solvency and financial restructuring
- specialists in insurance business (underwriting and claims handling)
- business professionals and associate professionals with sophisticated business skills mixes (e.g. IT know-how and communication systems expertise in applications such as SAP, ORACLE and other Enterprise Resource Planning (ERP) systems)
- financial managers (e.g. client relationship managers in investment banking).

The demand for high level financial skills, particularly in the area of risk and compliance, is expected to be driven by the continued restructuring and reform of the banking sector, with some expansion also expected in international financial services (as evidenced in the IDA job announcements for 2011).



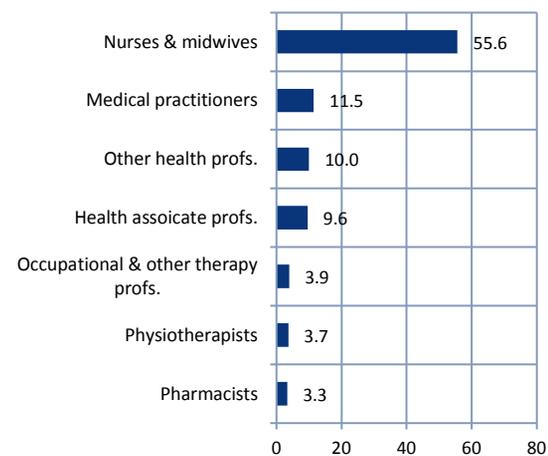
8.5 Healthcare Occupations

- There were approximately 98,000 persons employed in healthcare occupations, representing 5.4% of the national workforce
- Approximately 86,000 persons or almost 90% of employment was at professional level (primarily in nursing and midwifery)
- Nurses and midwives had the third largest workforce in the economy as a whole, after sales and retail assistants and farmers
- Employment increased by 1.6% on average annually over the period 2007-2011 (a net 6,100 additional jobs); employment of physiotherapists, health associate professionals and medical practitioners grew at average annual rates well above the national average during that period; the largest absolute increases in employment were recorded for these occupations; in contrast, employment of pharmacists and nurses and midwives remained relatively static
- However, almost 60% of the net job creation experienced during the period 2007-2011 was eliminated by the net 3,600 job losses recorded between 2010 and 2011; in absolute terms, the largest contraction in employment was for nurses and midwives
- Approximately four fifths of overall employment in healthcare occupations was in the 25-54 age cohort
- The majority of persons employed in healthcare occupations were third level graduates – approximately 90% and 70% of those employed in professional and associate professional occupations held third level qualifications respectively
- While almost 80% of the overall workforce of healthcare occupations was female,

males accounted for approximately 70% of the workforce of medical practitioners

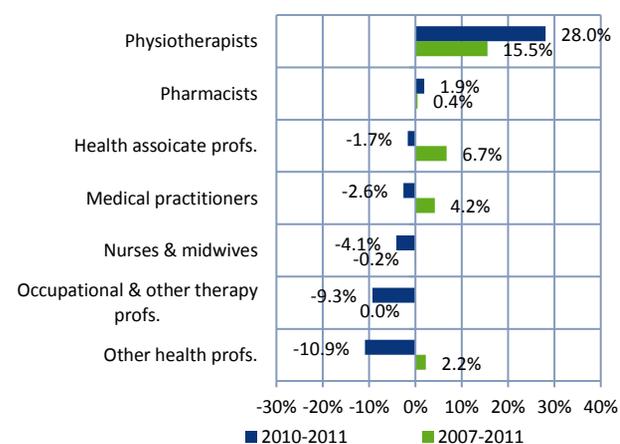
- Approximately 30% of the workforce of medical practitioners was composed of non-Irish nationals – one of the highest shares among all professional occupations in the national workforce

Figure 8.5.1 Numbers Employed (000s) in Selected Healthcare Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

Figure 8.5.2 Average Annual Growth (%) in Selected Healthcare Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

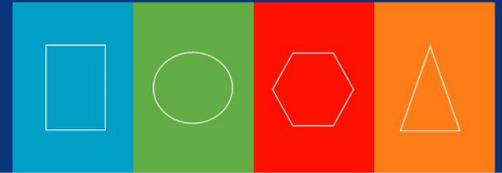


Table 8.5.1 Age Profile of Selected Healthcare Occupations, 2011

	15-24	25-54	55+	Total
Nurses & midwives	5%	78%	17%	100%
Medical practitioners	2%	84%	14%	100%
Other health profs.	1%	80%	20%	100%
Health associate profs.	5%	84%	10%	100%
Occ. & other therapy profs.	2%	84%	14%	100%
Physiotherapists	4%	81%	15%	100%
Pharmacists	6%	90%	5%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

and radiologists. There were just under 300 new employment permits issued to non-EEA doctors in 2011.⁹³

- **Specialist nurses:** clinical nursing managers, advanced nursing practitioners in intensive care, theatre, radiology and general nurses for elderly people care. There were 150 new employment permits issued to non-EEA nurses in 2011.
- **Radiographers:** Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) radiographers and sonographers.

Table 8.5.2 Education Profile of Selected Healthcare Occupations, 2011

	Lower secondary or less	Higher secondary or FET	Third level	Total
Nurses & midwives	0%	5%	95%	100%
Medical practitioners	0%	1%	99%	100%
Other health profs.	1%	2%	97%	100%
Health associate profs.	2%	28%	70%	100%
Occupational & other therapy profs.	0%	4%	96%	100%
Physiotherapists	0%	0%	100%	100%
Pharmacists	0%	5%	95%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

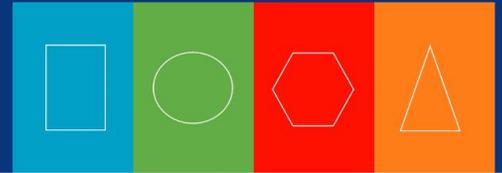
Shortage Indicators

Employment opportunities in the public healthcare sector remain limited.

Nonetheless, skills shortages persist for the following healthcare occupations:

- **Medical practitioners:** non-consultant hospital doctors (particularly for senior house officer (SHO) and registrar grades)

⁹³ However, it should be noted that since mid-June 2010 non-EEA non-consultant hospital doctors who are registered on the Medical Council's (of Ireland) General Division and who have a job offer for the post of SHO or registrar in the public health service and also non-EEA non-consultant hospital doctors who are registered on the Medical Council's (of Ireland) Trainee Specialist Division (excluding only those registered as interns) are exempt from the requirement to hold an employment permit. They are granted the immigration status which allows them to work in the State without the requirement to hold an employment permit – Stamp 1 – endorsements on their passports – by the Department of Justice and Equality.



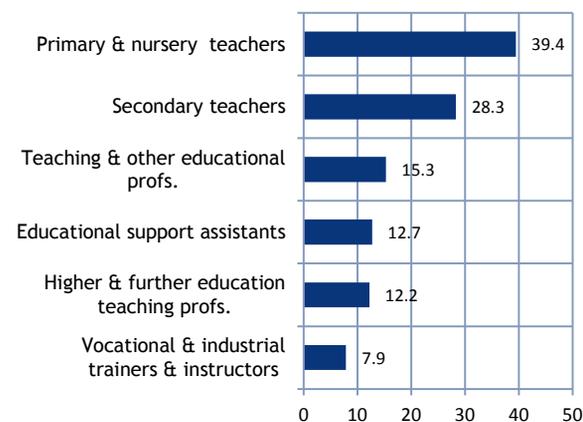
8.6 Education Occupations

- There were approximately 116,000 persons employed in the selected education occupations, representing 6.4% of the national workforce
- Just over 80% of overall employment was at professional level (mostly for primary/nursery and secondary teachers)
- Employment in education occupations increased by 1.3% on average annually between 2007 and 2011 (in contrast to a decline of 3.9% in the national average); with the exception of secondary teachers and teaching and other educational professionals, employment in all occupations contracted modestly between 2007 and 2011; employment of secondary teachers and other educational professionals grew by 3.8% and 6.9% on average annually during that period
- Between 2007 and 2011, a net 6,000 additional jobs were created; the largest number of jobs was created for secondary teachers
- At least four fifths of the workforce of all educational professionals held third level qualifications; at just over two fifths, the workforce of educational support assistants had the lowest share of third level graduates
- With just under 10% aged 15-24, the workforce of primary/nursery teachers was the youngest among the selected education occupations; in contrast, approximately one quarter of the overall workforce of both vocational and industrial trainers/instructors and educational support assistants was aged 55 and over
- Approximately 14% of the workforce of higher and further education teaching professionals was composed of non-Irish nationals – exceeding the national

average share of 10% for professional occupations

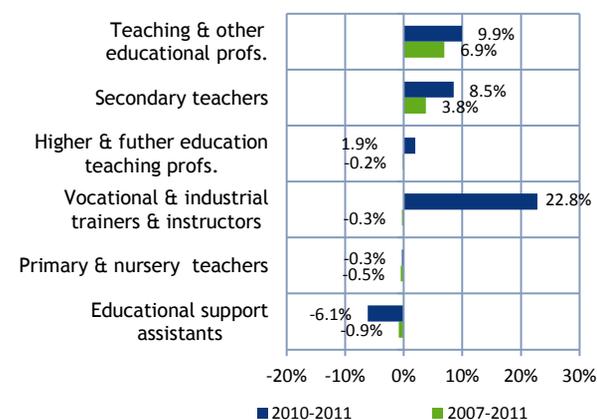
- Approximately three quarters of the overall workforce of education occupations was female; in contrast, 56% of the workforce of higher and further education teaching professionals was male

Figure 8.6.1 Numbers Employed (000s) in Selected Education Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

Figure 8.6.2 Average Annual Growth (%) in Selected Education Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

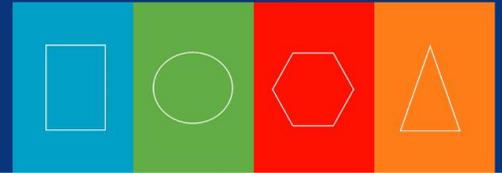


Table 8.6.1 Age Profile of Selected Education Occupations, 2011

	15-24	25-54	55+	Total
Primary & nursery teachers	9%	83%	8%	100%
Secondary teachers	2%	82%	15%	100%
Teaching & other educational profs.	4%	71%	25%	100%
Ed. support assistants	3%	88%	9%	100%
Higher & further education teaching profs.	0%	78%	22%	100%
Vocational & industrial trainers & instructors	4%	70%	26%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

education sector remain limited due to the moratorium on employment in the public sector.

The demand for teaching skills is expected to be driven by

- demographic changes (e.g. an increase in the number of school-going children)
- the requirements to improve numeracy (e.g. the need for qualified maths teachers, particularly at second level)
- high levels of unemployment and the need to up-skill or re-skill large numbers of persons
- a sustained high number of entrants to third level education.

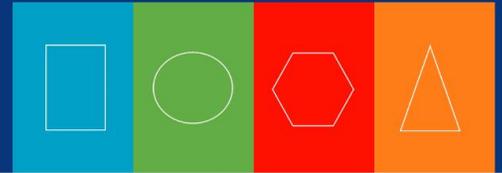
Table 8.6.2 Education Profile of Selected Education Occupations, 2011

	Lower secondary or less	Higher secondary or FET	Third level	Total
Primary & nursery teachers	0%	5%	95%	100%
Secondary teachers	0%	1%	98%	100%
Teaching & other educational profs.	4%	11%	85%	100%
Ed. support assistants	10%	49%	41%	100%
Higher & further education teaching profs.	0%	2%	98%	100%
Vocational & industrial trainers & instructors	13%	23%	64%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Shortage Indicators

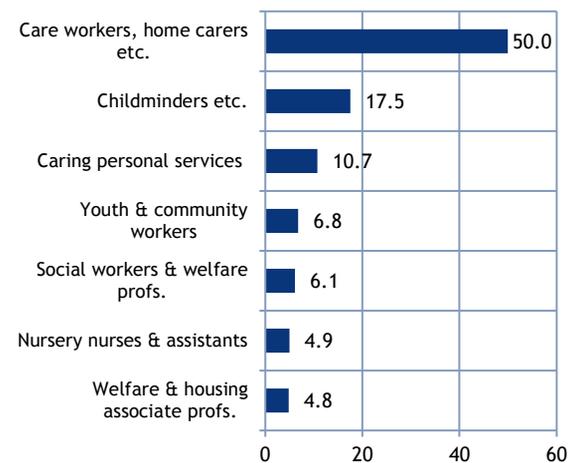
There is no evidence of shortages of education and training professionals. Employment opportunities in the public



8.7 Social and Care Occupations

- There were approximately 101,000 persons employed in the selected social and care occupations, accounting for 5.6% of total national employment
- At 50%, those employed as care workers, home carers and other carer workers accounted for the highest share of total employment in social and care occupations
- Employment in the selected occupations grew at an average annual rate of 1.8% over the period 2007-2011; overall employment in caring personal services occupations grew at the fastest pace during that period – at 7.2% on average annually – mainly due to an increase in the number of nursing auxiliaries and assistants
- Between 2007 and 2011, a net 6,900 additional jobs were created; the largest number of jobs was created for caring and personal services occupations (nursing auxiliaries and assistants) and care workers, home carers etc. – 2,600 and 1,700 respectively
- Overall employment in social and care occupations expanded at a modest rate of 0.7% on average annually between 2010 and 2011, resulting in less than 1,000 net additional jobs
- Almost one quarter of the workforce of childminders and related occupations was composed of non-Irish nationals – exceeding the national average of 12.4%
- The workforce of childminders and related occupations was the youngest among the selected occupations – just over one fifth was aged 15-24; in contrast, the workforce of caring and personal services occupations was the most mature – just over one quarter was aged 55 years and older
- Care workers, home carers etc. and caring personal workers (nursing auxiliaries and assistants) had attained the lowest level of education – between 25-30% of persons employed in these occupations held lower secondary or less qualifications; in contrast, the majority of all employed social workers and welfare professionals held third level qualifications
- The overall workforce of most social and care occupations was predominantly female; the workforce of nursery nurses and assistants was exclusively female
- The share of the workforce who worked part-time for most occupations exceeded the national average of 23%; at 56%, the highest share of those in part-time employment was for nursery nurses and assistants

Figure 8.7.1 Numbers Employed (000s) in Selected Social and Care Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

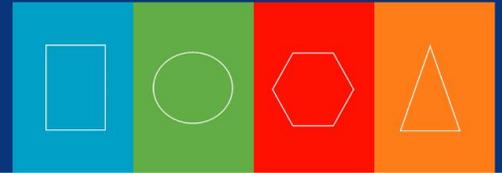
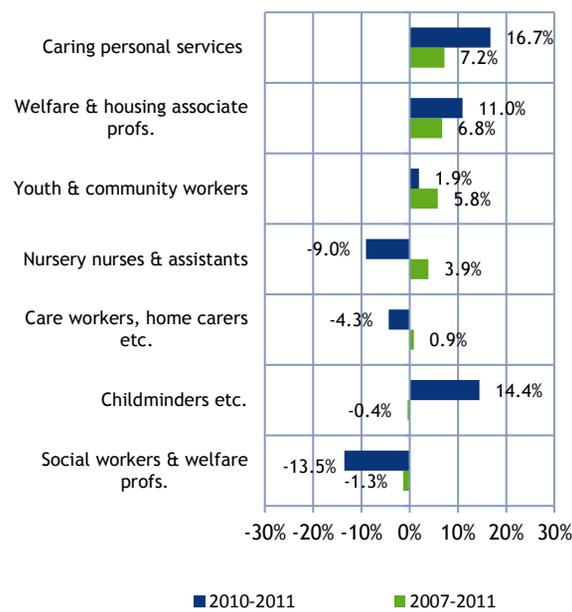


Figure 8.7.2 Average Annual Growth (%) in Selected Social and Care Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.7.1 Age Profile of Selected Social and Care Occupations, 2011

	15-24	25-54	55+	Total
Care workers, home carers etc.	6%	71%	23%	100%
Childminders etc.	22%	70%	8%	100%
Caring personal services	9%	64%	27%	100%
Youth & community workers	3%	81%	17%	100%
Social workers & welfare profs.	0%	76%	24%	100%
Nursery nurses & assistants	6%	82%	12%	100%
Welfare & housing associate profs.	0%	67%	33%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.7.2 Education Profile of Selected Social and Care Occupations, 2011

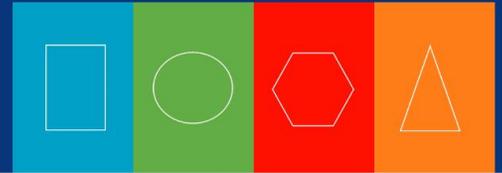
	Lower secondary or less	Higher secondary or FET	Third level	Total
Care workers, home carers etc.	30%	38%	32%	100%
Childminders etc.	15%	53%	33%	100%
Caring personal services	26%	51%	23%	100%
Youth & community workers	11%	13%	76%	100%
Social workers & welfare profs.	1%	8%	91%	100%
Nursery nurses & assistants	10%	61%	29%	100%
Welfare & housing associate profs.	8%	13%	80%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Shortage Indicators

There are currently no shortages of carers in Ireland. While there were over 200 new employment permits issued to non-EEA carers in 2011, the majority were issued to the spouses and dependants of existing employment permit holders.

The demand for carers is expected to continue to grow due to demographic changes including longer life expectancy and an ageing of the population. The demand for carers is also illustrated in recent job announcements (e.g. Comfort Keepers, Nursing Homes Ireland).

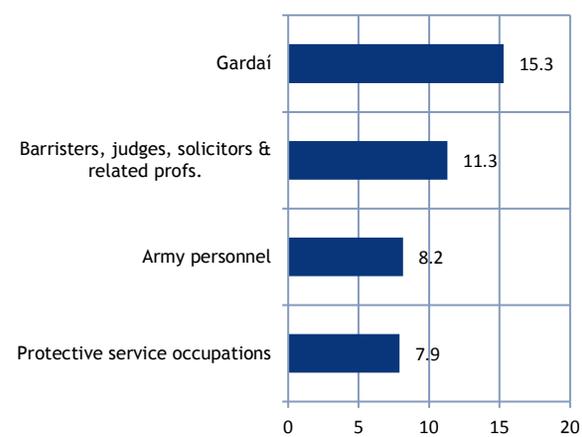


8.8 Legal and Security Occupations

- There were approximately 43,000 persons employed in legal and security occupations, representing 2.4% of total national employment
- Just over 70% of overall employment in legal and security occupations was in public administration and defence
- The majority of persons were employed as Gardaí – a total of 15,300 – accounting for over one third of overall employment in legal and security occupations
- Employment in legal and security occupations grew by 4.8% on average annually between 2007 and 2011, exceeding the national average of -3.9%; at 6.1%, the strongest average annual employment growth rate was recorded for Gardaí
- There were 7,300 net additional jobs created between 2007 and 2011; the most significant number of jobs was created for Gardaí, accounting for just over two fifths of this net job creation; however, between 2010 and 2011, absolute employment in most of the selected occupations remained relatively unchanged, with a small number of net job losses recorded across all occupations
- While almost all persons employed as legal professionals (i.e. barristers, judges, solicitors and related legal professionals) were third level graduates, approximately one quarter of those employed in both army personnel and protective service occupations (e.g. fire and prison service personnel) held below Leaving Certificate qualifications
- Almost one fifth of the overall workforce of barristers, judges, solicitors and related legal professionals was aged 55 and older

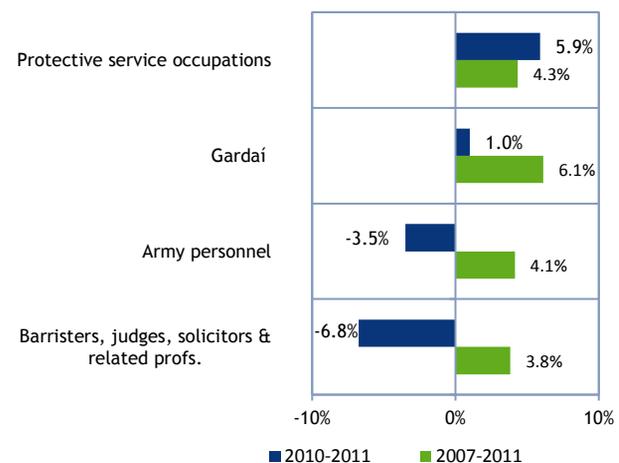
- The workforce of Gardaí, army personnel and protective service occupations was predominantly male and was almost exclusively composed of Irish nationals.

Figure 8.8.1 Numbers Employed (000s) in Selected Legal and Security Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

Figure 8.8.2 Average Annual Growth (%) in Selected Legal and Security Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

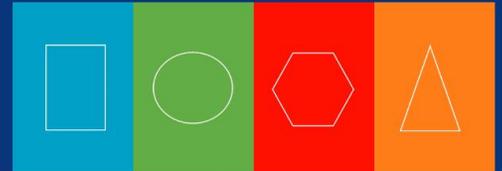


Table 8.8.1 Age Profile of Selected Legal and Security Occupations, 2011

	15-24	25-54	55+	Total
Gardaí	4%	92%	4%	100%
Barristers, judges, solicitors & related profs.	1%	81%	18%	100%
Army personnel	2%	96%	2%	100%
Protective service occupations	3%	88%	9%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

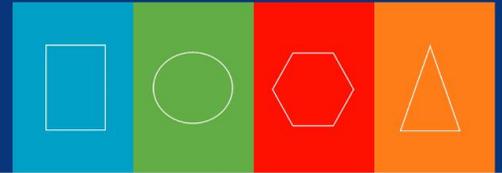
Table 8.8.2 Education Profile of Selected Legal and Security Occupations, 2011

	Lower secondary or less	Higher secondary or FET	Third level	Total
Gardaí	1%	15%	84%	100%
Barristers, judges, solicitors & related profs.	1%	1%	98%	100%
Army personnel	20%	56%	24%	100%
Protective service occupations	14%	59%	27%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Shortage Indicators

There were no shortages of legal and security skills identified.

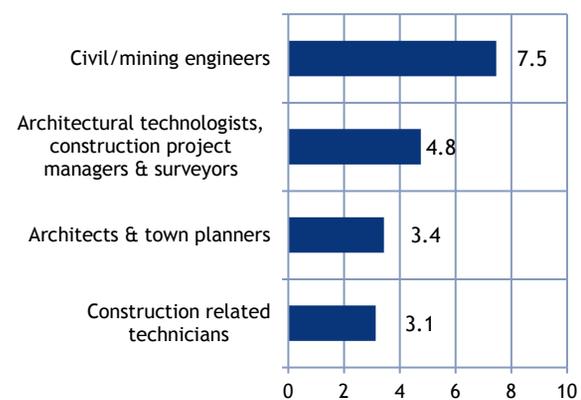


8.9 Construction Professional and Associate Professional Occupations

- There were approximately 19,000 persons employed in the selected construction professional and associate professional occupations, accounting for 1% of total national employment
- Over four fifths of overall employment was at professional level; the remainder was at associate professional/technician level
- Employment in the selected occupations was concentrated in professional scientific and technical activities (accounting for just over 60% – mostly in architectural and engineering activities); public administration and defence (15%), construction and industry (9% each)
- Overall employment in these occupations contracted by 9% on average annually over the period 2007-2011; there were approximately 8,700 net job losses – approximately 87% was at professional level – mostly for architects (3,200) and civil/mining engineers (2,800)
- Between 2010 and 2011, overall employment in the selected occupations contracted by 12.5%, translating into 2,700 net job losses; with the exception of construction related technicians for which employment remained relatively unchanged (in absolute terms) in that one-year period, employment of all occupations contracted
- The majority of persons employed in construction professional and associate professional occupations held third level qualifications
- Just over four fifths of overall employment in both construction professional and associate professional occupations was concentrated in the 25-54 age cohort

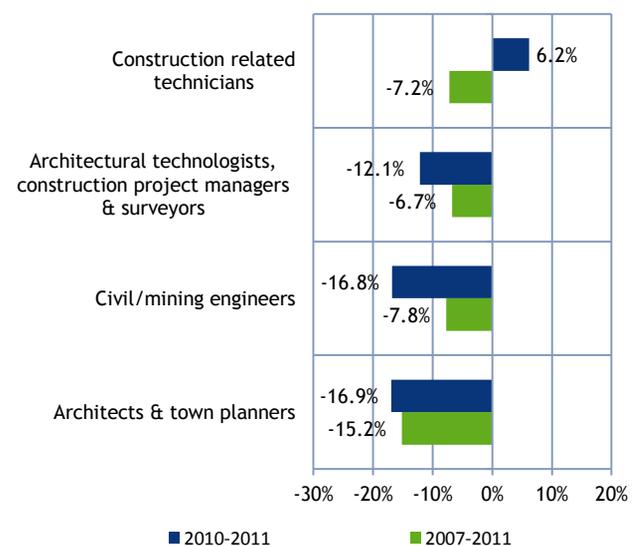
- At 10% and below, the share of non-Irish nationals represented in the employment stock of each occupation was below the national average of 12.4%
- With the exception of architects and town planners, the workforce of all occupations was predominantly male

Figure 8.9.1 Numbers Employed (000s) in Selected Construction Professional and Associate Professional Occupations, 2011



Source: FÁS (SLMRU) Analysis of CSO data

Figure 8.9.2 Average Annual Growth (%) in Selected Construction Professional and Associate Professional Occupations



Source: FÁS (SLMRU) Analysis of CSO data

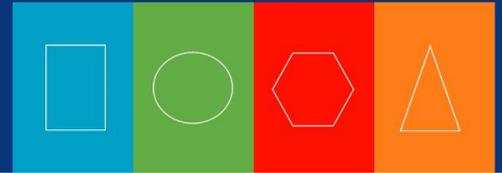


Table 8.9.1 Age Profile of Selected Construction Professional and Associate Professional Occupations, 2011

	15-24	25-54	55+	Total
Civil/mining engineers	0%	85%	15%	100%
Architectural technologists, construction project mgrs. & surveyors	0%	79%	21%	100%
Architects & town planners	0%	78%	22%	100%
Construction related technicians	2%	82%	16%	100%

Source: FÁS (SLMRU) Analysis of CSO data

Table 8.9.2 Education Profile of Selected Construction Professional and Associate Professional Occupations, 2011

	Lower secondary or less	Higher secondary or FET	Third level	Total
Civil/mining engineers	0%	2%	98%	100%
Architectural technologists, construction project mgrs. & surveyors	4%	3%	93%	100%
Architects & town planners	0%	3%	97%	100%
Construction related technicians	0%	14%	86%	100%

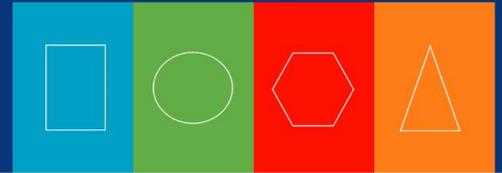
Source: FÁS (SLMRU) Analysis of CSO data

Shortage Indicators

There are currently no shortages of construction professionals and associate professionals. Job opportunities are likely to be confined to construction projects in social infrastructure (e.g. new schools), energy (e.g. repair and maintenance of traditional energy infrastructure, renewables infrastructure (e.g. wind, tide) etc. and commercial building required to facilitate the expansion of other sectors, primarily IT and pharmaceuticals (e.g. Amgen, Eli Lilly, Microsoft, HP, etc.).

Recent job announcements were in the renewable energy sector (Wind Energy Direct), manufacturing (Intel's new factory) and services (M7 motorway service facilities).

Some job creation is expected in the green sector in the areas of energy generation, transmission and efficiency, waste management and water supply and treatment.

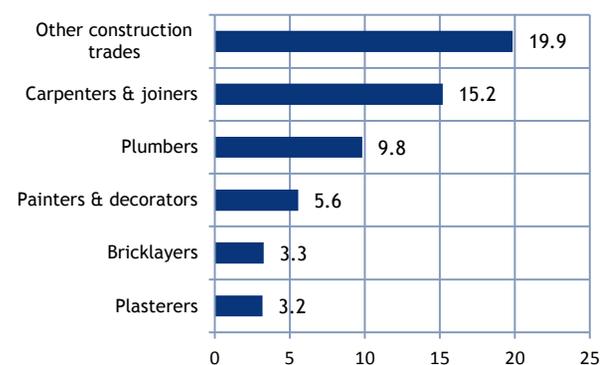


8.10 Construction Craft Occupations

- There were approximately 60,000 persons employed in construction craft occupations, accounting for just over 3% of Ireland's workforce
- Approximately 80% of overall employment in the selected occupations was concentrated in the construction sector
- Employment in construction craft occupations contracted by 21.4% on average annually between 2007 and 2011 – the strongest rate of decline among occupational groups in the national workforce – almost five and a half times above the national average rate; approximately 92,000 net job losses were recorded across all occupations
- Although there were approximately 11,300 net job losses experienced in construction craft occupations between 2010 and 2011, the rate and magnitude of the declines in employment across individual occupations has moderated considerably; with the exception of plumbers, employment in all occupations contracted; the largest decline in employment was recorded for other construction trades and carpenters and joiners, with 4,600 and almost 3,000 net job losses respectively
- The unemployment rate for construction craft workers was 41.1% in the final quarter of 2011 – considerably above the national rate of 14.3%; at rates just below 60%, bricklayers and plasterers had the highest unemployment rates among all occupations in the national labour force
- The workforce of plumbers was the youngest among the selected occupations, with 11% of persons aged 15-24; in contrast, it was the most mature for painters and decorators, with just over one quarter aged 55 and over

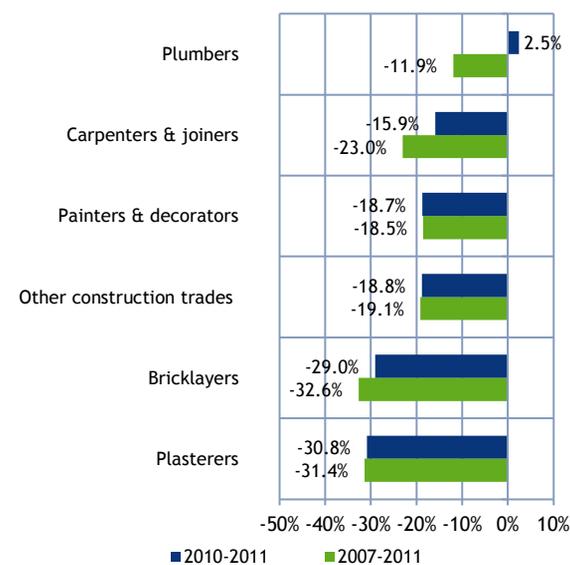
- At 70%, most persons employed in construction craft occupations held higher secondary/FET qualifications, while one quarter held below Leaving Certificate qualifications and only 10% held third level qualifications.

Figure 8.10.1 Numbers Employed (000s) in Selected Construction Craft Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

Figure 8.10.2 Average Annual Growth (%) in Selected Construction Craft Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

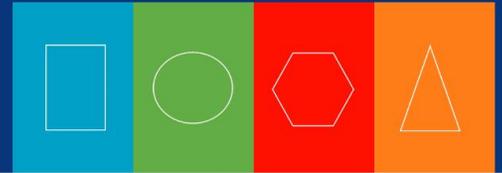


Table 8.10.1 Age Profile of Selected Construction Craft Occupations, 2011

	15-24	25-54	55+	Total
Other cons. trades	2%	82%	15%	100%
Carpenters, joiners	9%	80%	10%	100%
Plumbers	11%	73%	16%	100%
Painters, decorators	2%	72%	26%	100%
Bricklayers	1%	87%	12%	100%
Plasterers	8%	83%	9%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

infrastructure, renewables infrastructure (e.g. wind, tide) etc.)

- water supply and treatment infrastructure projects (e.g. water meter installation).

Table 8.10.2 Education Profile of Selected Construction Craft Occupations, 2011

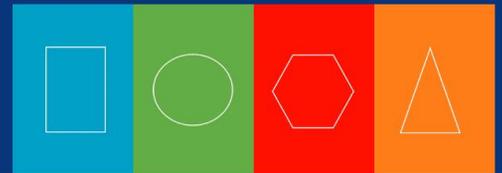
	Lower secondary or less	Higher secondary or FET	Third level	Total
Other cons. trades	33%	54%	13%	100%
Carpenters, joiners	14%	80%	6%	100%
Plumbers	16%	73%	12%	100%
Painters, decorators	31%	68%	2%	100%
Bricklayers	33%	59%	7%	100%
Plasterers	17%	73%	10%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Shortage Indicators

There are currently no shortages of construction crafts persons. Job opportunities are likely to be confined to:

- residential repair and maintenance
- construction projects in social infrastructure (e.g. new schools and existing schools' refurbishments)
- commercial building required to facilitate the expansion of other sectors, primarily IT and pharmaceuticals (e.g. Amgen, Allergan, Eli Lilly, Microsoft, HP, etc.)
- energy infrastructure projects (e.g. repair and maintenance of traditional energy



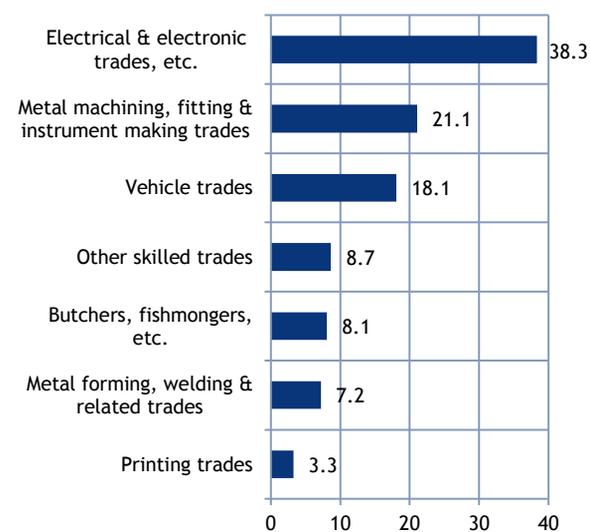
8.11 Other Craft Occupations

- There were approximately 105,000 persons employed in other craft occupations, representing almost 6% of the total national workforce
- Employment was concentrated in manufacturing and wholesale & retail
- Almost three quarters of total employment in other craft occupations was concentrated in three trades: electrical/electronic (37%); metal machining, fitting and instrument making (20%) and vehicle (17%)
- Employment in other craft occupations contracted at an average annual rate of 8.9% over the period 2007-2011 – declining at a pace just over twice as fast as the national average; approximately 47,000 net job losses were recorded during that four year period; the largest number was for electrical/electronic trades and metal machining, fitting and instrument making trades – 19,600 and 10,000 respectively – together these accounted for just over three fifths of the total number of net job losses
- There were 4,300 net job losses recorded in other craft occupations between 2010 and 2011; the largest number of job losses was recorded for electrical/electronic trades and printing trades
- The age profile of the overall workforce of other craft occupations was broadly similar to the national average
- Approximately 55% of persons employed in the selected occupations held higher secondary/FET qualifications, exceeding the national average of 39%; however, almost 30% of persons held third level qualifications – considerably below the national average of 45%; although the overall share of third level graduates was relatively low, the share varied across

occupations; at 90% with third level, computer repair and maintenance engineers (categorised within electrical & electronic crafts-workers) had one of the highest shares among skilled trades in the national workforce, in contrast, only 12% of the workforce of butchers, fishmongers and related trades were third level graduates

- Approximately 43% of the workforce of butchers, fishmongers and related trades was composed of non-Irish nationals – one of the highest shares among skilled trades in the national workforce; the share was also high for the workforce of computer repair and maintenance engineers, with one fifth non-Irish nationals
- The overall workforce of other skilled crafts-workers was predominantly male

Figure 8.11.1 Numbers Employed (000s) in Selected Other Craft Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

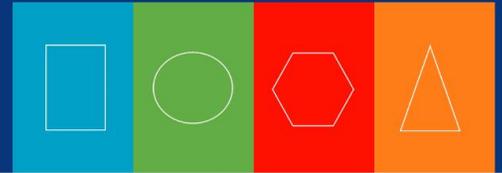
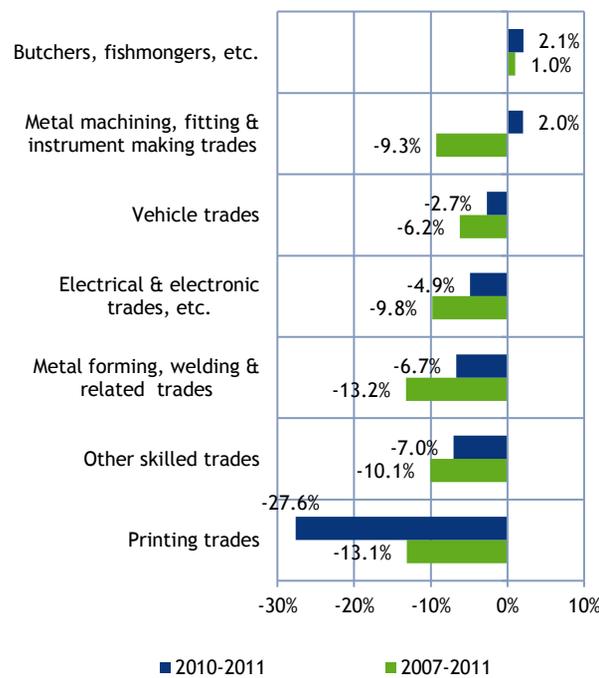


Figure 8.11.2 Average Annual Growth (%) in Selected Other Craft Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.11.1 Age Profile of Selected Other Craft Occupations, 2011

	15-24	25-54	55+	Total
Electrical & electrical trades, etc.	7%	82%	11%	100%
Metal machining, fitting & instrument making trades	5%	81%	14%	100%
Vehicle trades	11%	73%	16%	100%
Other skilled trades	4%	77%	19%	100%
Butchers, fishmongers, etc.	8%	85%	7%	100%
Metal forming, welding etc.	9%	85%	6%	100%
Printing trades	4%	80%	16%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.11.2 Education Profile of Selected Other Craft Occupations, 2011

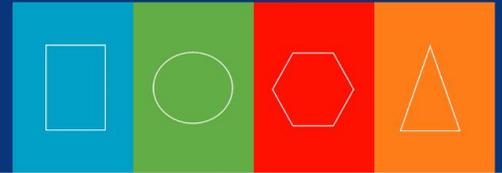
	Lower secondary or less	Higher secondary or FET	Third level	Total
Electrical & electronic trades, etc.	10%	48%	43%	100%
Metal machining, fitting & instrument making trades	20%	49%	32%	100%
Vehicle trades	18%	66%	16%	100%
Other skilled trades	23%	46%	30%	100%
Butchers, fishmongers, etc.	27%	62%	12%	100%
Metal forming, welding etc.	14%	81%	5%	100%
Printing trades	28%	55%	17%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

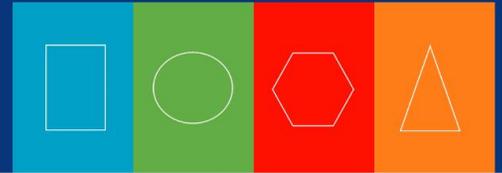
Shortage Indicators

During 2011, de-boners and trimmers continued to be sourced from outside the EEA, with 40 new employment permits issued to non-EEA nationals. However, the pilot training programme in butchery skills, developed by FÁS and the National Butchery Academy, should help address the shortage in the short-to-medium term.

There are currently no shortages of electricians. Most job opportunities are in residential repair and maintenance. However, the increase in the use of renewable energy and energy efficiency technologies (e.g. photovoltaic and solar panels, wind turbines, energy efficient lighting appliances) and the installation of electrical services associated with smart home technologies and electronic security systems are expected to positively impact on the demand for electricians.



Recently, some companies have reported difficulty in sourcing toolmakers. Apprentice intake levels in 2011 were almost 40% higher than in the previous year. The expansion in tool-making activities and the associated demand for tool-making skills is primarily influenced by the strong performance in some segments of high-tech manufacturing (e.g. medical devices).



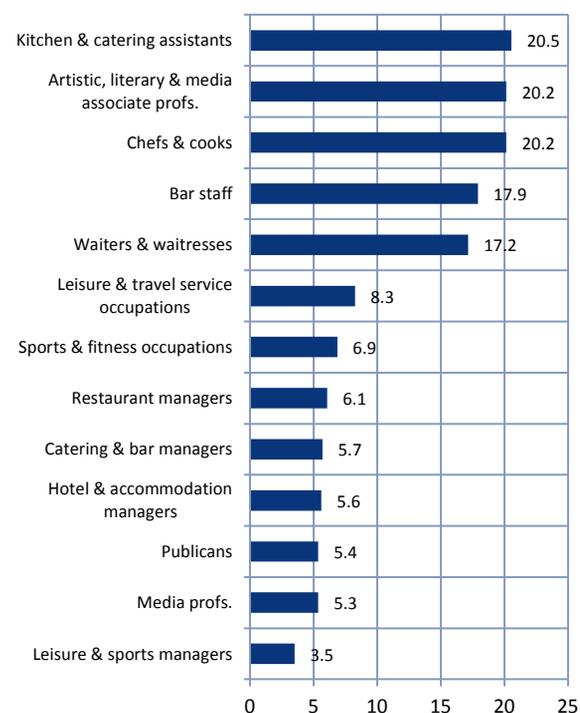
8.12 Arts, Sports and Tourism Occupations

- There were approximately 143,000 persons employed in the selected arts, sports and tourism occupations, accounting for 8% of Ireland's workforce
- The largest number of persons were employed in hotel, restaurant and publican related occupations (98,500), artistic, literary and media related occupations (25,400) and leisure, sports and travel occupations (18,700)
- Employment in the selected occupations decreased by 3.4% on average annually between 2007 and 2011; there were approximately 21,000 net job losses: the largest number of job losses was for waiting staff, chefs/cooks, kitchen and catering assistants and media professionals
- The workforce of bar staff was the youngest among the selected occupations – just over two fifths of those employed were younger than 25 years – one of the youngest workforces economy-wide; in contrast, the workforce of publicans was the most mature – almost two fifths of those employed was aged 55 and over
- Almost 90% of the overall workforce of media professionals held third level qualifications; in contrast, only 16% of the workforce of bar staff held third level qualifications
- The overall workforce of the selected occupations was gender balanced; however, there was a higher representation of females in the workforce of waiting staff, kitchen and catering assistants and leisure and travel service occupations, accounting for at least two thirds of each workforce; in contrast, at just over 70%, the workforce

of publicans had the highest share of males

- At 70%, the workforce of waiting staff had the highest share of persons who worked part-time – one of the highest shares among occupations in the national workforce; at just over 60%, the share was also relatively high for bar staff
- At almost two fifths, the workforce of kitchen and catering assistants had the highest share of non-Irish nationals, one of the highest shares across all occupations in the national workforce; the share was relatively high for the workforce of both waiting staff and restaurant and catering managers – at approximately one third each

Figure 8.12.1 Numbers Employed (000s) in Selected Arts, Sports and Tourism Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

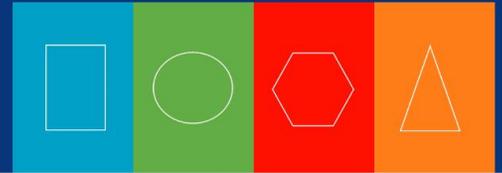
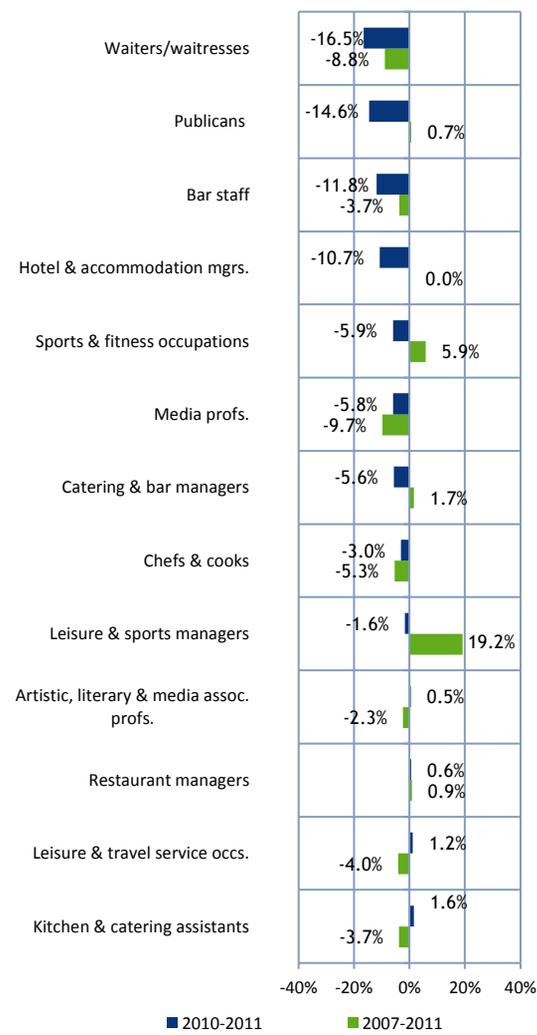


Figure 8.12.2 Average Annual Growth (%) in Selected Arts, Sports and Tourism Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.12.1 Age Profile of Selected Arts, Sports and Tourism Occupations, 2011

	15-24	25-54	55+	Total
Kitchen & catering				
assistants	17%	68%	15%	100%
Artistic, literary & media				
associate profs.	5%	84%	11%	100%
Chefs & cooks	4%	86%	10%	100%
Bar staff	42%	52%	6%	100%
Waiters & waitresses	37%	56%	7%	100%
Leisure & travel service				
occupations	9%	88%	3%	100%
Sports & fitness				
occupations	12%	80%	8%	100%
Restaurant managers	6%	89%	5%	100%
Catering & bar managers	5%	76%	19%	100%
Hotel & accommodation				
managers	0%	67%	33%	100%
Publicans	0%	63%	37%	100%
Media profs.	7%	82%	11%	100%
Leisure & sports				
managers	3%	83%	14%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

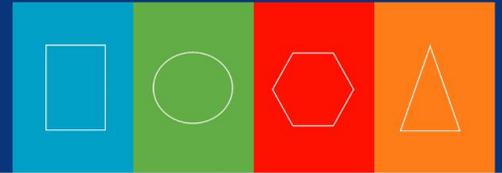


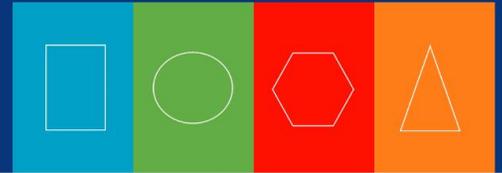
Table 8.12.2 Education Profile of Selected Arts, Sports and Tourism Occupations, 2011

	Lower secondary or less	Higher secondary or FET	3 rd level	Total
Kitchen & catering				
assistants	42%	41%	17%	100%
Artistic, literary & media				
associate profs.	7%	26%	67%	100%
Chefs & cooks				
	16%	47%	37%	100%
Bar staff				
	17%	67%	16%	100%
Waiters/waitresses				
	16%	57%	27%	100%
Leisure & travel service occupations				
	10%	48%	42%	100%
Sports & fitness occupations				
	7%	26%	67%	100%
Restaurant managers				
	12%	33%	55%	100%
Catering & bar managers				
	19%	45%	36%	100%
Hotel & accommodation managers				
	16%	34%	50%	100%
Publicans				
	34%	49%	17%	100%
Media profs.				
	2%	10%	88%	100%
Leisure & sports managers				
	6%	42%	52%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Shortage Indicators

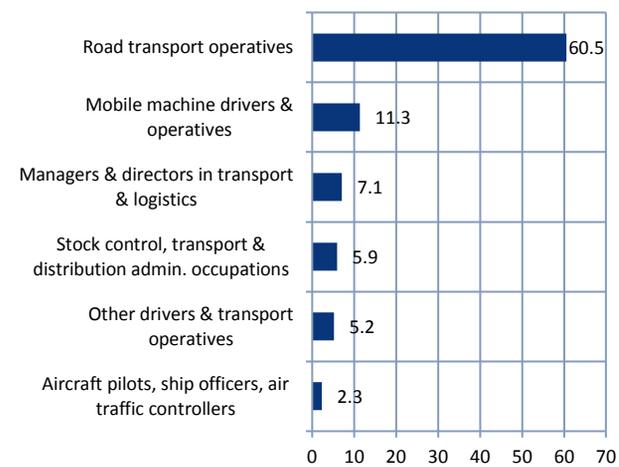
There are currently no shortages of arts, sports and tourism skills in Ireland. However, ethnic chefs continue to be sourced from the non-EEA area, with over 100 new employment permits issued in 2011.



8.13 Transport and Logistics Occupations

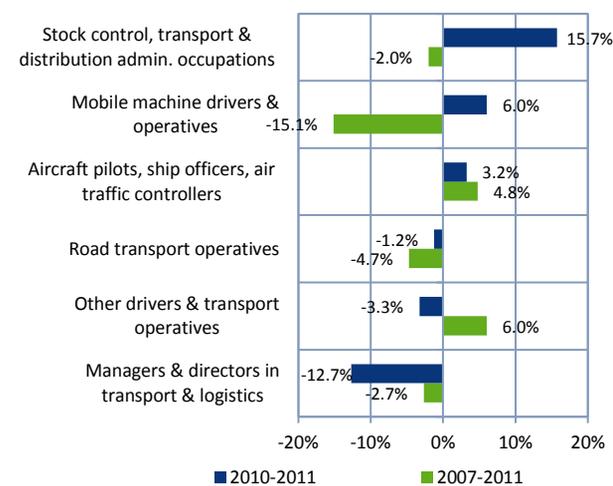
- There were approximately 92,000 persons employed in transport and logistics occupations, representing just over 5% of total national employment
- Just over 60,000 persons were employed as road transport operatives (mostly as taxi and cab drivers and chauffeurs; and large goods vehicle drivers), equivalent to almost two thirds of total employment in the selected occupations
- Employment contracted by 5.4% on average annually over the period 2007-2011, with approximately 23,000 net job losses recorded during that period – most of the job losses were for road transport operatives and mobile machine drivers & operatives
- Between 2010 and 2011, overall employment in the selected occupations declined by 0.5%, resulting in a small number of net job losses
- The age profile of the overall workforce of road transport operatives was the most mature among the selected occupations – just over one quarter of those employed was aged 55 and over; within this category, the highest share of workers aged 55 and over was for bus and coach drivers – at almost two fifths – one of the highest shares among operative occupations in the national workforce
- The overall workforce of transport and logistics occupations was predominantly male
- The overall workforce of transport and logistics occupations was skewed towards lower education levels; only 16% of all employed persons held third level qualifications, while over two fifths held lower secondary or less qualifications or higher secondary/FET qualifications

Figure 8.13.1 Numbers Employed (000s) in Selected Transport and Logistics Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

Figure 8.13.2 Average Annual Growth (%) in Selected Transport and Logistics Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

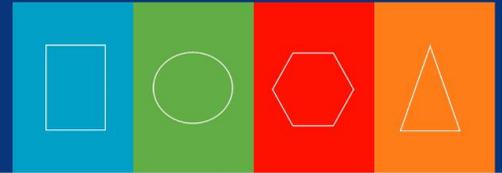


Table 8.13.1 Age Profile of Selected Transport and Logistics Occupations, 2011

	15-24	25-54	55+	Total
Road transport operatives	2%	71%	27%	100%
Mobile machine drivers & operatives	3%	83%	14%	100%
Managers & directors in transport & logistics	4%	81%	15%	100%
Stock control, transport & distribution admin. occupations	4%	93%	3%	100%
Other drivers & transport operatives	3%	81%	16%	100%
Aircraft pilots, ship officers, air traffic controllers	0%	96%	4%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

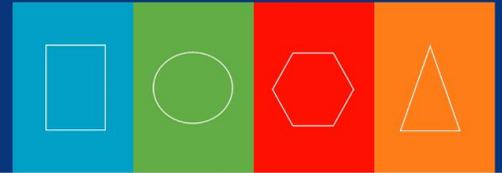
Table 8.13.2 Education Profile of Selected Transport and Logistics Occupations, 2011

	Lower secondary or less	Higher secondary or FET	Third level	Total
Road transport operatives	47%	43%	10%	100%
Mobile machine drivers & operatives	55%	41%	4%	100%
Managers & directors in transport & logistics	15%	47%	39%	100%
Stock control, transport & distribution admin. occupations	8%	51%	41%	100%
Other drivers & transport operatives	29%	58%	14%	100%
Aircraft pilots, ship officers, air traffic controllers	0%	20%	80%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Shortage Indicators

As a small open economy, Ireland's economic performance is strongly dependant on its capacity to effectively manage a range of business activities in a global context. The skills needed to support these business activities include proficiency in foreign languages, an ability to manage customer relations in an international context, and expertise in international supply chain management. There is some evidence to suggest that the skills mix available in these areas may not be sufficient to support growth in international trade.



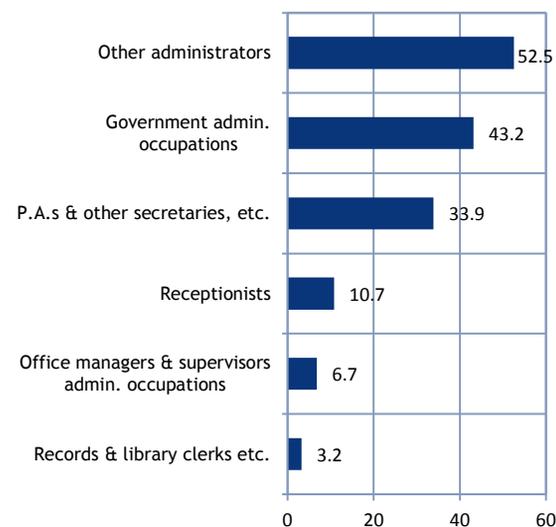
8.14 Administrative and Secretarial Occupations

- There were approximately 150,000 persons employed in administrative and secretarial occupations, representing 8.3% of total national employment
- Employment in the selected occupations was distributed across all sectors of the economy – the highest shares were concentrated in public administration and defence and healthcare – at almost 30% and 16% respectively
- Employment in the selected occupations declined by 4.6% on average annually over the period 2007-2011 – at a faster pace of contraction than that recorded for total national employment; approximately 31,000 net job losses were recorded; the largest number of net job losses was for other administrative occupations (10,700), personal assistants (P.A.s), other secretaries and related occupations (almost 8,800) and government administration occupations (6,600)
- Between 2010 and 2011, employment contracted by 6.9%, translating into approximately 11,000 net job losses; the largest number of job losses were for government administrative occupations, other administrative occupations and P.A.s, other secretaries and related occupations
- With the exception of records and library clerks and assistants, at least 70% of all persons employed in each occupation was aged 25-54; the workforce of receptionists was the youngest, with 11% of all employed persons aged 15-24; in contrast, it was the most mature for records and library clerks, with over two fifths of those employed aged 55 and over
- The share of the overall workforce who held lower secondary or less qualifications

was above the national average, while the share who held third level qualifications was below national average; the workforce of receptionists had the lowest level of educational attainment among the selected occupations – approximately 15% of all employed persons held lower secondary or less qualifications, while 20% held third level qualifications

- Employment in administrative and clerical occupations was predominantly female: at least 70% of employment in each occupation was female
- Just over one half of all employed receptionists worked part-time; the share of persons in part-time employment was also relatively high for P.A.s, other secretaries and related occupations, at just over two fifths

Figure 8.14.1 Numbers Employed (000s) in Selected Administrative and Secretarial Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

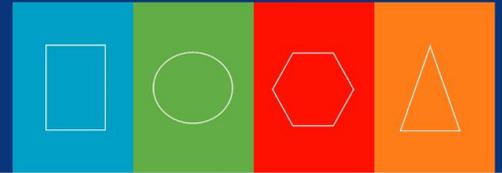
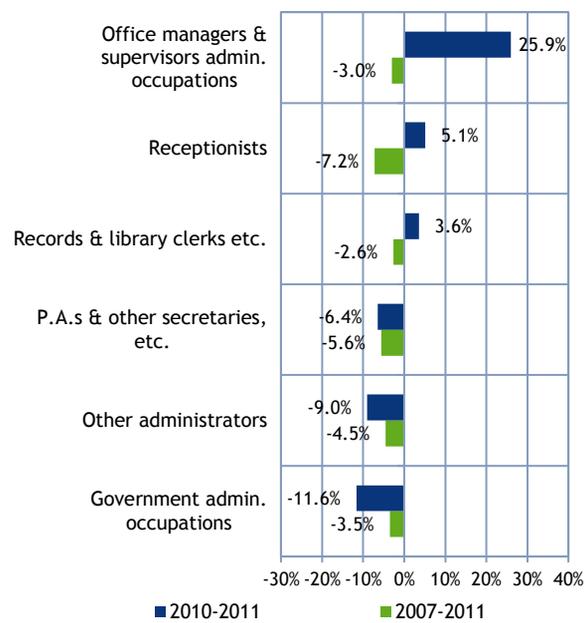


Figure 8.14.2 Average Annual Growth (%) in Selected Administrative and Secretarial Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.14.1 Age Profile of Selected Administrative and Secretarial Occupations, 2011

	15-24	25-54	55+	Total
Other administrators	6%	79%	15%	100%
Government admin. occupations	1%	89%	10%	100%
P.A.s & other secretaries etc.	2%	74%	24%	100%
Receptionists	11%	70%	19%	100%
Office managers & supervisors admin. occupations	2%	73%	25%	100%
Records & library clerks etc.	0%	55%	45%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.14.2 Education Profile of Selected Administrative and Secretarial Occupations, 2011

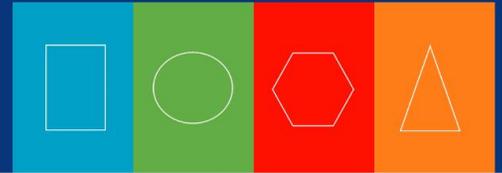
	Lower secondary or less	Higher secondary or FET	Third level	Total
Other administrators	8%	54%	38%	100%
Government admin. occupations	5%	59%	36%	100%
P.A.s & other secretaries etc.	8%	58%	34%	100%
Receptionists	26%	45%	30%	100%
Office managers & supervisors admin. occupations	16%	64%	20%	100%
Records & library clerks etc.	7%	43%	50%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Shortage Indicators

While there are currently no shortages of administrative and secretarial skills in general, there are indications that some multilingual roles in niche areas (e.g. credit control, accounts payable, specialist roles in supply chain operations) are proving difficult to fill.

Most of the job openings for administrative and secretarial skills are expected to arise from the replacement of those who leave through retirement and other exits. Some expansion is expected as administrative roles will be needed to support expanding sectors (e.g. IT, finance, etc.). However, the increasing automation of business processes, underpinned by information technology, will negatively impact on the demand for administrative skills in the long-term.

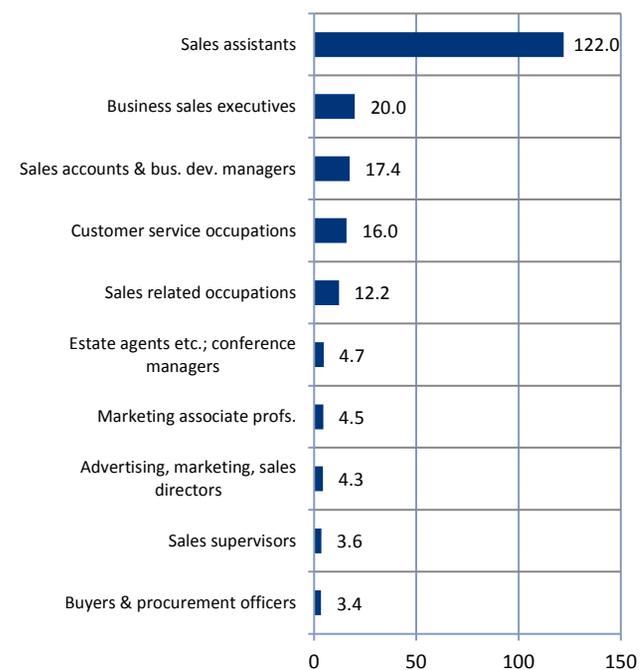


8.15 Sales and Customer Service Occupations

- There were approximately 208,000 persons employed in sales and customer services occupations, accounting for 11.5% of Ireland's workforce
- Just over three fifths of total employment was in the wholesale and retail sector
- The largest occupation was sales assistants, with 122,000 persons employed
- Between 2007 and 2011, overall employment in the selected occupations declined by 2.2% on average annually – resulting in approximately 19,000 net job losses; while the absolute decline in employment was relatively modest for some occupations, it was significant for sales assistants – with 16,800 job losses; at the same time, the largest increase in employment was recorded for sales accounts and business development managers – with 3,900 jobs created
- Between 2010 and 2011, overall employment in the selected occupations increased by 1.7%; the number of jobs created exceeded the number of job losses, resulting in a net 3,500 additional jobs; the largest number of jobs was created for sales accounts and business development managers and sales assistants, while the largest number of job losses was for business sales executives
- The age profile of the workforce of sales assistants was one of the youngest economy-wide – approximately one third of those employed was aged 15-24; in contrast, the workforce of estate agents and related occupations was the most mature among the selected occupations, with one quarter of those employed aged 55 and over

- The gender distribution of the workforce varied by occupation: at least 60% of the overall workforce of both sales assistants and customer service occupation was female; just over 70% of the workforce of both advertising, marketing and sales directors; and business sales executives was male, while the workforce of buyers and procurement officers, marketing associate professionals and sales supervisors was almost gender balanced
- Over one half of the overall workforce of sales assistants worked part-time – over twice the share for the national average

Figure 8.15.1 Numbers Employed (000s) in Selected Sales and Customer Service Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

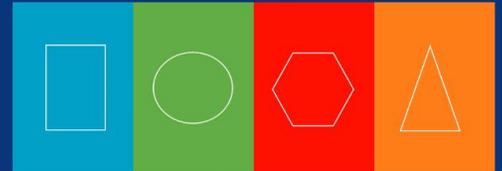
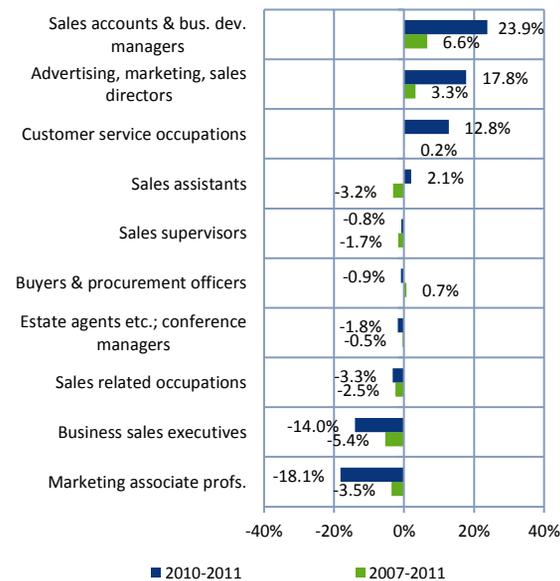


Figure 8.15.2 Average Annual Growth (%) in Selected Sales and Customer Service Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.15.1 Age Profile of Selected Sales and Customer Service Occupations, 2011

	15-24	25-54	55+	Total
Sales assistants	32%	59%	9%	100%
Business sales executives	7%	82%	11%	100%
Sales accounts & bus. dev. managers	0%	90%	10%	100%
Customer service occupations	14%	76%	11%	100%
Sales related occupations	3%	74%	23%	100%
Estate agents etc. & conference managers	2%	74%	24%	100%
Marketing associate profs.	12%	78%	10%	100%
Advertising, marketing, sales directors	1%	85%	14%	100%
Sales supervisors	10%	81%	10%	100%
Buyers & procurement officers	8%	89%	3%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.15.2 Education Profile of Selected Sales and Customer Service Occupations, 2011

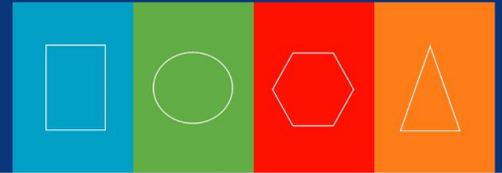
	Lower secondary or less	Higher secondary or FET	Third level	Total
Sales assistants	20%	59%	21%	100%
Business sales executives	12%	38%	50%	100%
Sales accounts & bus. dev. managers	4%	23%	72%	100%
Customer service occupations	10%	47%	43%	100%
Sales related occupations	20%	41%	39%	100%
Estate agents etc.; conference mgrs.	2%	32%	66%	100%
Marketing associate profs.	4%	8%	88%	100%
Advertising, marketing, sales directors	8%	20%	72%	100%
Sales supervisors	19%	65%	16%	100%
Buyers & procurement officers	2%	24%	73%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Shortage Indicators

Shortages of the following sales and customer service support skills have been identified:

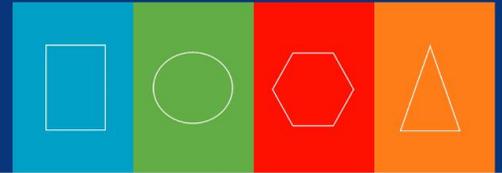
- contact centres roles for candidates fluent (mostly at native proficiency level) in one or more European languages (e.g. German, Italian, French and Nordic)); the demand was often for language skills combined with relevant product knowledge
- online marketing and sales roles (across a variety of sectors, e.g. IT, gaming)
- senior technical and specialised sales representatives, often in a business-to-



business (B2B) capacity (e.g. IT, telecommunications, gaming, FMCG⁹⁴).

The strong demand for sales and customer support skills is illustrated in job announcements by IDA client companies and in the media (e.g. Paypal, Eishtec, HCL Technologies, etc.).

⁹⁴ FMCG (Fast Moving Consumer Goods).

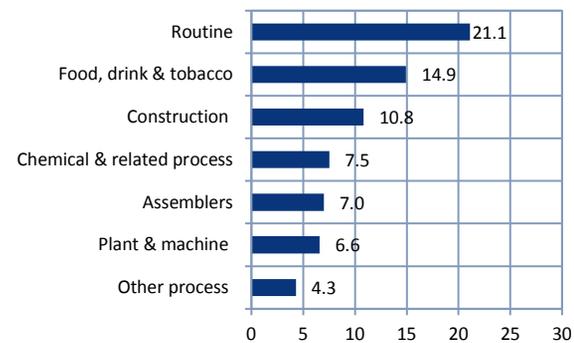


8.16 Operatives

- There were approximately 72,000 persons employed in operative occupations, accounting for 4% of Ireland's workforce
- Employment of operatives was predominantly concentrated in manufacturing (mainly in the following areas: food products; machinery and equipment; basic pharmaceuticals and pharmaceutical preparations; and computer, electronic and optical products) and construction
- Employment of operatives grew at an average annual rate of 1.5% (in contrast to negative national growth of 3.9% on average annually) between 2007 and 2011; there were approximately 4,000 net job gains over that period, the largest absolute increase in employment was for food, drink and tobacco operatives (9,300), while the largest decrease was for plant and machine operatives (6,500)
- Between 2010 and 2011, employment of operatives expanded by 20%, resulting in 12,000 net additional jobs; most of the job creation was for food, drink and tobacco operatives and routine process operatives
- Construction operatives had the most mature workforce among the selected occupations – with just over one fifth aged 55 and over
- The overall educational attainment levels of operatives was skewed towards the lower end of the skills spectrum – one of the lowest education profiles economy-wide; the share of all employed persons in each occupation who held lower secondary or less qualifications (excluding assemblers) and higher secondary/FET qualifications was above well above the national average

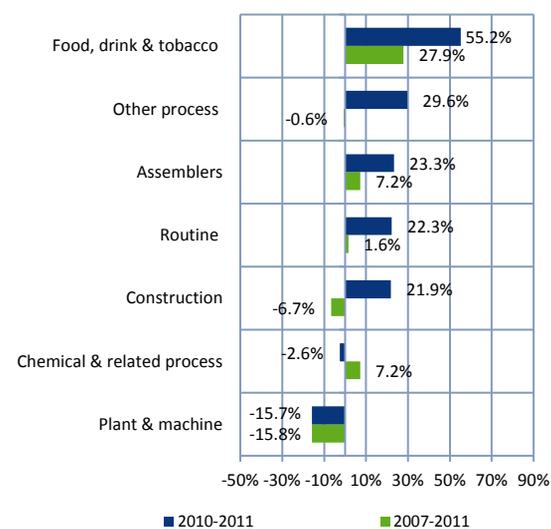
- The share of non-Irish nationals represented in the workforce of most operative occupations exceeded the national average; at 45%, the highest share was for food, drink and tobacco operatives
- With the exception of assemblers and other routine operatives, the workforce of each occupation was predominantly male

Figure 8.16.1 Numbers Employed (000s) in Selected Operatives and Related Occupations, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

Figure 8.16.2 Average Annual Growth (%) in Selected Operatives and Related Occupations



Source: Analysis by FÁS (SLMRU) based on CSO data

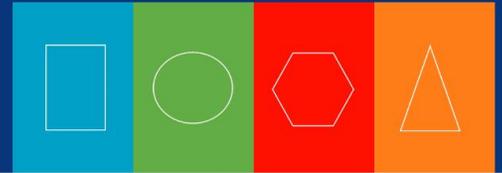


Table 8.16.1 Age Profile of Selected Operatives and Related Occupations, 2011

	15-24	25-54	55+	Total
Routine	6%	86%	8%	100%
Food, drink and tobacco	8%	83%	9%	100%
Construction	5%	74%	21%	100%
Chemical & related	5%	83%	12%	100%
Assemblers	2%	94%	4%	100%
Plant & machine	3%	87%	10%	100%
Other process	4%	86%	10%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

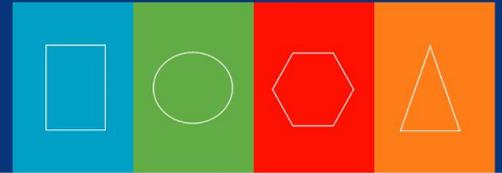
Table 8.16.2 Education Profile of Selected Operatives and Related Occupations, 2011

	Lower secondary or less	Higher secondary or FET	Third level	Total
Routine	23%	49%	28%	100%
Food, drink and tobacco	30%	53%	17%	100%
Construction	47%	46%	7%	100%
Chemical & related	25%	53%	22%	100%
Assemblers	13%	63%	24%	100%
Plant & machine	37%	52%	11%	100%
Other process	33%	46%	21%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Shortage Indicators

There are currently no shortages of operatives in Ireland.



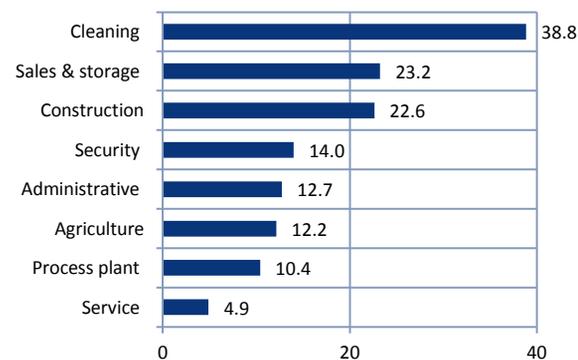
8.17 Labourers and Occupations Not Elsewhere Classified (N.E.C.)⁹⁵

- There were approximately 139,000 persons employed as labourers, representing 7.7% of Ireland’s workforce
- Approximately 85,000 or just over 60% of all persons employed as labourers were engaged in cleaning services, sales and storage services and construction activities
- Employment in the selected occupations contracted by 10.7% on average annually over the period 2007-2011 – the most rapid pace of contraction observed among the 17 occupational groups examined in this report, after construction craft occupations; this overall decline translated into approximately 79,000 net job losses over that period; most of the job losses were for construction and process plant labourers
- Between 2010 and 2011, approximately 8,600 net job losses were experienced across all occupations; the largest absolute decline in employment was recorded for construction labourers – at almost 14,000; in contrast, the largest absolute increase in employment was for cleaning occupations
- Approximately one fifth of the workforce of labourers in both cleaning and security services was aged 55 and over – the most mature workforces among the selected occupations
- One fifth of all persons employed as labourers in cleaning and security services were aged 55 and over – the most mature workforces among the selected occupations

⁹⁵There are a number of occupations discussed in this section which, for simplicity purposes, are referred to as labourers; these include cleaners, porters, sorters, various types of mates and other occupations not elsewhere classified.

- The share of the overall workforce of labourers who held higher secondary/FET qualifications and lower secondary or less qualifications was above the national average – at 47% and 39% respectively; in contrast, only 14% of persons held third level qualifications – significantly below the national average of 45%
- The workforce of all types of labourers was predominantly male, with the exception of labourers in cleaning, with just over 70% female
- Approximately two fifths of the overall workforce of both labourers in cleaning and process plant was composed of non-Irish nationals – the highest representation of non-Irish nationals in the national workforce
- The unemployment rate for most of the selected types of labourers exceeded the national average; at 42%, the highest rate was for labourers in construction
- The prevalence of part-time work among labourers in cleaning services was one of the highest economy-wide – almost two fifths of the overall workforce worked part-time (at just over three fifths for cleaners and domestics)

Figure 8.17.1 Numbers Employed (000s) as Labourers, 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

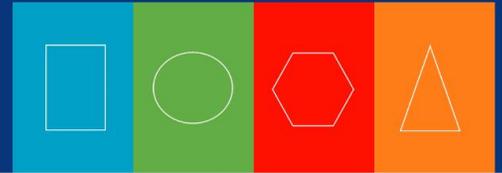
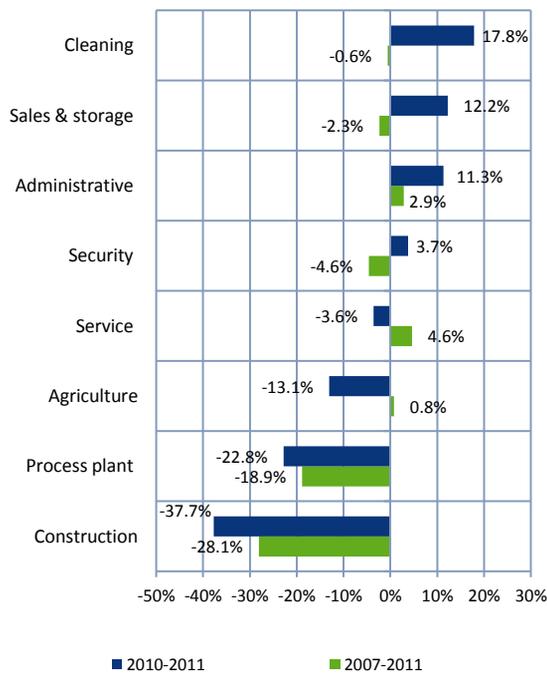


Figure 8.17.2 Average Annual Growth (%) of Labourers



Source: Analysis by FÁS (SLMRU) based on CSO data

Table 8.17.1 Age Profile of Labourers, 2011

	15-24	25-54	55+	Total
Cleaning	5%	75%	20%	100%
Sales & storage	15%	76%	9%	100%
Construction	11%	73%	16%	100%
Security	4%	75%	21%	100%
Administrative	3%	79%	18%	100%
Agriculture	18%	69%	13%	100%
Process plant	18%	72%	10%	100%
Service	18%	61%	15%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

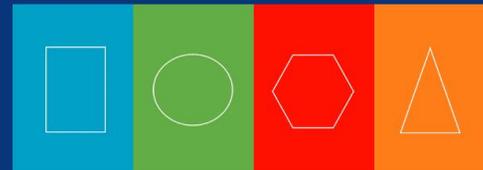
Table 8.17.2 Education Profile of Labourers, 2011

	Lower secondary or less	Higher secondary /FET	Third level	Total
Cleaning	47%	42%	11%	100%
Sales & storage	33%	46%	21%	100%
Construction	48%	45%	7%	100%
Security	26%	49%	25%	100%
Administrative	35%	53%	12%	100%
Agriculture	34%	52%	14%	100%
Process plant	31%	54%	15%	100%
Service	36%	52%	12%	100%

Source: Analysis by FÁS (SLMRU) based on CSO data

Shortage Indicators

There are no shortages of labourers in Ireland at present. However, there are issues in sourcing cleaners and kitchen assistants domestically. Approximately 40% of those employed in both occupations was non-Irish – the inflow of workers from non-EEA countries in these occupations continued throughout the recession – with over 150 new employment permits issued in 2011.



Section 9 Unemployment

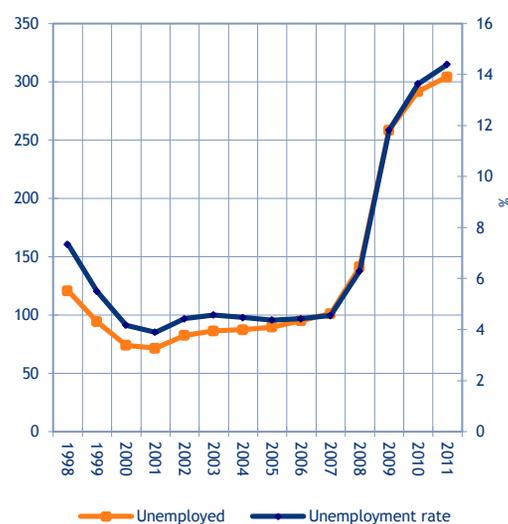
9.1 Unemployment and Unemployment Rate

Figure 9.1 presents average annual unemployment levels and unemployment rates for the period 1998-2011. Following years of low unemployment, the number of persons seeking employment surged during 2009, followed by additional, although significantly smaller, increases in 2010 and 2011.

In 2011, the number of persons seeking employment was 304,000, which was 13,000 more than the average for 2010. Importantly, this increase was less than half of that observed in the previous year. Moreover, between the last two quarters of 2011, unemployment actually decreased.

The average annual unemployment rate in 2011 was 14.4%. While this is an increase of 0.8 percentage points on the previous year, the rate actually declined between the last two quarters of 2011.

Figure 9.1 Annual Average Unemployment Level (000s) and Unemployment Rate (%)



Source: Analysis by FÁS (SLMRU) based on CSO data

9.2 Unemployment by Occupation

Figure 9.2 presents the occupational distribution of unemployment.⁹⁶ In quarter 4 2011, over one in five unemployed persons had previously been employed as a skilled tradesperson. This was followed by elementary occupations, many of which were construction labourers.

Between quarter 4 2010 and quarter 4 2011, the share of skilled tradespersons in the unemployment stock decreased by three percentage points.

⁹⁶ Classified using the occupation code of the previous employment (if any) of the respondent.

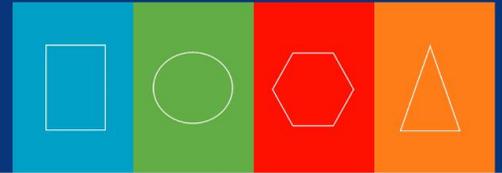
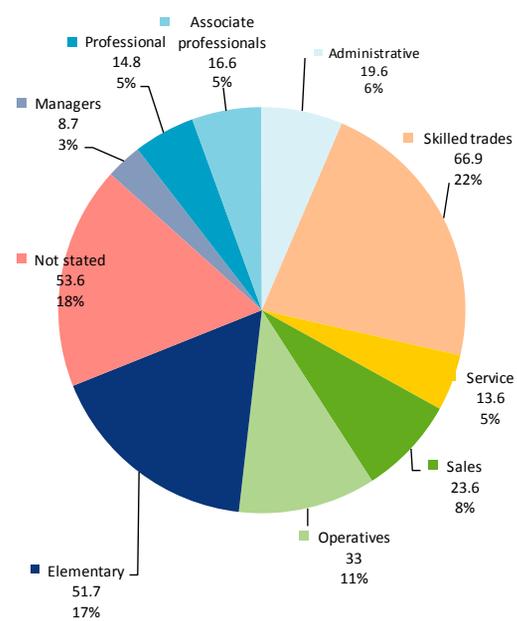


Figure 9.2 Unemployment by Occupation* (000s; %), Quarter 4 2011

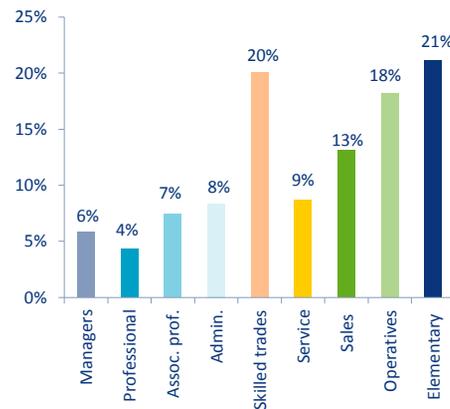


Source: Analysis by FÁS (SLMRU) based on CSO data

* Includes those with no previous occupation

As in quarter 4 2010, at least 20% each, the highest unemployment rate was recorded for elementary occupations and skilled tradespersons. This was five times higher than the unemployment rate of just over 4% for professionals. The unemployment rate of 'white collar' occupations remained in single-digits, as it did for service occupations.

Figure 9.3 Unemployment Rate by Occupation, Quarter 4 2011

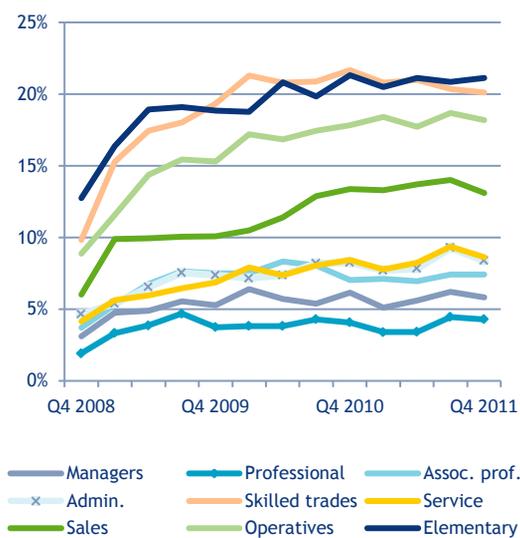


Source: Analysis by FÁS (SLMRU) based on CSO data

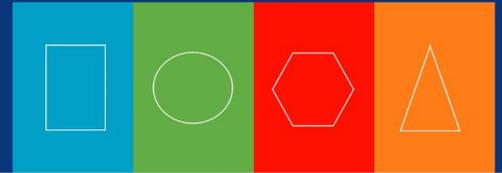
Note: Persons whose occupation was not stated are not included

While the unemployment rate increased for all occupations between quarter 4 2008 and quarter 4 2010, there was a small decline in the rate for most occupations in the last quarter of 2011.

Figure 9.4 Unemployment Rate by Occupation



Source: Analysis by FÁS (SLMRU) based on CSO data

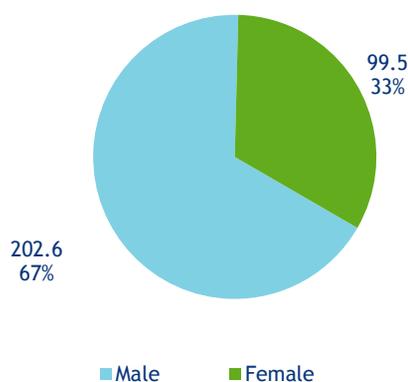


The unemployment rate of professionals has remained below 5% over the last three years, while that of managers lingered at just above 5%. On the other hand, the unemployment rate of skilled tradespersons and those in elementary occupations hovered around 20%, with tentative signs of a decline for the former towards the end of 2011 (Figure 9.4).

9.3 Unemployment by Gender

Figure 9.5 shows the gender distribution of unemployed persons. In quarter 4 2011, two thirds of unemployed persons were male. The share of males decreased by one percentage point compared to quarter 4 2010.

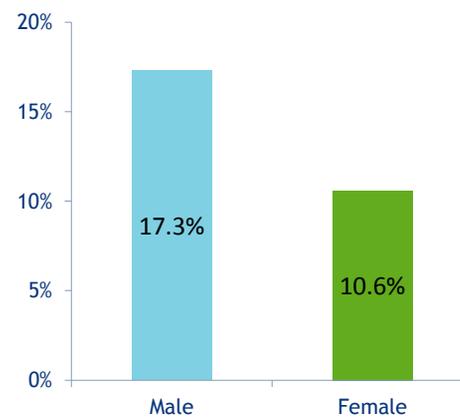
Figure 9.5 Unemployment by Gender, Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

In quarter 4 2011, the unemployment rate of females was 7 percentage points lower than that of males (Figure 9.6). There was little change in the unemployment rate of both genders between quarter 4 2010 and quarter 4 2011, with the exception of a half a percentage point rise in the female unemployment rate.

Figure 9.6 Unemployment Rate by Gender, Quarter 4 2011

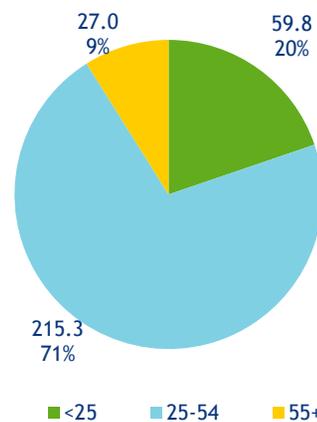


Source: Analysis by FÁS (SLMRU) based on CSO data

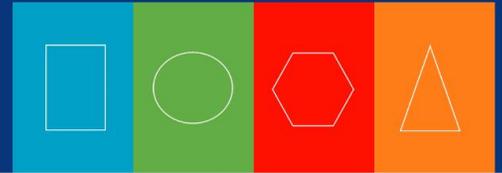
9.4 Unemployment by Age

Figure 9.7 presents the age distribution of unemployed persons. In quarter 4 2011, one in five unemployed persons was younger than 25, with those aged 55 or over accounting for just under 10%. This is broadly in line with the age distribution of the unemployed observed one year previously.

Figure 9.7 Unemployment by Age (000s), Quarter 4 2011



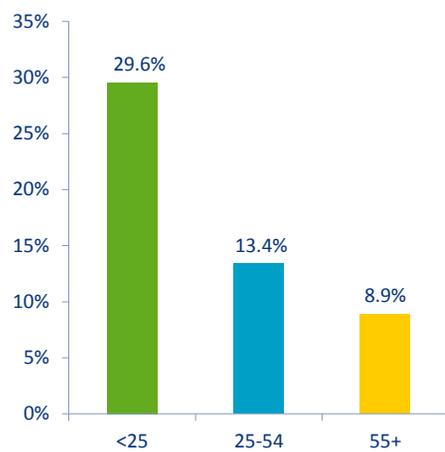
Source: Analysis by FÁS (SLMRU) based on CSO data



At almost 30%, the unemployment rate of the under 25s was more than twice higher than that of persons aged 25-54 and more than three times higher than that of persons aged 55 and over.

Between quarter 4 2010 and quarter 4 2011, the unemployment rate for each age cohort remained broadly the same, with changes of a magnitude less than one percentage point.

Figure 9.8 Unemployment Rate by Age, Quarter 4 2011

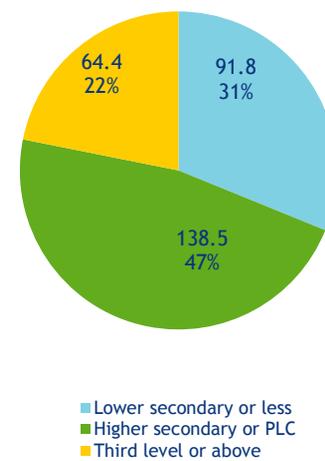


Source: Analysis by FÁS (SLMRU) based on CSO data

9.5 Unemployment by Education

Unemployment by education level categories is presented in Figure 9.9. In quarter 4 2011, almost one in three unemployed persons had less than higher secondary education, while just over one in five had a third level qualification. The distribution was broadly in line with that observed a year previously, with third level graduates losing one percentage point in share.

Figure 9.9 Unemployment by Education, Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

Figure 9.10 presents the unemployment rate for different educational levels of the unemployed for quarter 4 2011. At 25%, the unemployment rate of persons holding less than higher secondary education was three times higher than the unemployment rate of third level graduates, which remained below 10%.

Between quarter 4 2010 and quarter 4 2011, the unemployment rate of early school leavers increased by 1.5 percentage points and that of holders of higher secondary education or FET qualification by less than one percentage point.

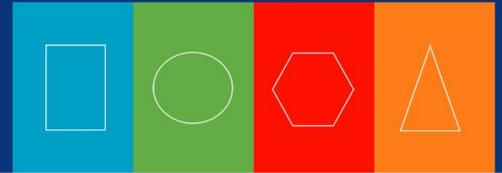
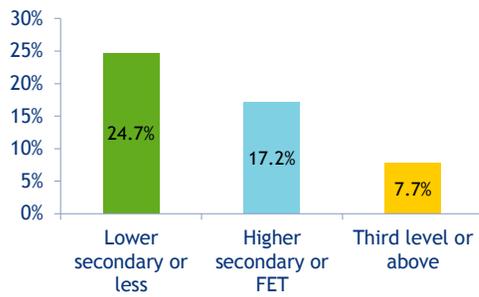


Figure 9.10 Unemployment Rate by Education, Quarter 4 2011

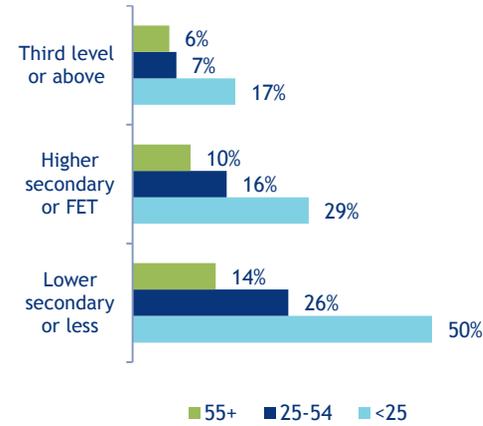


Source: Analysis by FÁS (SLMRU) based on CSO data

Figure 9.11 shows unemployment rates for different levels of education and different age cohorts. In quarter 4 2011, those at greatest risk of unemployment were aged under 25 with the lowest level of education attainment. Younger age cohorts had a higher unemployment rate at all education levels, so that even third level graduates who were younger than 25 had an unemployment rate of 17%. The lowest unemployment rate was amongst older third level graduates.

This is broadly in line with the unemployment rates observed a year previously, although the rates for all age cohorts in the lower secondary or less education category increased by 1-2 percentage points.

Figure 9.11 Unemployment Rate by Education and Age, Quarter 4 2011

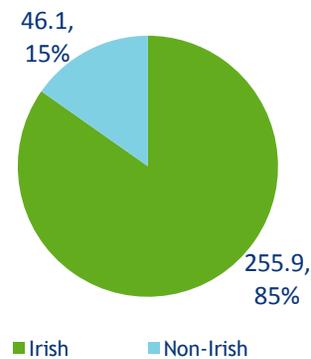


Source: Analysis by FÁS (SLMRU) based on CSO data

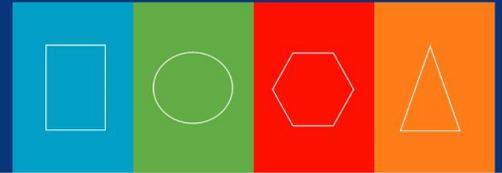
9.6 Unemployment by Nationality

Figure 9.12 shows the distribution of unemployed persons by nationality. In quarter 4 2011, 85% of the unemployed were Irish nationals. The share of non-Irish nationals decreased compared to quarter 4 2011 by two percentage points to 15%.

Figure 9.12 Unemployed by Nationality (%), Quarter 4 2011

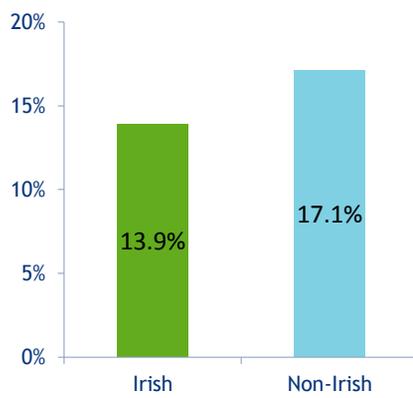


Source: Analysis by FÁS (SLMRU) based on CSO data



The unemployment rate of non-Irish nationals was three percentage points higher than that of Irish nationals (Figure 9.13). However, between quarter 4 2010 and quarter 4 2011, the unemployment rate of non-Irish nationals decreased by over one percentage point, while that of Irish nationals increased marginally (by 0.4 percentage points).

Figure 9.13 Unemployment Rate by Nationality, Quarter 4 2011



Source: Analysis by FÁS (SLMRU) based on CSO data

9.7 Unemployment by Sector

Unemployment and unemployment rates by sector are presented in Table 9.1. In quarter 4 2011, one in four unemployed persons had previously worked in the construction sector. With over 35,000 unemployed in each sector, wholesale/retail and industry each accounted for over 10% of unemployment.

At 40%, the unemployment rate of construction workers was by far the highest of all sectors. Other sectors with an

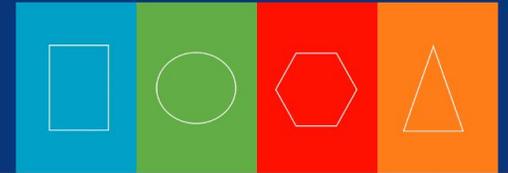
unemployment rate of over 10% included administrative services, accommodation/food, transportation, industry and wholesale/retail. The lowest unemployment rate was in the public administration/defence and financial sectors.

Between quarter 4 2010 and quarter 4 2011, the unemployment rate decreased in the construction and financial sectors (two percentage points each) and ICT and wholesale/retail sectors (one percentage point each). On the other hand, it increased in the transportation, professional services and education sectors (one percentage point each).

Table 9.1 Unemployment by Sector, Quarter 4 2011

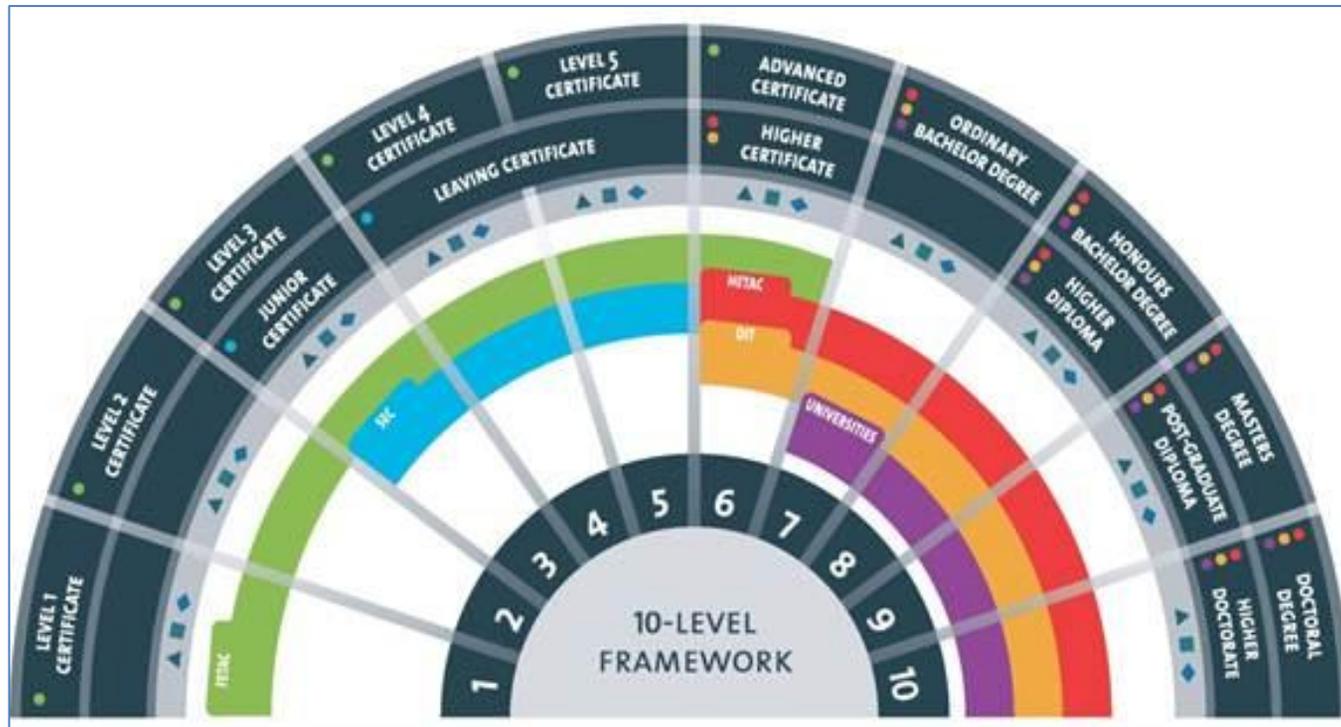
Sector	Unemployed	Unemployment rate
Agriculture	4.2	4.9%
Industry	36.3	13.1%
Construction	72.3	40.2%
Wholesale/retail	37.3	12.5%
Transportation	10.6	10.4%
Accomm./food	19.1	14.4%
ICT	6.5	8.0%
Finance	4.3	4.1%
Prof. services	10.1	9.7%
Admin. service	12.2	16.2%
PAD	4.1	3.8%
Education	8.0	5.3%
Health	12.6	5.0%
Other	10.7	10.3%
Total	302.0	14.3%

Source: Analysis by FÁS (SLMRU) based on CSO data



APPENDIX A

Figure A: National Framework of Qualifications

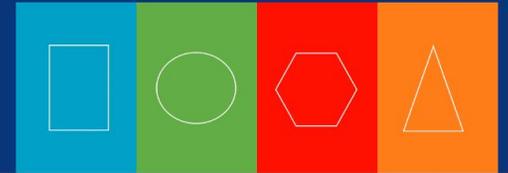


Source: NQAI

The structure of the Framework is based on levels and award types, which are outlined in Figure A above. There are ten award levels, which indicate the standard of learning (ranging from the most basic to doctoral awards). The learning outcomes associated with each NFQ level are provided in Appendix A. There are also four award-type categories, which serve as an indicator of the purpose, volume and progression opportunities associated with a particular award⁹⁷.

- A **major award** is the main class of award made at any given level; examples of major awards include the Leaving Certificate, a FETAC major certificate or an honours bachelor degree.
- A **minor award** provides recognition for learners who achieve a range of learning outcomes but not the specific combination of learning outcomes required for a major award. A minor award is linked to a major award.
- A **Special Purpose award** is made for very specific purposes; an example of a special-purpose award is site suitability for wastewater treatment.
- 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.

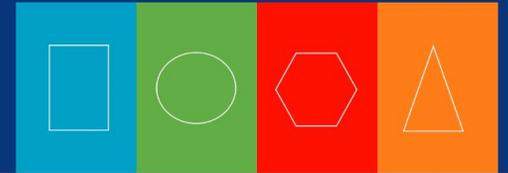
⁹⁷Source: National Qualifications Authority of Ireland (NQAI).



APPENDIX B

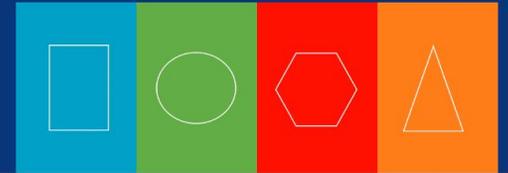
Appendix B1 Training providers whose main activities are focused on the provision of education and training:

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



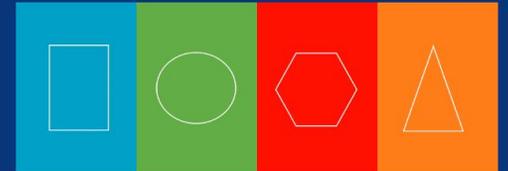
Appendix B2 Training providers for whom education and training is only one part of their service provision:

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



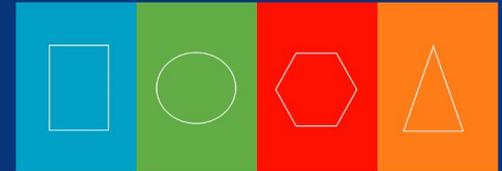
Appendix B3 Professional Bodies

Association of Chartered Certified Accountants
Association of International Accountants
Institute of Chartered Accountants in England & Wales
Institute of Chartered Accountants in Ireland
Institute of Chartered Accountants of Scotland
Institute of Certified Public Accountants in Ireland
Institute of Incorporated Public Accountants
Chartered Institute of Management Accountants
Chartered Institute of Public Finance and Accountancy
The Law Society
Institute of Bankers
Irish Tax Institute



Members of the Expert Group on Future Skills Needs

Una Halligan	Chairperson
Marie Bourke	Head of Secretariat and Department Manager, Education, Skills and Labour Market Policy, Forfás
Inez Bailey	Director, National Adult Literacy Agency
Peter Baldwin	Assistant Secretary, Department of Education and Skills
George Bennett	Departmental Manager, Clean Tech, IDA Ireland
Liz Carroll	Training and Development Manager, ISME
Ned Costello	Chief Executive, Irish Universities Association
Margaret Cox	Managing Director, I.C.E. Group
Tony Donohoe	Head of Education, Social and Innovation Policy, IBEC
Dr Bryan Fields	Director, Curriculum Development/Programme Innovation, FÁS
Anne Forde	Principal Officer, Department of Education and Skills
Garry Keegan	Director, Acumen
Enda McDonnell	Sectoral and Enterprise Development Policy, Enterprise Ireland
John Martin	Director for Employment, Labour & Social Affairs, OECD
Frank Mulvihill	Former President of the Institute of Guidance Counsellors
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 D. Shanahan	Chief Executive, Forfás
Jacinta Stewart	Chief Executive, City of Dublin VEC



Recent Publications by the Expert Group on Future Skills Needs

Report	Publication Date
Key Skills for Enterprise to Trade Internationally	June 2012
EGFSN Statement of Activity 2011	April 2012
Vacancy Overview 2011	February 2012
Guidance for Higher Education Providers on Current and Future Skills Needs of Enterprise (<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
Developing Recognition of Prior Learning: The Role of RPL in the Context of the National Skills Strategy Upskilling Objectives	April 2011
Vacancy Overview 2010	March 2011
Future Skills Needs of Enterprise within the Green Economy in Ireland	November 2010
Future Skills Requirements of the Biopharma-Pharmachem Sector	November 2010
Monitoring Ireland's Skills Supply - Trends in Education and Training Outputs 2010	July 2010
National Skills Bulletin 2010	July 2010
Future Skills Needs of the Wholesale and Retail Sector	May 2010
Future Skills Requirements of the Food and Beverage Sector	November 2009
Skills in Creativity, Design and Innovation	November 2009
Monitoring Ireland's Skill Supply - Trends in Education and Training Outputs 2009	November 2009
National Skills Bulletin 2009	July 2009
A Quantitative Tool for Workforce Planning in Healthcare: Example Simulations	June 2009
A Review of the Employment and Skills Needs of the Construction Industry in Ireland	December 2008
Statement on Raising National Mathematical Achievement	December 2008
National Skills Bulletin 2008	November 2008
All-Island Skills Study	October 2008
Monitoring Ireland's Skills Supply: Trends in Education/Training Outputs 2008	July 2008
The Expert Group on Future Skills Needs Statement of Activity 2007	June 2008

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